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31 March 2012

Army Programs
CORPS OF ENGINEERS CIVIL WORKS DIRECT PROGRAM
PROGRAM DEVELOPMENT GUIDANCE
FISCAL YEAR 2014

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DEPARTMENT OF THE ARMY
U. S. Army Corps of Engineers
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EXPIRES 31 MARCH 2013
Army Programs
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SECTION 1

1. Purpose. This Engineer Circular (EC) provides guidance for the development and submission of the Corps of Engineers direct Civil Works (CW) Program for Fiscal Year 2014 (FY 14). This guidance develops the CW Program around:

a. Eight business lines:

Emergency Management (EM);
Environment (EN);
Flood Risk Management (FRM);
Hydropower (H);
Navigation (N);
Recreation (RC);
Regulatory (RG);
Water Supply (WS), and

b. Three main funding accounts:

Investigations (I);
Construction (C);
Operation and Maintenance (O&M) and

c. Three functional programs:

Expenses (E);
Revolving Fund - Plant Replacement and Improvement Program (PRIP); and the
Automation Program (AP)

This EC supersedes EC 11-2-200 dated 31 March 2011

d. Appendix A contains a list of references used in this document. Appendices B thru I provide specific program development guidance for each of eight business lines; Annexes I - III provide generic guidance for the three main funding accounts cutting across all business lines, as applicable; and Annexes IV - VI provide program development guidance for each of three functional programs.

e. Specifically excluded from this guidance are mandatory program activities, such as those funded by Permanent Appropriations (PA) and the Coastal Wetlands Restoration Trust Fund (CWRTF).

2. Applicability. This EC applies to all Corps of Engineers Headquarters (HQUSACE) elements, Major Subordinate Commands (MSCs), districts and field operating activities (FOAs) having Civil Works Program responsibilities.

3. Distribution Statement. This information is approved for public release. Distribution is unlimited.

4. References. See Appendix A.

5. Conventions. The following conventions are used for selected one-year periods:

CCY = current calendar year (yr.)

CFY = current fiscal yr. (extending from 1 October CCY to 30 September CCY+1 before January, latest, and 1 October CCY-1 to 30 September CCY thereafter)

PY = program year (CFY+2 before 1 October, next, and CFY+1 thereafter) = FY 14

PY-1 = 1 yr. before PY = FY 13

PY-2 = 2 yrs. before PY (CFY before 1 October, next, and CFY-1 thereafter) = FY 12

PY-3 = 3 yrs before PY (CFY-1 before 1 October, next, and CFY-2 thereafter) = FY 11

PY + N = program year plus N fiscal yrs.

Note: 1 October of PY-1 is 1 October of CCY, until 1 January, next, when it becomes 1 October of CCY-1.

6. Program Development – Special Policy, Guidance and Initiatives for FY 14.

a. Impacts to the FY 14 Budget Submittal. In addition to OMB budget guidance which is normally received in the June PY-2 timeframe for the PY President's budget, field units must consider the outcome of the FY 12 President's budget when developing the FY 14 budget submission to HQUSACE.

b. Transparency in the Budget Submission. Reference GAO report dated April 2, 2010, entitled: "Army Corps of Engineers: Budget Formulation Process Emphasizes

Agency-wide Priorities, but Transparency of Budget Presentation Could be Improved” (GAO-10-453). The report addresses Congress’ concern that they lack knowledge of the full level of funding resources available to studies/projects when making appropriation decisions on the PY budget request. Specifically, the GAO report supports Congress’ claim that the Corps budget presentations (J-sheets) do not provide sufficient information on project unobligated “carry-in” funds to enable them to fully evaluate the project budget request. To satisfy Congress’ need for full disclosure of study funding in the PY, the GI, CG and O&M J-sheet templates have been modified to include estimated unobligated carry-in funds that will be available to help accomplish the PY study activities.

c. Corps of Engineers Civil Works Strategic Plan. The Corps CW Strategic Plan provides the overarching vision, goals and strategies that guide the Civil Works organization and program. The CW Strategic Plan for FY 2011 to 2015 is effective as of September 2011 and can be found on the Corps website at: <http://www.usace.army.mil/Missions/CivilWorks.aspx>.

d. Corps Water Management System (CWMS). The Corps has been implementing the CWMS in a piecemeal manner for over 15 years. The technical capabilities exist but resources have not been allocated in past budgets for implementation at a national level. Given that the Corps is the Nation's leading water management agency, increased funding will be included in the Remaining Items portion of the FY 14 budget to fully deploy CWMS and give the Corps state of the art capabilities for this program in FY 14.

e. Transforming the Civil Works (CW) Budget Process. See SECTION 2 of the MAIN part of this EC for information and guidance regarding transforming the CW budget process.

f. Section 902 Cost Limit Policy. Section 902 of WRDA 1986, as amended, defines the maximum project cost limit and provides guidance on the procedures to use to calculate this limit. Exceeding project 902 limits continues to be an issue for USACE. A memorandum from the DCG, C+EO dated 7 March 2012, provides additional clarification regarding Section 902 cost limit policy. In addition, the Management Control Evaluation Checklist has been modified to include two checklist items regarding 902 cost limits.

7. Performance Based Budgeting.

a. The "Government Performance and Results Act of 1993" or GPRA, is the foundation for present-day program development within the Federal government. GPRA requires that government agencies develop strategic and annual performance plans for serving the Nation, and produce reports on how effective and efficient performance actually was for a given period. This law has led to the establishment of results-oriented performance planning, measurement, and reporting throughout the Federal government.

In the GPRA Mod Act, Congress calls for a performance management framework that shifts emphasis to the use of goals and measures to improve outcomes, not just the production of plans and reports. Civil Works performance measures are tied to the Civil Works Strategic Plan goals. A summary of the current Civil Works strategic goals are as follows:

- (1) Assist in providing for safe and resilient communities and infrastructure.
- (2) Help facilitate commercial navigation in an environmentally and economically sustainable fashion.
- (3) Restore degraded aquatic ecosystems and prevent future environmental losses.
- (4) Implement effective, reliable, and adaptive life-cycle performance management of infrastructure.
- (5) Build and sustain a high quality, highly dedicated workforce.

b. In 1996, as a pilot GPRA project for the OMB, the Operation and Maintenance Program successfully established results-oriented business program development procedures for six business lines - EM, EN, FRM, H, N, and RC. The program development procedures further evolved into today's procedures and served as templates for the development of two additional business lines, namely: RG and WS. The program development procedures and guidelines for these business lines are contained in Appendices B - I.

8. Budget Policy.

a. Presidential (OMB) Policy.

(1) Economic Assumptions. Economic assumptions underlying Presidential policy is contained in OMB document: Fiscal Year 2013, Analytical Perspectives, Budget of the United States Government. These assumptions, along with related factors from the Civil Service Retirement System (CSRS), the Federal Employees Retirement System (FERS) and workforce conversion data from HQUSACE Human Resources Office, are shown for PY-3 through PY+19 in TABLE 1. The assumptions and related data cover: (1) base rates for federal, civilian, permanent workers (includes pay and burden factors), (2) pay raises for these workers applicable to both changing and fixed base rates and (3) inflation for "goods and services" of federal civilian temporary and non-federal workers, and non-pay items.

(a) Pay and Burden Rates. Base rates (against which pay raises apply) reflect

assumed pre-raise pay and burden rates. Pre-raise pay rates are 1.000, by definition, for regular pay, and assumed to be 0.02 for awards. Assumed burden rates reflect assumed government contributions for worker benefits. The rates comprise two parts - one part for government contributions under the CSRS; the other, under the FERS. The first part (including contributions for retirement, health insurance, Medicare, and life insurance) is shrinking, while the second part (including contributions for regular, "Thrift Savings," and Old Age Survivors Disability Insurance (OASDI) retirement; health insurance; Medicare; and life insurance) is growing. This results from permanent force "attrition" and subsequent "turnover" through the hiring of more workers under FERS. With an annual permanent force attrition of 7 % and associated turnover initially representing a considerable share of that, the CSRS part is expected to become negligible by FY 21. Class 1 "updating factors" reflect the year-over-year change in base (resulting from change in burden), the associated year-over-year raises, and whatever raise absorption may pertain.

(b) Pay Raise Assumptions. Pay raise assumptions for federal, civilian, permanent workers are shown in OMB document: Fiscal Year 2013, Analytical Perspectives, Budget of the United States Government, Table 2-1, Economic Assumptions. Future projections are developed using rates in guidance provided directly from OMB. Assumed pay raise rates include base and locality components. (The base component is different from the base rate, discussed above, against which the base component applies.) Base components, reflecting the Employment Cost Index (ECI), apply nationally. The General Schedule base rates under 5 U.S.C. 5303(a) calls for increases in basic pay equal to the percentage increase in the Employment Cost Index, wages and salaries, private industry workers, less half a point. The ECI, wages and salaries, private industry workers, between September 2010 and September 2011, increased 1.7 percent so the General Schedule base rate increase would be 1.2 percent. The Federal Salary Council, as authorized by Public Law 101-509, the Federal Employees Pay Comparability Act of 1990 (FEPCA), makes recommendations for establishment or modification of pay localities. The law also gives the President the authority to propose alternative pay adjustments for both base and locality pay. Locality components, reflecting conditions of local markets, apply locally. Under 5 U.S.C. 5304(a)(3)(I), the percentage of comparability payments due in January 2002 and any year thereafter may not be less than the full amount of the target gap. The percentage of comparability payments previously recommended by the Federal Salary Council was an overall average locality rate of 41.77% in 2012. In 2013 the Federal Salary Council did not recommend a percentage but simply provided the average locality rate target gap of 44.16% for 2013. Public Law 111-322 (H.R.3082) entitled: Continuing Appropriations and Surface Transportation Extensions Act, 2011, included language which states: "no statutory pay adjustment which would otherwise take effect during the period beginning on January 1, 2011, and ending on December 31, 2012, shall be made." As such, for PY-3 and PY-2 the allocation to these components is 0.00 for both the national and locality component as the total pay raise rate is 0%. For PY-1 (2013) the

President's alternative pay adjustment for both base and locality pay is 0.5 percent. Prior year budget guidance gave information on the allocation of pay raise rates to base and locality components based on the number and distribution of workers eligible for locality pay. Class 1 rates in TABLE 1 are based on composite raises for all years. TABLE 1 assumes that there will be no increase in outlays because of grade and step increases as the mean federal grade and step have remained relatively constant, reflecting the fact that as some federal workers are being promoted others are leaving the federal service altogether. For this reason, grade and step increases have virtually no net effect on the annual change in the federal payroll.

(c) Inflation Rates. Inflation rates reflect assumed price increases for "goods and services" of temporary federal and nonfederal workers, and for non-pay items. Public Law 105-33, entitled: Balanced Budget Act of 1997, requires that the Gross Domestic Product (GDP) percent change, year-over-year chained price index (1996 = 100) rates be used to develop "baseline estimates" reflecting, instead of Presidential policy, continued operations under current law and current year appropriations. The baseline program based on these estimates is discussed in OMB's Circular A-11, "Preparation, Submission and Execution of the Budget". At the recommendation of OMB, these rates were used as Class 2 rates of TABLE 1. Class 2 "updating factors" reflect the year-over-year inflation and whatever inflation absorption may pertain.

(2) OMB Out-year Ceilings. OMB maintains out-year planning estimates, or ceilings, for the Investigations, Construction and Operation and Maintenance appropriation accounts in the Civil Works Program. These 5 and 10-year ceilings: (1) define the President's long-term resource requirements, (2) reflect the long-term effects of the President's policies on various programs, projects, and activities (PPAs) funded by each account and (3) serve as benchmarks for use in evaluating Congressional appropriations. These ceilings are presented, for all accounts, in the OMB MAX database.

(3) Sustainability. EO 13514, signed on 5 Oct 2009, establishes new sustainability requirements and re-emphasizes those established in EO 13423 (2007), the Energy Policy Act, 2005 (EPAAct) and the Energy Independence and Security Act, 2007 (EISA). These requirements are related to greenhouse gases (GHG), energy/fuel efficiency, renewable energy, green buildings, local and regional planning, water efficiency, pollution prevention, sustainable acquisition, electronic stewardship and data centers, and USACE sustainability innovations. Additional information for EISA and EPAAct, as well as other Sustainability requirements is available at: <http://www.fedcenter.gov/> ; <http://www1.eere.energy.gov/femp/>; and <https://eko.usace.army.mil> (AKO login required).

(a) Actions required to meet the above Federal sustainability requirements are described in the USACE Sustainability Plan (SP) and associated implementing directives, OPOD 2010-71 (25 Oct 2010) and FRAGOs 1 and 2 (26 Oct 2011) to OPOD 2010-71.

See <https://eko.usace.army.mil/usacecop/environmental/sustainability/> for further information. Funding for these actions should be included in the budget as described below. The prioritization of budget packages should support the achievement of USACE Sustainability Goals as described in the USACE Sustainability Plan and implementing directives.

(b) USACE Sustainability priorities will vary over time, but the FY 14 priorities are the same as FY12-13 -- facility energy and water efficiency, as well as petroleum efficiency in facilities, vehicles and vessels (SP Goal 1, *Scope 1&2 Greenhouse Gas (GHG) Reduction*, Goal 3 *High Performance Sustainable Design / Green Buildings*, and Goal 4, *Water Use Efficiency and Management*). MSCs should strive to invest up to 5-10% of their energy budgets in FY 14 for improvement in these areas. The most significant change relative to Sustainability budget development in past years, is the use of Energy Savings Performance Contracts (ESPCs), and Utility Energy Services Contracts (UESCs) that conform to Federal and USACE policy and guidance.

(c) FY 14 budget packages should target energy, water and petroleum efficiency in facilities, vehicles and vessels. The highest priority facilities are USACE Covered Facilities (FRAGO #2 to OPORD 2010-71), or facilities and vessels that are the largest consumers of energy or petroleum in a given Division or District. The highest priority budget packages are those that provide the largest energy/water/petroleum reduction and the shortest pay-back time (targeting simple payback of less than 10 years). The highest priority requirements also include the start-up costs of ESPCs and UESCs, as well as requirements for advanced and "smart" metering and energy/water audits that conform to Federal and USACE policy and guidance. MSCs must ensure that budget submissions for facilities and vessels that are funded by the Plant Replacement and Improvement Program (PRIP) adhere with USACE PRIP policy.

(d) To support these priorities, a supplementary data submittal is required for each sustainability budget package in FY 14 to support evaluation of the relative costs and benefits of budget packages submitted for SP Goals 1, 3, and 4. For those budget packages requesting funds for direct investment in project facilities, the supplementary data will be evaluated for cost and benefit, looking specifically for packages with simple payback (total cost / annual savings) of ten years or less, to select the most competitive budget packages. Budget packages requesting funds for the start-up costs of ESPCs or UESCs as part of a coordinated District or MSC-level ESPC/UESC initiative will also be considered.

(e) The additional Sustainability data requirements for budget packages supporting SP Goals 1, 3 and 4 are defined in the instructions for completing the FY 14 Sustainability Budget Data Spreadsheet, which is available at: <https://kme.usace.army.mil/labs/>

ERDC/DDO/CRREL/GGH/FY2010_FEMP/Shared%20Documents/Sustainability_Budget_Data_Spreadsheets.

(f) For updated Sustainability Code Definitions (EO13514 and 2011 USACE SP Goals), see the Glossary at the end of this EC.

(g) Budget packages selected using the process described above, will be funded from the FY 14 Sustainability and Energy allocation as directed by ASA(CW). The FY 14 Sustainability and Energy allocation is not to exceed \$10M. The actual allocation for Sustainability and Energy in FY 14 will be determined by the competitive selection at HQ USACE of budget packages targeting direct investment in project facilities and those funding the start-up costs of ESPCs and UESCs.

(h) USACE will report sustainability status through federal reporting systems and the OMB scorecard process similar to that used previously for the President's Management Objectives.

b. Army Budget Policy.

(1) Performance-Based Program Development. Performance-based program development assures Army that only those programs, and only those parts of those programs, which can be justified by the results produced, or expected to be produced will be included in the budget. Results may be in the form of outputs or outcomes. Performance-based program development is designed to ensure prosecution of only clearly justified programs and to allow increments to be added such that the first-added increment provides the best results or returns, the second-added increment provides the second-best results or returns, etc. The increments are added in order of priority, both within and across Business Lines, to build a total program whose size ultimately depends on available funding.

(a) Performance Measures. Performance measures are written criteria by which to gauge progress in accomplishing any particular performance objectives, goals, and missions. For the Civil Works Program, the Corps has performance measures for each business line. They are used, not only as standards by which to judge performance based on project or program results, but also to project performance contributions of investment increments for consideration in prioritizing increments to be added in program development.

(b) Performance Results. Performance results are products of operating the Programs, Projects and Activities (PPAs). They are determined through collection of data, by performance measure, describing the extent to which performance objectives, goals, or missions, were met through operating the PPA. They are used, not only to

evaluate program performance and judge program worthiness after the fact, but also, to evaluate the reasonableness of performance measures.

(2) Army Budget Guidelines for Construction Projects. See Annex II, sub-Annex II-2 for PY guidance.

(3) Army Budget Guidelines for Operation and Maintenance (O&M) Projects. See Annex III, sub-Annex III-2 for PY guidance.

(4) Workflow Continuity. The emphasis for specifically authorized studies and projects is on maintaining workflow continuity once a new start decision is made. Army guidance for cost-shared verses fully federally funded studies and projects is as follows:

(a) Cost-shared studies and projects – generally there are two main new start decision points for all Army proposed cost-shared projects: (1) initiation of the reconnaissance phase study and (2) project construction. Note that Preconstruction Engineering and Design (PED) studies **may be** budgeted before review and approval of the cost-shared Feasibility Report by the ASA(CW).

(b) 100% Federally funded studies -- for 100% Federally funded feasibility studies (other than for inland waterways), a new start review and approval will be needed for PED. A new start decision will also be needed for a 100% Federally funded feasibility study being initiated after an O&M funded appraisal if there is no intervening reconnaissance new start decision.

c. Corps Budget Guidance.

(1) Budget Funding Levels. The budget formulation process in any given PY includes the development of multiple funding scenarios (funding levels) that provide Army with a decision matrix for funding the CW Program. Budget funding levels enable HQ and Army to evaluate additional workload against incremental funding increases and are also used to help justify recommended levels above the ceiling level to Army and OMB. Budget funding levels are defined in the Glossary at the end of this EC.

(2) Capabilities and the OFA Capability Program. Capabilities used in budget development are critically important to HQUSACE, Army and OMB. Every effort must be made at the field level to maintain and update project capabilities to ensure the Oracle Financial Analyzer (OFA) Capability Program database is accurate at all times. The current definition of "Capability" is defined in the Glossary in accordance with ER 11-2-292.

(a) Capabilities used for budget defense shall be in accordance with ER 11-2-292, entitled, Capability Estimates During Defense of Civil Works Program.

(b) When stating capabilities during budget formulation, provide one or two logical increments less than the “optimal” capability with a brief explanation of what can be accomplished at each funding increment. The Recommended Program(s) to OMB, the President’s PY budget, and the associated out- year budget plans will be derived in part from the Capability Program in OFA. Future or known work should be identified in the Capability Program.

(3) Environmental Operating Principles (EOPs). These principles apply across all business lines and accounts and must be given appropriate consideration when formulating the PY budget. See the Corps website at: <http://www.usace.army.mil/Missions.aspx> for the EOPs (NOTE: the EOPs are currently under review and revision. The new EOPs will be available at the website above after April 22, 2012).

(4) Local Sponsors and the Budget Process. Districts should always collaborate with Local Sponsors on budget development in accordance with the guidance for Disclosure of Budgetary information. PY budgetary information is **ONLY** releasable to the public (to include local sponsors) after the President’s PY budget is presented to Congress. This occurs in early February of PY-2. Thus, budget information and budgetary process information shall be kept confidential until officially released by the Administration to the Congress. Such information includes (but is not limited to) funding account, funding amount, study, project, and state. Instructions on policies and procedures for disclosing budgetary information are contained in OMB guidance Circular A-11 and are issued annually by CECW-ID. Contact CECW-ID with any and all questions regarding the release of PY budgetary information.

9. Reports to Congress. Annual Mitigation Report . PL 110-114, WRDA 2007, S. 2036(b) requires that:

“Concurrent with the President's submission to Congress of the President's request for appropriations for the Civil Works Program for a fiscal year, the Secretary shall submit to the Committee on Transportation and Infrastructure of the House of Representatives and the Committee on Environment and Public Works of the Senate a report on the status of construction of projects that require mitigation under section 906 of the Water Resources Development Act of 1986 (33 U.S.C. 2283), the status of such mitigation, and the results of the consultation under subsection (d)(4)(B) of such section.”

a. Compliance with this provision requires that information in the Mitigation Database be updated each year.

b. Required submission date for updating the Mitigation Database are included in TABLE 2, Summary of Submission Requirements, of this section of the EC.

10. Contracts and Budget Development.

a. Following the guidance in EC 11-2-203 or its successor, an acquisition plan will be developed for each contract proposed for the PY budget after evaluating potential contract alternatives.

b. Use of Continuing Contracts.

(1) **No new contracts with a value of less than \$20 million will be planned as continuing contracts in the PY.** Note that this requirement was deleted from the FY 13 Budget EC but is now being re-instated.

(2) New continuing contracts should be programmed as “Primary” (formerly “Special”) or “Alternate” continuing contracts depending upon the clause used. See EC 11-2-203, Paragraph 9. New contracts using the “True” continuing contract clause and the “Alternate” (formerly “Incremental Funding”) clause should not be programmed.

(3) By 30 June 2012, any contract planned for the PY budget as a continuing contract will be submitted for approval in accordance with EC 11-2-203 or its successor.

(4) Continuing contracts may be considered where earnings span more than one fiscal year.

(5) For any contract planned for the PY budget as a continuing contract, the PY budget amount should be equal to the estimated earnings during the PY plus associated in-house costs (E&DC and S&A) and should be entered into Increment 2. Any additional funding above the estimated earnings for the PY, up to the capability amount, should be entered into Increment 3.

c. For all contracts (including base contracts and task orders) that are proposed for full funding, the total estimated amount for Engineering and Design during Construction (E&DC) and Supervision and Administration (S&A) should be programmed with the contract; otherwise program EDC and S&A incrementally (that is, only as needed to meet PY requirements).

d. See EC 11-2-203 for additional information on contracting and the use of continuing contracts and associated clauses.

11. Systems/Watersheds. In February 2007, the National Academy of Public Administration released a report entitled: Prioritizing America's Water Resources Investments. This report was chartered by the House Appropriations Energy and Water Subcommittee and it validates the Corps implementation of performance-based budgets, system/watershed perspectives, long range asset planning (reflected in the Five Year Funding Streams) and the development of Five Year Infrastructure Management Plans.

a. Systems and Basins. A systems or watershed approach ensures that investments are integrated into a whole that preserves or enhances performance and sustainability at the system level. System data for PY budget items requested in the budget (Investigations, Construction, and O&M) will include the USGS Hydrologic Unit Code (HUC) sub-region (4 digits) codes. These codes can be found at: http://water.usgs.gov/GIS/huc_name.html. A list of 52 Systems has been developed for O&M (see TABLE III-5-1).

b. Watershed Principles. Watershed studies are planning initiatives that have a multi-purpose and multi-objective scope and accommodate flexibility and collaboration in the planning process. Possible areas of investigation include flood risk management activities, ecosystem restoration, navigations, water supply and recreation.

(1) The watershed principles require team thinking about water resources development and management in the context of multiple purposes rather than single purposes, and thus, facilitates the search for comprehensive and integrated solutions; improve opportunities for public and private groups to identify and achieve common goals by unifying on-going efforts and leveraging resources; identify a combination of recommended actions (a Watershed Management Plan) to be undertaken by various partners and stakeholders in order to achieve local, tribal, regional, and national water resources management goals identified in the study and may or may not identify further budgetable Corps studies or implementation projects; and leverage resources, including cost shared collaboration, and integrates programs and activities within and among Civil Works programs, and with other Federal, tribal, state and non-governmental organizations, to improve consistency and cost effectiveness. Watershed principles may be applied to Watershed Assessments (leading to Watershed Management Plans) or feasibility studies accomplished in a watershed context (leading to Corps implementation). See Annex I (Investigations) and Business Line appendices for further guidance.

(2) Stakeholders' Perspectives for Funding Needs and Development of Five-Year Management Plans. Contributions from stakeholders and Corps leadership should be used to help frame the program performance-based budgeting concept. Stakeholders' perspectives must be considered, and the legitimate input should be incorporated into the budgetary process. Accordingly, each MSC, district, project manager or project

management team will work with appropriate local/regional partners and stakeholders to develop a Five-Year Management Plan for their respective projects.

c. Geospatial Data and Systems. Key to successful implementation of the Watershed Perspective will be the sharing of data internally and with others. To ensure that data and information technology are consistent and compatible throughout the Corps, each District shall develop an Enterprise Geospatial Information System (eGIS) initiative that fits into the Division's Enterprise GIS Program Management Plan and the Corp's Geospatial Enterprise Architecture (GeA), as outlined in Engineer Manual (EM) 1110-1-2909, entitled: Geospatial Data and Systems. As part of the eGIS initiative, each MSC shall establish, and maintain for easy access, its own geospatial database repository into which its districts shall input their project data and other data essential to multi-purpose water and related land resources management within their watersheds. Such other data might include data on water and land use regulation, water control, and environmental and emergency management. Furthermore, to the fullest extent practicable, all districts will prioritize historical program and project data and input it into the E-GIS databases. Finally, each District shall review and update project information annually through the CorpsMap web portal - <https://corpsmap.usace.army.mil> to ensure project information is accurate and current.

d. Infrastructure Management Plans. See Sub-Annex III-2 for guidance.

12. Multi-year Funding Streams for Civil Works Programs.

a. Introduction. OMB PY ceilings (estimated budget authority) reflect the intent of the President's 5- and 10-year programs from a national perspective. However, Army recommends the distribution of funding within the ceiling for Civil Works to OMB and may elect to recommend alternative funding levels as well. To this end, Army can elect alternative work mixes and associated incremental funding levels, by functional account, that best meet scheduled commitments, Army priorities, and project capabilities. Emphasis or de-emphasis of programs, projects, and activities should always provide for the most efficient and productive use of funds.

b. General. Multi-year funding streams identify the long-term resource requirements for the Civil Works Program. Ten-year databases have been established in OFA to allow MSCs to input out-year funding data. Specific data and submission requirements are described below. See the business line Appendices in this EC for additional information.

(1) Five-Year Funding Stream. The five-year funding stream (PY through PY+4), is a subset of the 10-year funding stream described below and is the basis for the Five-Year Development Plan (FYDP). The FYDP is a stand-alone document prepared by HQUSACE which provides a five-year funding stream for each Corps business line.

These funding streams must contribute to achievement of the strategic goals and objectives contained in the Civil Works Strategic Plan. The FYDP is submitted annually to the Office of Management and Budget (OMB) and the Congress along with the PY budget submission.

(2) Ten-Year Funding Stream. The purpose of the Civil Works Ten-Year Development Plan is to present the funding required for the Civil Works program for analysis over a 10- year period. The 10-year period (PY through PY+9) approximates the implementation life of projects from start to finish and establishes long-term resource requirements. The focus is to undertake projects and activities that provide the highest net economic and environmental returns on the Nation's investment as well as reducing risks to life. As in the FYDP, these funding streams must contribute to achievement of the strategic goals and objectives contained in the Civil Works Strategic Plan. MSCs shall provide the data required by the 10-year funding stream in OFA as required by paragraph 8.d. below.

(3) Twenty-Year Funding Stream. **There is no requirement for input into the 20-year funding stream in the FY 14 budget.**

c. Submission Requirements. MSCs shall complete data input to multi-year funding streams in accordance with TABLE 2 of this EC, entitled: Summary of Submission Requirements. In addition to the initial submission, MSCs shall update the 10-year program following OMB Passback (normally in the November-December PY-2 timeframe) to support the President's final submission to Congress in February PY-1. MSCs must incorporate all post-Passback adjustments as well as the PY-1 appropriations if passed by Congress by February PY-1.

d. Data Requirements. The 10-year databases have been modified to require only CAPABILITY funding for PEDs, construction projects and O&M projects that require justification to support funding (e.g. Major Maintenance). Only FEDERAL dollars (including IWTF dollars) should be shown. DO NOT include non-Federal dollars (such as required cash contributions) in the capability funding data. There is no requirement for including O&M projects in the 10-year databases except for those O&M projects that require justification to support funding (e.g. Major Maintenance).

13. Cost Estimating for Civil Works Studies/Projects.

a. Economic Assumptions. The Administration's economic assumptions address inflation and adjustments through PY-1. TABLE 1 provides cost estimate updating rates based on these assumptions, extrapolated through PY+19. These rates may be extended beyond PY+19 using the procedures described in Footnote 16 of TABLE 1. The rates are used, as explained below, to update all study and project cost estimates.

b. Updating. As shown in TABLE 1, all costs of Corps work are grouped into two "classes" - Class 1 and Class 2. Class 1 includes only costs of Corps civilian permanent workers. Class 2 includes all other costs, including costs of Corps civilian temporary workers. Each class has its own set of rates for cost estimate updating. Nevertheless, each set is used in the same way - through execution of the "algorithm" described in the table. The two cost classes and their rates are discussed below.

(1) Corps Civilian Permanent Worker Cost. The Class 1 rates in TABLE 1 are applicable to the PY-1 pay raise base. They derive from "updating factors" incorporating effects of then-year pay raises and a changing pay raise base. The pay raises reflect standard nationwide pay raises and locality pay increments. The breakdown between the two is based on local pay gaps and must be determined each year. These rates should be used to update Corps civilian permanent worker cost estimates for all programmed work of all studies, projects, and activities.

(2) Corps Civilian Temporary and Non-Corps Worker and Non-Pay Cost. The Class 2 rates of TABLE 1 are applicable to the PY-1 base of all costs other than those for Corps civilian permanent workers, ranging from costs of Corps civilian temporary workers, and consultants and Architect Engineers used in the various preconstruction planning and construction stages of work, to real estate costs. They derive from "updating factors" reflecting standard nationwide inflation. Use these rates to update Corps civilian temporary and non-Corps worker and non-pay cost estimates for all programmed work of all studies, projects, and activities.

c. Micro-computer Assisted Cost Estimating System (M-CACES). A complete and reliable M-CACES baseline cost estimate and realistic workflow and funding schedule are essential in preparing out-year programs. Projections of work and funding requirements will be consistent with the President's PY-1 budget, as modified by any Congressional action. The funding schedules should be reviewed and adjusted continuously to reflect the sponsor's financial capability and project progress.

14. Project Economics.

a. Economic Updates. Economic updates shall be in accordance with ER 1105-2-100, ER 1110-2-1302 and Civil Works Policy Memorandum (CWPM) #12-001 entitled: "Methodology for Updating Benefit-to-Cost Ratios (BCR) for Budget Development". See <http://planning.usace.army.mil/toolbox/library/MemosandLetters/CWPM12-001.pdf> for CWPM #12-001.

b. Benefit / Cost Ratios (BCRs).

(1) The purpose of TABLE 1 is to ensure the currency of economic updates and BCRs for those construction and PED projects included in the PY budget.

(2) Updated BCRs of new start and continuing PED or construction projects proposed for the PY budget are required as follows:

(a) New PEDs or Construction Projects. For new PEDs, construction projects or construction project elements proposed in a MSC budget submission, the approval date of the latest economic analysis must not precede the date of the MSC budget submission date by more than 3 years. For example, for a new construction project for the FY 14 budget (initial submission due to HQ by June of 2012), the approval date of the document containing the most recent economic analysis can be no earlier than 1 June 2009.

(b) Continuing PEDs or Construction Projects. For continuing PEDs or construction projects proposed in a MSC budget submission, the date of approval of the latest economic analysis must not precede the MSC program submission date by more than 5 years. For example, for any continuing construction project recommended for the FY 14 budget (initial submission due to HQ by June of 2012), the economic analysis can be no earlier than 1 June 2007.

(c) Exception. If a project is scheduled for completion in the PY with no major changes anticipated in the project's costs or benefits between the budget submission date and the project completion date, an exception to updating the BCR can be requested from CECW-ID. If the project completion date moves beyond 30 September of the PY subsequent to approval of the exception, an economic update of the BCR will be required before the project is included in any future budget request.

(d) Verification of BCR Updates. District Commanders are required to provide CECW-ID a signed "Verification of Compliance with ER 1105-2-100 for BCR Updates" as shown in ILLUSTRATION 5A with their PY budget submission. As part of their Quality Assurance Program, MSCs are required to ensure that this illustration is signed by all District Commanders and submitted to HQ. See TABLE 2 of the MAIN part of the EC for submission dates.

(e) Added BCR Input Required in OFA. OFA has been modified for the FY 14 budget to include nine (9) additional columns in the NAV and FRM business lines requiring BCR type data input. See OFA column definitions in the NAV and FRM appendices in this EC for additional input instructions.

(f) Discount Rates.

- A discount rate of 4% will be used to determine the "current" economics of any project.
 - For projects funded for construction, the "applicable" rate is the one in effect when construction funds were first appropriated.
 - For projects never funded for construction, the applicable rate is the "current" rate, unless the project qualifies for the 3 1/4% rate under the "grandfather" clause in Section 80 of the Water Resource Development Act of 1974, PL 93-251. Even if "grandfathered" for budgetary purposes the actual current rate should be also used and results shown.
 - In addition, costs and benefits, and remaining costs and benefits must be computed and displayed at a 7% discount rate for consistent evaluation in accordance with Executive Order 12893, "Principles for Federal Infrastructure Investment". This E.O. requires that benefits, costs, and benefit-cost ratios for new infrastructure investments of all federal agencies be evaluated at a discount rate of 7% to facilitate comparison and decision making. The total benefit/cost ratios (BCR) and remaining benefit / remaining cost ratios (RBRCs) for all continuing and new construction projects, each based on a 7% discount rate, will be input into the OFA database. RBRC's are required when updating Justification Sheets. Specifics on computing RBRCs are included in Annex II, Sub-Annex II-4.
- c. Approval of Post-authorization Documents. MSCs have approval authority for post-authorization documents that are certified as being in accordance with law and policy for projects not requiring a Washington-level decision or additional congressional authorization. Decision documents for projects not in accordance with policy or those requiring action by the Chief of Engineers or ASA(CW), or requiring additional congressional authorization, must be submitted to HQUSACE.

15. Budget Data Submissions.

a. Role of MSCs. The MSC's role with regard to data submission is quality assurance, i.e., to verify adherence to guidance in this document. Required MSC submissions, recipients, means of data input and due dates are discussed in the Appendices and summarized in TABLE 2 in the MAIN part of this EC. **Submission dates are set by HQ to control the budget development workload and to enable CECW-I to brief the ASA(CW) on a pre-determined schedule. Therefore it is ESSENTIAL that submission dates are met.**

b. Input Instructions. Input instructions are provided by various means to include, but not limited to, this EC, User's Manuals, system websites, or e-mail messages.

c. Databases. Five automated information systems are available for data input. These include P2 (OFA), the Information Technology Investment Portfolio System (ITIPS), the Recreation Budget Evaluation System (Rec-BEST), the Environmental-Stewardship Budget Evaluation System (E-S BEST) and the Corps of Engineers Bridge Information System (CEBIS).

(1) P2 Database.

(a) General. In addition to the guidance below, detailed documentation and instructions concerning use of P2 for submission of the PY program can be found in a document named "PBS Training Workbook". This document can be obtained from a link on the P2 OFA-CW start-up screen. Note that the dates shown in the "Data Sources and Process Flow" section of the PBS Training Workbook document are notional dates. Refer to TABLE 2 in the MAIN part of this EC for a summary of official submission dates. Additional instructions concerning use of all P2 tools are available on the PMBP Portal at <https://pmbp.usace.army.mil>. **NOTE:** The latest date that the OFA database will open for budget data input is late April 2012. Every effort will be made to open the OFA database as soon as possible. The specific date will be provided by CECW-IN as soon as the date is established.

(b) General Provisions. P2 will be used by all MSC/Districts for I, C, O&M, MR&T, FCCE, and FUSRAP program submissions. "Remaining Items" in these accounts will be handled separately by HQUSACE. Refer to the "Data Sources and Process Flow" section of the PBS Training Workbook document for a detailed discussion of the process flow. In summary, the concept is as follows: MSC/Districts **may, but are not required**, to use P2 Primavera Project Manager (PM) to schedule their projects and identify unconstrained (capability level) resource requirements. Every night during the budget submission timeframe, selected data fields in PM will be automatically loaded into the PBS module of OFA at a defined level of detail. The MSC/District will then use OFA to enter performance indicators, budget request amounts, and District and MSC rankings for all budget items in each business line and appropriation account. Upon completion of the submission by MSC/Districts, the P2 data in OFA will be utilized by each HQUSACE business line manager for development of the nationwide program. HQUSACE business line managers may work directly in OFA or may use Excel extracts of OFA data. Excel extracts revised by HQUSACE business line managers will be periodically uploaded back into OFA by HQUSACE.

(c) P2 Primavera Project Manager (PM). MSC/Districts have the option, **but are not required**, to schedule and resource their projects in PM for the PY. The current unconstrained (capability-level) project schedule, activities, and resource requirements identified in PM for the PY can provide a starting point upon which the budget submission is built in OFA. Alternatively, the budget submission can be built directly in OFA, using

last year's OFA data as the starting point. At a minimum, in order for data to be entered in OFA, a P2 project must exist in PM with a Program Code assigned. For instructions concerning PM data entry, refer to the PBS Training Workbook document sections entitled "Data Quality Considerations/User Action Checklist" and "PBS Business Process Procedures (Update PY Schedules in Project Management)".

(d) Recreation and Environmental Stewardship. Budget packages and performance measure data for Recreation and the Environmental Stewardship part of the EN program will be updated and submitted through use of Rec-BEST and E-S BEST, respectively. The performance measure information must be updated in the BEST programs by the date shown in TABLE 2 in the MAIN part of this EC. This performance data will be extracted from Rec-BEST and E-S BEST and then merged into OFA. When entering budget information into PM and/or OFA, make sure the corresponding BEST ID's are entered for all resourced activities to ensure that the proper performance measures can be properly matched. In OFA the Budget Item ID data field will contain the BEST ID. For most projects, the preliminary budget information and the matching BEST_ID's can be carried over from last year's data entry in PM and/or OFA, or can be taken from the existing Rec-BEST and E-S BEST database. The information needed for P2 data entry is available on the P2 summary page in the BEST programs. Extracts of Rec-BEST and E-S BEST will be loaded into OFA on a nightly basis once the projects have submitted data input in Rec-BEST and E-S BEST and the budget items have been created in P2-OFA, to allow Districts and MSCs to review and evaluate their budget comprehensively, across business lines.

(e) Mitigation Costs. In order to facilitate tracking the cost of mitigation and its execution, funding for mitigation activities (phase code MT) will be included in separate line items or work packages. Mitigation does not include avoidance and minimization activities. It does not include responses to Biological Opinions which are not included in a decision document or NEPA document. ENR projects are not mitigation. The mitigation line items will usually be ranked sequentially with a related Construction, or Operations or Maintenance item requiring the mitigation. Mitigation is to occur prior to or concurrently with the construction requiring mitigation. In some cases there may be valid reasons for implementing some aspects of the mitigation near the completion of construction or if mitigation efforts have lagged it may require a higher priority than the next construction item for the project. This may result in mitigation being in different increments in the construction budget or there may not be a construction item other than the mitigation item included in the PY request. The reason for non-sequential ranking or a stand-alone mitigation item should be entered in the "Budget Item Justification" column.

(f) Business Line. P2 provides a project level code to identify the project's primary business line. This code may be over-ridden in PM at the activity level for specific activities which differ from the project's overall primary business line. Several Business

Line choices available in P2's list of values are not applicable for this budget submission, including "OTH" - Other, "SOTH" - Support for Others, and "RE" - Real Estate. The business line choice "ENV" - Environment should not be used. Instead, use "ENV-Ecosystem", "ENV-Steward" or "ENV-FUSRAP". The "JOINT" business line should not be used for a project's primary business line classification, but may be used as the business line over-ride activity code on applicable activities in PM.

(g) Increments. An activity code named "CW Funding Increment" may be used in PM to categorize a discrete amount of work identified by an activity or a set of activities. The valid values for this data element are defined in the Glossary at the end of this EC. If the activity code is blank, the corresponding data will be placed in a CW Funding Increment called "Unassigned" in OFA. The CW Funding Increment can also be entered directly in OFA. Budget items with an "Unassigned" increment will NOT be considered for funding in the PY.

(h) Phase Activity Code. An activity code named "CW Budget Phase Activity" may be used in PM to categorize each resourced activity. The valid values for this data element are identified in TABLE 3 of the EC under the heading "Phase Activity Code". If the activity code is blank, the corresponding data will be placed in a CW Phase Activity called "Unassigned" in OFA. The CW Phase Activity can also be directly entered in OFA. Budget items with an "Unassigned" CW Phase Activity will NOT be considered for PY funding. O&M multipurpose hydropower projects (CW Type of Funds 96 3123 300) which are assigned a Phase Activity code of "OJ" (Operation Joint Activities) or "MJ" (Maintenance Joint Activities) will appear in OFA under the Hydropower business line.

(i) CW Type of Funds. Every resourced activity in PM needs to have a valid Type of Funds (Appropriation Dept / Appropriation Symbol / Category-Class-Subclass (CCS)) code assigned at the Resource level for interfacing to CEFMS and proper OFA functionality and reporting. Do not assign a CW Type of Funds value which only identifies the Appropriation Dept and Symbol -- choose values which include the CCS as well.

(j) OFA Performance Measure Data Entry Forms. The PBS module of OFA provides Performance Measure data entry forms which allow for submission of budget data. There is a separate data entry form for each business line. The data requirements for each business line are detailed in the individual business line Appendices. For each budget item (row) in OFA, the PY Federal Corps (and PY Inland Waterway Trust Fund, if applicable) funding request amount must be entered, along with performance indicators applicable to the business line and the MSC rank for the budget item. **MSC rankings are required across business lines.** Each budget item should receive a unique ranking, beginning with rank '1', with increments of 1. For detailed documentation and instructions on the use of these forms, refer to the "Update PY Budget and Enter Performance Measures in OFA" and "OFA Nightly Update Process" sections in the PBS Training

Workbook document. Note that budget items brought into OFA from PM may be revised as needed, including deletion and insertion of budget items. These revisions may be accomplished directly within OFA or by pasting from Excel into the OFA data entry forms. Data entered in OFA will not be overwritten by the PM-to-OFA nightly load process.

(k) Level of Detail and Budget-Item-ID. Each record (or row) of budget and performance measure data in the OFA data entry forms will be identified in detail by seven key fields - Business Line, EROC, Type of Funds, P2 Project, Funding Increment, Phase Activity, and Budget Item ID. The Budget Item ID field is used to break-out budget items to an appropriate level of detail. Refer to the business line Appendices to determine at what level of detail to enter the individual budget items for each project and study. An activity code named "CW Budget Aggregation Override" is available in PM which can be used to force an activity in PM to load into OFA as an individual item without aggregation by setting the activity code to "Yes". Setting this activity code to "Yes" is optional, and only needs to be done to override the default aggregation rules detailed below. By default, the PM-to-OFA nightly load process derives Budget Item ID's based on the following business rules:

- EM, EN Restoration, FRM, Navigation, FUSRAP - If the Resource Type is CONSTSVCS (Construction Contract), or if the "CW Budget Aggregation Override" activity code is "Yes", then the Budget Item ID will represent the Activity Number. In all other cases, the Budget Item ID will be "NCS" (Non-Construction Services).

- EN Stewardship and Recreation - The Budget Item ID will represent the Best ID assigned at the resourced activity level in PM. If there is not a BEST ID assigned, the Budget Item ID will be "UNK" (Unknown).

- Hydropower (Increments 1, 2, and 2.5) – If the Resource Type is CONSTSVCS, or if the "CW Budget Aggregation Override" activity code is "Yes", the Budget Item ID will represent the Activity Number. Otherwise, the Budget Item ID will represent the Work Category Code assigned at the resourced activity level in PM. If there is not a Work Category Code assigned, the Budget Item ID will be "NCS".

- Hydropower (Increment 5) – If the "CW Budget Aggregation Override" activity code is "Yes", the Budget Item ID will represent the Activity Number. Otherwise, the Budget Item ID will represent the Work Category Code assigned at the resourced activity level in PM. If there is not a Work Category Code assigned, the Budget Item ID will be "NCS".

- Hydropower (Increments other than 1, 2, 2.5, and 5) and Water Supply – The Budget Item ID will represent the Activity Number. Thus, each activity is brought into OFA individually.

(l) The sum of all PY requested amounts in OFA for all budget items within a project should represent the project's capability.

(m) Joint Activities. Refer to Sub -Annex III-2, for guidance on joint activities.

(n) Program Codes. The Program Code identifies the AMSCO/CWIS/PWI associated with a P2 project. A Program Code must be assigned to every CW P2 project for which funds are requested. The Program Code is a project level code which is entered in Primavera. Refer to Appendix G in the most recent Budget Execution EC for further guidance concerning Program Codes.

(o) Multi-year Funding Streams. OFA also provides a data entry form named "PBS Multi-Year Funding Stream Data Entry Form" which is used to enter funding streams by FY, Project, Business Line, Type of Funds, Work/Financial Category (Federal, Inland Waterway Trust Fund), Phase Activity, and Funding Level. Refer to the "Prepare Multi-Year Funding Streams in OFA" section of the PBS Training Workbook document for detailed instructions on using the data entry form. Also refer to paragraph 12 above for further information on multi-year funding stream data requirements.

(2) ITIPS. Instructions for input to the ITIPS database were provided by CECI-TR in the latest ITIPS User's Manual, accessible at: <https://kme.usace.army.mil/ci/CIOrganization/IMITPortfolioProgram/Pages/ITIPS.aspx>. These instructions cover input of automation requirements, discussed in Annex VI. This database remains open; but input is required by the date shown under "Automation Program" in TABLE 2 of the MAIN part of this EC.

(3) Rec-BEST. A web-based tool has been developed for field use in calculating Recreation performance measures for O&M activities. **Rec-BEST must be used to develop performance measures for Recreation O&M and MR&T budget packages for the PY.** Rec-BEST may be accessed at: <http://corpslakes.usace.army.mil/employees/recbest/recbest.cfm> along with directions for its use. See Appendix G in this EC for further information concerning Rec-BEST.

(4) E-S BEST. A web-based tool has been developed for field use in calculating Environmental Stewardship performance measures for O&M activities. **E-S BEST must be used to rank PY Environmental Stewardship O&M and MR&T budget packages.** E-S BEST maybe accessed at: <http://corpslakes.usace.army.mil/employees/esbest/esbest.cfm>. See Appendix C, sub-Appendix C-3 for further information concerning E-S BEST.

(5) CEBIS. A web-based tool has been modified for use in documenting O&M activities for bridges regardless of business line. **CEBIS must be used to document PY**

O&M and MR&T budget packages. CEBIS may be accessed at: http://caroli.usace.army.mil:7780/CEBIS/cebis_2pub.pub_utl.main. See ER 1110-2-111 for further information concerning CEBIS. Where other tools within a business line have been developed that cover bridges (e.g. Inland Navigation OCA), CEBIS will be used as the database of record for operational condition and risk assessment information for business line specific data fields and supersede any business line process.

16. Justification Materials and Congressional Books.

a. Document Restrictions and Marking. All submissions required by this EC are NOT TO BE RELEASED outside the Department of the Army until after the PY President's Budget is released to the public. See ER 11-2-240, "Civil Works Activities - Construction & Design", for instructions regarding the marking of documents for restricted distribution.

b. Justification Sheets (J-sheets).

(1) Schedule. See TABLE 2 in the MAIN part of this EC for J-sheet submission requirements.

(2) J-sheet Guidelines. These guidelines are to be used in conjunction with the J-sheet templates provided in this document for development of J-sheets by the Districts in Microsoft Word Format and are consistent with J-sheet requirements provided in ER 11-2-240, paragraph 11. DO NOT deviate from the formatting outlined below without first contacting CECW-ID for guidance.

(a) Formatting for Landscape (Investigations and Construction funded projects) – Use 10-point regular Arial font, automatic line height, line spacing of 1, and margins of 1 inch top and bottom, 0.5 inches both sides. All narrative text is to be left justified on the page with no tabular columns. If there is a need for columns, use the table option and center justify on the page with formatting as described below:

- Do not number pages
- Do not date pages
- Footer:

Use only the Microsoft Word Standard Blank (Three Columns) footer option.

Arial 10 Font, located at 0.8 inches from the bottom.

Left Column should be left justified with "Division: XXX XXX"

Center Column should be center justified with "District: XXXX"

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Right Column should be right justified with “Project Name, State (two letter postal abbreviation only- do not spell out)” (Note: Use the “Wrap Text” formatting feature within the footer cell if all text does not fit on a single line.)

- Tables:

Center justified on page

Column headings (if applicable) are to be center justified within the column

Alpha data cells should be left justified within the column horizontally, center justified vertically within the cell.

Financial data is to be formatted as currency with the comma separator, \$ symbol and no decimals. Data is to be right justified horizontally and bottom justified vertically within the cell.

Benefit values are to be formatted as currency with the comma separator, no symbol and no decimals. Data is to be right justified horizontally and bottom justified vertically within the cell.

A separate left justified small column within the table should be used for the footnote designator adjacent to the numeric data cells (i.e. 1).

If footnote designator is needed within the text column the designator should be the last item within the text.

The actual footnote(s) should be incorporated as the last lines of the table with the horizontal cells merged into a single cell to allow text wrapping.

Only one footnote per horizontal line of table.

There should be no embedded tables within a table.

(b) Formatting for Portrait (Operation and Maintenance) - Use 10-point regular Arial font, automatic line height, line spacing of 1, and margins of 1 inch top and bottom and 1 inch on both sides. All narrative text is to be left justified on the page with no tabular columns. If there is a need for columns use the table option and center justify on the page with formatting as described below.

- Do not number pages.
- Do not date pages

- Footer:

Use only the Microsoft Word Standard Blank (Three Columns) footer option.

Arial 10 Font, located at 0.8 inches from the bottom.

Left Column should be left justified with “Division: XXX XXX”

Center Column should be center justified with “District: XXXX”

Right Column should be right justified with “Project Name,State (two letter postal abbreviation only- do not spell out)”. (Note: Use the “Wrap Text” formatting feature within the footer cell if all text does not fit on a single line.)

(c) Formatting for Maps and Illustrations – follow the guidance in ER 11-2-240, Appendix C for the map content with the above for guidance for margins and font size superseding the ER for both the landscape and portrait formats.

(d) General notes.

- Normal rules of grammar apply to all J-sheets.
- Completion Dates. Use “TBD” (to be determined) on all J-sheets requiring completion dates outside the budget year EXCEPT in the case of beach nourishment projects (where the completion date should be known).
- All negative amounts on J-sheets must be in parentheses “()”.
- In cases where both the Feasibility and PED phases are being budgeted in the same PY, separate J-sheets are required for each phase unless an exception (in writing) is obtained from CECW-ID.
- Submit draft / final J-sheets via email, thru your MSC to your RIT as appropriate for review. Coordinate emailing logistics with your RIT beforehand. See TABLE 2 in the MAIN part of this for submission dates.
- J-sheets for continuing studies / projects that were included in the PY-1 President’s budget only are required to be submitted in the PY.
- “New start” J-sheets for studies, PEDs and projects that were NOT in PY-1 budget but are PROPOSED for inclusion in the Army’s recommendations to OMB must also be submitted. See TABLE 2 in the MAIN part of this EC for submission dates.

- CECW-ID may make a special request for additional J-sheets that may be required.

(3) Revised Submission. Between the times of the initial and Congressional submissions, revised submissions may be required for various reasons, including changes in funding for PY-1 affected by appropriations. Submit these as specifically requested.

(4) For O&M J-sheets, show funding for "operation" and "maintenance" work separately. Copy PY funding for these parts from guidance to be provided later, ensuring that the total of amounts copied matches your division's total. Update individual project amounts to reflect your latest projection of PY-1 obligations. Round all funding amounts to the nearest thousand dollars.

(5) Identify States for each of the following items: Scheduling Reservoir Operations, Inspection of Completed Works, Project Condition Surveys, and Surveillance of Northern Boundary Waters. Refer to Annex III.

(6) Develop project completion schedules for Construction projects consistent with the President's budget funding amounts. Do not show future advanced appropriations in the summarized financial data on your justification sheets. Prepare the summarized financial data in accordance with the examples in ILLUSTRATION II-4.2 of Annex II.

c. Congressional Books. The ultimate use for justification sheets is the Congressional books prepared and submitted to appropriate Congressional subcommittees. Each book contains justification materials for each MSC.

(1) Each MSC is responsible for developing its own data using whatever software it chooses, such as computer-aided design (CAD), and Microsoft Word and Excel software. However, ultimately, each MSC must convert its Congressional book of justification materials to an Adobe Acrobat file for efficient electronic transmission and publication. In order to ensure that each book will "present" in the Adobe Acrobat file as it does in the development software file, print preview the individual Word files for each J-sheet using the Adobe Acrobat printer in the development software before finalizing the product. For example, to ensure that a Word document transfers exactly into an Adobe Acrobat file, select "Print," then select "Adobe PDF " as the printer in Word - then save the individual file as a PDF. Review on-screen or print the PDF file on a local printer for review. If changes are required return to the Word document and make corrections. Repeat the process to create and print the final PDF version of individual J-sheets.

(2) The MSC prepares a Word file of the table of contents which lists the study and project *sheets being submitted in the following order: by Account, then by State within*

accounts, then alphabetically by project within each state, in portrait format with 1” margins on all sides in Arial 10 font.

(3) The MSC also prepares a Word file that contains the following pages in landscape format with 1” top and bottom margins and 0.5” side margins and centered on the page in Arial 36 font.

(a) MSC title page.

(b) Justification of Estimate title page.

(c) Business Line title page(s) for which a J-sheet is being submitted in the Investigations and the Construction appropriations.

(d) Appropriation title pages as required by each business line submitted.

(4) The MSC also prepares a Word file that contains the Operation and Maintenance title page in portrait format centered on the page with 1 inch margins on all sides in Arial 36 font.

(5) Follow the process described in paragraph 16.b.(3) (a) above to create the individual PDF files described in subsequent paragraphs (b), (c), and (d). Combine these files into a single PDF file in the proper order and name it the MSC master file.

(a) Insert the individual final project J-sheets in the appropriate location within the master PDF file.

(b) Review the master file to ensure all J-sheets (especially footers as submitted by the districts) are visible in the master file.

(c) Once the master PDF is determined to be final, insert a PDF footer by choosing “Document”, “Header & Footer”, “Add”, then choose “Add New” in the popup window.

(d) Customize the PDF footer ensuring to choose:

- Arial 10 font.
- Margins -- Top and Bottom, 0.5 inches; Left and Right, 1.0 inch.
- Center Footer Text should be the date of Army's press conference (to be provided later).

- Right footer text should be customized with the division, space, dash and then follow by selecting the “Insert Page Number” button on the drop down menu (i.e. SAD – page #).

- Once the above steps are complete, choose “OK” and the footer will be inserted on the MSC master file. Review the document to confirm that all District J-sheet footers are intact and the PDF footer is correct. If all footers look correct, save the MSC master PDF file and print for final review at the MSC prior to submitting to HQUSACE – RIT.

- If incorrect, check the J-Sheet Word files to ensure the footers are correctly positioned and repeat PDF creation processes until corrections are successfully completed .

17. Balance-to-Complete Report. Districts will utilize the OFA “PBS Multi-Year Funding Stream” data entry form to ensure that the funding required beyond the PY to complete all active, inactive, and deferred PED and construction projects is accurately entered by the date shown under TABLE 2 in the MAIN part of this EC. Records for all PED and construction projects must include total estimated federal costs. Give special attention to active status PED and construction projects, as they are the subject of periodic Congressional questions on project balances-to-complete.

18. Certification and Verification of Compliance Requirements.

a. Required by Law or Executive Order. At least two, and possibly four, certifications are required with the PY budget submission to attest that MSC programs comply with applicable laws and Executive Orders. The two certifications always required by HQ (CECW-I) include one by district commanders regarding compliance with an Executive Order on data sharing, and one by the MSC directors of programs management regarding compliance with use of management controls. The remaining two Certifications of Compliance that may be required are both for signature by district commanders - both regarding compliance with coastal barrier laws. Each Certification is discussed below.

(1) Executive Order on Geospatial Data. Reference ER 1110-1-8156, "Policies, Guidance, and Requirements for Geospatial Data and Systems," and EM 1110-1-2909, "Geospatial Data and Systems," assist USACE in protecting its investment in geospatial data and systems and in complying with Executive Order 12906, "Coordinating Geographic Data Acquisition and Access - The National Spatial Data Infrastructure." USACE collects a variety of geospatial data to produce products such as river and harbor maps, charts, and drawings; real estate maps; environmental and economic studies; and engineering studies and drawings. Paragraph 7.g.(4) of the ER explains that, beginning with the FY 97 Civil Works program cycle, each district commander will submit a certification, modeled after ILLUSTRATION 1, certifying that his command has

documented new geospatial data that it has created and made this documentation (metadata) available via the National Geospatial Data Clearinghouse on the Internet. The certification is due by the date shown in TABLE 2 in the MAIN part of this EC.

(2) Coastal Barrier Laws. OMB's Circular A-11, Section 12.5(s) states that estimates must not include any new federal expenditures or financial assistance prohibited by the "Coastal Barrier Resources Act" (CBRA), PL 97-348. In addition, the "Coastal Barrier Improvement Act of 1990," PL 101-591, amending CBRA, requires that the Corps certify annually to Congress and the Secretary of Interior that it was in compliance with the provisions of CBRA, as amended, during the previous fiscal year. Therefore, each District Commander whose district includes areas covered by the Coastal Barrier Resources System will submit two certifications - one modeled after each ILLUSTRATION 2A and 2B certifying, respectively, that his program request is in compliance with these laws and that no funds were obligated in the past fiscal year (PY-2) for purposes prohibited by them. Note that PL 101-591 added new units to the Coastal Barrier Resources System. The certifications are due by dates shown in TABLE 2 in the MAIN part of this EC.

(3) Management Control Law. Federal agencies are required by law to establish "management controls" for the activities they manage, and to provide assessments of their effectiveness to the President and Congress, annually. To this end, functional proponents identify requirements for compliance with law, including safeguarding assets, ensuring adequate records, and promoting efficiency and effectiveness of program accomplishment, and reflect them in checklists. Army's management control effort, implemented by AR 11-2, "Manager's Internal Control Program" specifically includes the Civil Works Program. The Management Control Evaluation Checklist for Civil Works Program Development is provided in ILLUSTRATION 3 of this section of the EC. A sample of a completed checklist is available for illustration purposes only in ILLUSTRATION 6 of this section of the EC. This is for use by programs management organizations in MSCs and districts, as explained below:

(a) Use the checklist during development of your program submission. District commands will use it first; then MSCs, when reviewing and modifying district submissions.

(b) A "no" response to a checklist question suggests a potential management weakness. However, if the potential management weakness is the result of a special case or specific exception, then there may be no management weakness. Those signing the Certification are the judge. If it is determined that a weakness exists, the weakness must be corrected as quickly as resources and essential mission priorities allow. No upward reporting is required.

(c) If a management weakness requires the attention or awareness of the next higher level of management, it is either a “notable weakness” or “material weakness” - a material weakness being more serious of the two. This is a judgment call on the relative seriousness of the problem. It is made at each progressive echelon, based on each manager's professional judgment. Weaknesses discovered by districts are reported to the MSCs, which determine whether to report them to CECW-ID. The reports must specify corrective actions taken or planned. The highest echelon receiving the report will evaluate the corrective actions, provide assistance, if needed, and track progress. Consult AR 11-2 to determine whether a weakness is “notable” or “material.” In general terms, if there has been no potential or actual loss of resources, adverse publicity, diminished credibility or violation of statutory or regulatory requirements, this reportable weakness would be considered a “notable” weakness for the purpose of the management control program for the Civil Works Program.

(d) Do not send program management checklists to HQUSACE unless there is a “no” response to a checklist question or there is additional guidance requiring submission of information. Each MSC CW or CW Integration Division Chief shall submit a signed Certification modeled after ILLUSTRATION 4, certifying that a program management checklist was used by the MSC districts, and as applicable, the MSC. The certification must be submitted in accordance with TABLE 2 in the MAIN part of this EC.

b. Required by Engineer Inspector General Report.

(1) Reference the final Engineer Inspector General (EIG) Benefit-Cost-Ratio (BCR) Inspection Report recommendations dated 2 August 2011. This report cites the need to update the Civil Works budget EC and appropriate Planning guidance to clarify:

- (a) how to compute the BCRs for projects currently under construction,
- (b) how often the BCRs must be updated,
- (c) the appropriate “triggers” for BCR updates by business line,
- (d) the certification process for updates and
- (e) the BCR update approval process.

(2) In accordance with implementing guidance contained in the EIG report cited above, a District Commander’s BCR Verification statement has been added to this EC as ILLUSTRATION 5A. District Commanders are required to submit a signed copy of this statement to CECW-I as part of the PY budget submission. Date of submission is shown in TABLE 2 in the MAIN part of this EC.

19. Budget Development Coordination. The CECW-I staff will work closely with MSC CWID chiefs throughout the program development process to assure that the Civil Works recommended program, as well as alternative programs, are thoroughly coordinated. Coordination will continue after receipt of OMB's passback and during development of Army's proposed appeal. The out-year program will be revised, as necessary, to reflect resolution of the passback appeal and final President's Program.

20. Deviations, Errors and Improvements to EC 11-2-202.

a. Any and all deviations from the guidance in this budget EC in the preparation or submission of the PY budget, whether intentional or not, must be brought to the attention of the Chief, CECW-ID at the earliest possible date. All MSC budget submissions are expected to be in accordance with the guidance and the intent of the guidance provided herein.

b. Users of this EC are strongly encouraged to bring all errors, omissions, and inconsistencies found in this document to the attention of CECW-ID at the earliest possible date. Recommended or suggested improvements to this EC are also strongly encouraged. Please respond by e-mail to CECW-ID.

FOR THE COMMANDER:

Appendices (See Table of Contents)
Annexes (See Table of Contents)



STEVEN L. STOCKTON, P.E.
Director of Civil Works

TABLE 1

Cost Estimate Update Rates



Table 1 - Cost
Estimate Update Rate

TABLE 2

Summary of Submission Requirements



Table 2 - Summary of
Submission Requirem

TABLE 3

Codes



Table 3 - Phase
Codes



Table 3 - CCS Codes

ILLUSTRATION 1

DATE: _____

Certification of Compliance with Section 3(D) Of Executive Order 12906
and Paragraph 8.j OF ER 1110-1-8156

I hereby certify that the PY program for the _____ (district, division, or laboratory name) Civil Works Program does not include an implicit or explicit request for funds to collect, produce, or acquire Geospatial data that is available through the National Geospatial Data Clearinghouse and that all possible data collection partnerships identified through the Clearinghouse were investigated. The _____ (district, division, or laboratory name) has also contributed metadata to the National Geospatial Data Clearinghouse in accordance with ER 1110-1-8156.

Colonel, Corps of Engineers
Commanding

FOR ILLUSTRATION PURPOSES ONLY
(TO BE TYPED AS NECESSARY)

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ILLUSTRATION 2A

DATE: _____

Certification of Compliance with Coastal Barrier Resources Act

I hereby certify that the PY program for the _____ (district name) District Civil Works Program does not include a request for funds which would result in any new federal expenditures or financial assistance prohibited by the Coastal Barrier Resources Act (PL 97-348), as amended by the Coastal Barrier Improvement Act of 1990 (PL 101-591).

Colonel, Corps of Engineers
Commanding

FOR ILLUSTRATION PURPOSES ONLY
(TO BE TYPED AS NECESSARY)

ILLUSTRATION 2B

DATE: _____

Certification of Compliance with Coastal Barrier Resources Act

I hereby certify that no Civil Works Program funds were obligated in PY-2 by the
_____ (district name) District for any new federal
expenditures or financial assistance prohibited by the Coastal Barrier Resources
Act (PL 97-348), as amended by the Coastal Barrier Improvement Act of 1990 (PL 101-
591).

Colonel, Corps of Engineers
Commanding

FOR ILLUSTRATION PURPOSES ONLY
(TO BE TYPED AS NECESSARY)

ILLUSTRATION 3

Management Control Evaluation Checklist

FUNCTION. The function covered by this checklist is Civil Works Program Development.

PURPOSE. The purpose of this checklist is to assist programs management organizations in USACE major subordinate commands (MSC) and districts in evaluating key management controls in development of their annual program requests. It is not intended to cover all controls.

INSTRUCTIONS. Become thoroughly familiar with the contents of the Program EC and read paragraph 14 of the MAIN part of this EC before completing the checklist. Answers must be based on the actual testing of key management controls (such as document analysis, direct observation, sampling, simulation, other). Answers which indicate deficiencies must be explained and corrective actions indicated in support documentation. A sample of ILLUSTRATION 3 is provided below.

TEST QUESTIONS:

1. Are funding schedules continuously reviewed and adjusted to reflect Congressional actions, the local sponsors' financial capability, and project progress?

Tested by:
Response: YES_____ NO_____ NA_____
Remarks:

2. Does development of the multi-year programs follow the guidance included in the applicable appendices of the Program EC?

Tested by:
Response: YES_____ NO_____ NA_____
Remarks:

3. Are alternative multi-year program proposals fully documented?

Tested by:
Response: YES_____ NO_____ NA_____
Remarks:

ILLUSTRATION 3
(Continued)

Management Control Evaluation Checklist

4. Is the multi-year Capability program independent of the other programs, yet consistent with Army policy and approved project cooperation agreements?

Tested by:
Response: YES _____ NO _____ NA _____
Remarks:

5. Have the "Class 1" rates of TABLE 1, "PY Program, Cost Estimate Updating," been applied to the pay-related costs for Civilian employees when preparing PB3a's and PB6's?

Tested by:
Response: YES _____ NO _____ NA _____
Remarks:

6. Have the "Class 2" rates of TABLE 1, "PY Program, Cost Estimate Updating," been used to update costs for consultants and AEs used in the various preconstruction planning and construction stages of work when preparing PB3a's and PB6's?

Tested by:
Response: YES _____ NO _____ NA _____
Remarks:

7. Have the "Class 1" and "Class 2" rates of TABLE 1, "PY Program, Cost Estimate Updating," been used for the period PY-1 through PY+19 for all PPAs when preparing PB3a's and PB6's?

Tested by:
Response: YES _____ NO _____ NA _____
Remarks:

ILLUSTRATION 3
(Continued)

Management Control Evaluation Checklist

8. Has the procedure in Footnote 8 of TABLE 1, "PY Program, Cost Estimate Updating," been used to determine rates for use in updating cost estimates beyond PY+19?

Tested by:
Response: YES _____ NO _____ NA _____
Remarks:

9. Are the appropriate discount rates being used to compute the benefit-cost ratios of projects?

Tested by:
Response: YES _____ NO _____ NA _____
Remarks:

10. Is the approval date of the latest economic analysis in accordance with the Budget EC?

a. For construction and PED new starts - not more than three years older than the date of the budget submission to HQUSACE?

Tested by:
Response: YES _____ NO _____ NA _____
Remarks:

b. For continuing construction and PEDs - not more than five years older than the date of the budget submission to HQUSACE?

Tested by:
Response: YES _____ NO _____ NA _____
Remarks:

ILLUSTRATION 3
(Continued)

Management Control Evaluation Checklist

11. Were benefit-cost ratio computations based on benefits in the latest approved economic analyses, were current project costs deflated to the price levels of such benefits, and were all review and certification requirements met?

Tested by:
Response: YES_____ NO_____ NA_____
Remarks:

12. Are new start recommendations justified based on NED benefits, or responsive to restoration and protection of environmental resources, including fish and wildlife habitat, i. e., inland and coastal wetlands, other aquatic and riparian habitat?

Tested by:
Response: YES_____ NO_____ NA_____
Remarks:

13. Do recommended new construction starts have firm M-CACES baseline cost estimates?

Tested by:
Response: YES_____ NO_____ NA_____
Remarks:

14. Have new start recommendations been screened according to the criteria established in the Budget EC?

Tested by:
Response: YES_____ NO_____ NA_____
Remarks:

ILLUSTRATION 3
(Continued)

Management Control Evaluation Checklist

15. Are data in the Construction and Investigations illustrations compatible, showing that:

a. Construction capability is shown for the fiscal year following PED completion?

Tested by:
Response: YES _____ NO _____ NA _____
Remarks:

b. Project cost estimates are identical?

Tested by:
Response: YES _____ NO _____ NA _____
Remarks:

16. Is the "Estimated Total Carry-In" included in all applicable budget justification sheets (Investigations, Construction and O&M)?

Tested by:
Response: YES _____ NO _____ NA _____
Remarks:

17. Are the latest (most current) cost estimates through project completion within the project 902a cost limit established in law? If not, provide project details in the remarks below.

Tested by:
Response: YES _____ NO _____ NA _____
Remarks:

18. Is there any reason to believe at this time, that any budgeted project will exceed 80% of the 902a cost limit before it is completed? If so, provide project details in the

ILLUSTRATION 3
(Continued)

Management Control Evaluation Checklist

remarks section below and to the MSC Commander, Chief, CECW-ID, and DCG, C+EO at the earliest possible date. Note that this question is different than #17 in that it asks for an opinion and is not definitive.

Tested by:

Response: YES _____ NO _____ NA _____

Remarks:

DATE PREPARED: _____

[NOTE: Help make this a better tool for evaluating management controls. Submit suggestions for improvement to HQUSACE (CECW-ID), Washington, D. C. 20314-1000.]

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ILLUSTRATION 4

DATE: _____

Certification of Use of Management Control Evaluation Checklist

I hereby certify that in the PY, (major subordinate command name) Division's Civil Works Program was developed making full use of the Management Control Evaluation Checklist.

Director of Civil Works Programs Management

FOR ILLUSTRATION PURPOSES ONLY
(TO BE TYPED AS NECESSARY)

ILLUSTRATION 5A

DATE: _____

Verification of Compliance with ER 1105-2-100 for BCR Updates

I hereby verify that the BCRs for projects submitted for the Civil Works PY budget submission from the _____ (district) were:

1. Developed in strict accordance with ER 1105-2-100 or an approved economic update based on the Methodology for Updating Benefit-to-Cost Ratios (BCR) for Budget Development dated March 8, 2012.
2. That the Oracle Financial Analyzer (OFA) Primavera 2v3 (P2) system data accurately reflects these economic updates.
3. If P2 / OFA does NOT accurately reflect these economic updates, the updates are accurately reflected in the Construction Project-level Data Sheet attached.

Check here ___ if there is an attachment (ILLUSTRATION 5B).

Colonel/Lt. Colonel, Corps of Engineers
Commanding

FOR ILLUSTRATION PURPOSES ONLY

(TO BE TYPED AS NECESSARY)

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ILLUSTRATION 5B

Construction Project-Level Data Sheet for BCR Updates
(To Be Attached to Illustration 5A as Needed)



ILLUSTRATION 5B

ILLUSTRATION 6

Sample Management Control Evaluation Checklist



Illustration 6

SECTION 2

This section provides information and guidance regarding three new initiatives by the Civil Works Integration and Planning Divisions within USACE to make the budget formulation and planning processes more streamlined, our investments more cost effective and to bring our budget into line with Administration overall goals and objectives. The new initiatives follow.

1. CW Budget Transformation – Top-Down Approach to Budget Formulation.

a. Background. As part of the FY 2013 Budget Development process, the ASA(CW) directed the initiation of a more 'top down', program-based, goal-focused discussion on budget development that would enable the Corps to improve communication regarding the value of the CW program to the Nation. The initial step was to identify contributions the Civil Works program makes toward a set of national goals and priorities that are consistent with the Civil Works Strategic Plan. The next step was to define multi-year program/business line goals, as well as annual supporting program/business line objectives, which enable an assessment of how best to recommend allocation of funds to accomplish those same national goals and supporting national program objectives.

Over a series of meetings with Business Line Managers, MSC CWID Chiefs, OASA(CW) staff and MSC Commanders during the last four months, a set of refined national priorities, goals and objectives emerged that were used by the Business Line Managers to which they could vertically map /align their individual Business Lines.

HQUSACE Strategic Integration Office then led an effort to confirm these initial Business Line mappings/alignments using a well-established logic model approach. Each Business Line Manager led a project delivery team (PDT) in developing 3-4 business line strategies which were identified as critical to the Business Line's accomplishment of the Civil Works Strategic Plan, as well as the national priorities, goals and objectives. Each Business Line PDT also developed initial performance measures to assess the accomplishment of these business line strategies, which would, in-turn, provide a means of measuring accomplishment of the national priorities, goals and objectives.

A series of three transformation summits and separate business line meetings were conducted to explain/verify/refine each Business Line's: 1) Initial vertical mapping /alignment to the CW Strategic Plan and the national priorities, goals and objectives; 2) strategies critical to the Business Line's accomplishment of the national priorities, goals and objectives; and 3) available data to assess initial performance measures.

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During the FY 2013 Budget Briefings to the Office of Management and Budget, the Corps examiners learned of our efforts and encouraged us to continue the approach for future Budget Development efforts.

b. Guidance. During the development of the FY 2014 Budget Development, CECW-ID will work with the DCG, C&EO to identify which Business Lines will develop criteria to support the assessment of individual work packages and implement a top-down budgeting approach for the FY 2015 Budget Development, in parallel with the normal performance-based budget submission.

2. CW Budget Transformation – Systems Approach to Budget Formulation.

a. Commander's Intent. In parallel with and in addition to the normal, performance-based FY 14 budget submission, each MSC will select one watershed/system within their geographic boundaries and develop and submit to HQUSACE, a "watershed-based budget". For the purpose of this exercise, a 'watershed-based budget' is defined as a sustainable five-year set of prioritized project-level investment options. This set of options, involving input and agreement from community, state, federal, and non-governmental stakeholders, provides the basis for the watershed activities that will be funded and those left unfunded each year. The pilot will run in parallel to the normal FY 14 budget development process and must not impact the MSC FY 14 budget submission scheduled for June 2012.

b. Purpose. A systems or watershed approach is needed to ensure that investments are integrated into a whole that preserves or enhances performance and sustainability at the system level. A systems approach requires consideration of the investment needs and priorities of all the business programs within the watershed. Analytical perspectives should be developed to help determine the mix in FY 14 of investments in maintenance, operations improvements, reallocation, major rehabilitation, new construction, planning, and design that will maximize system performance, safety, reliability and sustainability over time. Building of the MSC pilot watershed/system budget will be established around the National Watershed Vision concept that is tied to the National Goals/Priorities and National Objectives. Note that these National Goals/Priorities are from the FY13 Budget and that dialogue with Army and the Office of Management and Budget is ongoing to confirm/update these for the FY 14 Budget:

National Priority and Goals:

Reduce the Deficit

Create Jobs and Restore the Economy

Improve Resiliency and Safety of Infrastructure

Restore and Protect the Environment

Maintain Global Competitiveness

Increase Energy Independence

Improve Quality of Life

National Objectives:

Recapitalize, operate and maintain water resource infrastructure and high priority transportation infrastructure to provide maximum benefit to the Nation.

Develop, Restore, and Protect the Nation's waters, wetlands, and related resources.

Plan, Train, and Prepare for extreme flood events in order to reduce the risk of damages.

Improve federal energy, water, and petroleum efficiency, including measuring, managing, and reducing greenhouse gas emissions toward agency-defined targets.

Double exports from FY2010 to FY2015.

Provide stable, cost effective hydropower benefits to the nation.

c. Short-term Goal. The short term goal of this effort is to develop a pilot watershed/system budget development process for one watershed/system in each MSC. These pilots will be evaluated on the different approaches taken by each MSC for possible application in the FY15 budget. The focus will be on transforming the Civil Works budget process to incorporate a watershed/systems approach in the development of funding increments that are based on National goals and objectives.

d. Long-term Goal. The long term goals of this effort, are to: (1) better allocate the Corps funding allocations in the future in a more comprehensive and integrated manner; (2) better express outputs from a national perspective that could potentially result in additional funding or a better balance between MSCs based on the value to the nation; (3) recognize how the Corps' actions fit with the actions of other Federal agencies and our partners; (4) to reduce complexity and increase the level of MSC involvement in development of the budget and (5) to develop a multi-year program and ascertain why

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certain actions must be funded now and what percentage of next year's budget has already been established.

e. Guidance. The FY 14 MSC pilot watershed/system budget development process will enable HQUSACE to evaluate different approaches to assist in the formulation of the FY15 budget development guidance. **NOTE: More specific guidance regarding development of the MSC pilots will be forthcoming by addendum to this EC.**

(1) General. The MSC pilot system/watershed budget will include a five-year sustainable plan/program that is developed to meet the national priorities with a focus on effects of funding decisions for each watershed. These project-level investment options will: (1) compete for funds across multiple Corps Business Lines; (2) will include funding for studies/projects in the Investigations, Construction, and O&M Accounts; (3) be built in increments using work packages to ensure they are performance based; and (4) must be translatable to Corps Business Lines so that they may compete for annual funding as MSC requirements within the annual MSC budget submission.

(2) Stakeholder Input and Documentation with Submission. Input from other Federal agencies, states, tribes, and other stakeholders will be key input in the development of watershed priorities to ensure that Corps actions are integrated with other actions in the watershed and to maximize outputs from a watershed perspective. Watershed priorities developed by the MSC's should link to national goals and objectives and be developed based on the unique aspects of the pilot watershed. As part of the MSC submission to HQUSACE, each MSC will document the link to the national goals and objectives and how stakeholder input was obtained and how this shaped the overall prioritization. This documentation will be submitted in Microsoft Word format. MSC's are allowed to share national goals and objectives, performance based criteria and outputs, but not project packages or watershed increments.

f. Submission Requirements:

(1) Each MSC will submit to CECW-ID a Pilot Watershed/system Budget by 31 July. The submission will include: (1) a ranking of work packages for each BL in the watershed, (2) ranking explanations; (3) a Watershed/system presentation, and (4) a 5-year plan. The MSC will submit an explanation as to how they used the business line Program Objectives to determine the metric scores for the National Priorities/Goals for each incremental investment. The explanation should be comprehensive enough to allow an understanding of how metric scores were developed.

(2) During the first week of August each MSC will present their FY 14 MSC Pilot Watershed/system Budgets. The presentation should emphasize how the incremental investments meet the National Priorities/Goals and Objectives.

3. CW Planning Modernization – Feasibility Study Program Execution/Delivery.

a. In FY 2011, USACE initiated a significant effort aimed at improving Feasibility Program delivery, the reclassification and reset of feasibility Studies. The purpose of this initiative is to review all ongoing, protracted feasibility studies and reclassify to inactive those studies with limited likelihood of success so that we can focus our limited resources upon studies with the highest probability of success. Though significant progress was made in FY 2011, 288 of 653 ongoing feasibility studies were identified as eligible to be reclassified as inactive and there remains 350 active feasibility studies and another 68 feasibility studies ongoing for greater than 10 years.

b. CW Planning Modernization must focus on the highest performing projects and programs within the main water resources missions of the Corps by providing optimal funding and facilitating timely completions. This must be accomplished in concert with the creation of savings and efficiencies through reducing the portfolio of active studies. The Corps has an unprecedented opportunity to better align our internal processes and our project development portfolio with National priorities to support a CW Program that is responsive to the changing needs of the Nation. The modernization of the CW Planning Program is one of the main focus areas for the transformation of the CW Program and is the responsibility of the Planning Community of Practice and all Commanders to execute.

c. Previously funded studies that have not received appropriations (to include work plans) in FY 10, 11, or 12 or are not in the FY13 Presidents Budget may not be proposed for funding in the FY 14 budget submission (NOTE: use of the word “appropriations (to include work plans)” and “or” in this statement provides clarification to the original 8 Feb 2012 memorandum from the DCG, CEO). As part of the effort to reduce the size of the study program and focus the available resources on high priority activities, MSC Commanders have been directed to, eliminate any study that has not received appropriations in FY10, 11, or 12 or is not in the FY13 Presidents Budget. The target will be to reduce the national portfolio of studies by approximately one third.

APPENDIX A

References

Public Laws:

PL 84-99	Flood Control and Coastal Emergencies Act
PL 85-500	Water Supply Act of 1958
PL 89-72	Federal Water Project Recreation Act of 1965
PL 91-190	National Environmental Policy Act of 1969
PL 92-500	Federal Water Pollution Control Act Amendments of 1972
PL 93-251	Water Resources Development Act of 1974
PL 97-348	Coastal Barrier Resources Act
PL 99-662	Water Resources Development Act of 1986
PL 100-676	Water Resources Development Act of 1988
PL 100-707	Robert T. Stafford Disaster Relief and Emergency Assistance Act
PL 101-508	Revenue Reconciliation Act of 1990
PL 101-509	Federal Employees Pay Comparability Act of 1990
PL 101-591	Coastal Barrier Improvement Act of 1990
PL 101-601	Native American Graves Protection and Repatriation Act
PL 101-640	Water Resources Development Act of 1990
PL 101-646	Coastal Wetlands Planning, Protection and Restoration Act of 1990
PL 102-580	Water Resources Development Act of 1992
PL 103-62	Government Performance and Results Act of 1993
PL 104-303	Water Resources Development Act of 1996
PL 105-33	Balanced Budget Act of 1997
PL 106-53	Water Resources Development Act of 1999
PL 106-541	Water Resources Development Act of 2000
PL 108-137	Energy and Water Development Appropriations Act, 2004
PL 108-447	Consolidated Appropriations Act, 2005
PL 109-58	Energy Policy Act, 2005
PL 109-103	Energy and Water Development Appropriations Act, 2006
PL 110-5	Revised Continuing Appropriations Resolution, 2007
PL 110-114	Water Resources Development Act, 2007
PL 110-140	Energy Independence and Security Act, 2007
PL 110-161	Consolidated Appropriations Act, 2008
PL 111-8	Omnibus Appropriations Act, 2009
PL 111-85	Energy and Water Development Appropriations Act, 2010
PL 111-322	Continuing Appropriations and Surface Transportation Extensions Act, 2011
PL 111-352	GPRA Modernization Act

Executive Orders:

EO 11514	Protection and Enhancement of Environmental Quality
EO 12088	Federal Compliance with Pollution Control Standards, 1978
EO 12322	Water Resources Projects, 1981
EO 12512	Federal Real Property Management, 1985
EO 12893	Principles for Federal Infrastructure Investment
EO 12906	Coordinating Geographic Data Acquisition and Access: The National Spatial Data Infrastructure
EO 13423	Strengthening Federal Environmental, Energy and Transportation Management, 2007
EO 13450	Improving Government Program Performance
EO 13514	Federal Leadership in Environmental, Energy and Economic Performance, 2009

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Office of Management and Budget (OMB) documents:

Budget of the United States Government, Fiscal Year 2013, Analytical Perspectives
Budget of the United States Government, Fiscal Year 2013, Appendix
OMB Circular A-11 entitled: Preparation, Submission and Execution of the Budget

Department of the Army regulations:

AR 11-2 Managers' Internal Control Program
AR 385-10 The Army Safety Program

Corps of Engineers Engineer Circulars, Manuals, Pamphlets, Regulations, and policy announcements and letters:

EC 11-2-201	Programs Management: Execution of the Annual Civil Works Program
EM 1110-1-2909	Geospatial Data and Systems
EP 1130-2-500	Partners and Support (Work Management Guidance and Procedures)
EP 1130-2-540	Environmental Stewardship and Maintenance Guidance and Procedures
EP 1130-2-550	Recreation Operations and Maintenance Guidance and Procedures
ER 5-1-11	USACE Business Process
ER 11-1-320	Civil Works Emergency Management Programs
ER 11-2-220	Civil Works Activities General Investigation
ER 11-2-240	Civil Works Activities - Construction & Design
ER 11-2-290	Civil Works Activities, General Expenses
ER 11-2-292	Capability Estimates During Defense of Civil Works Program
ER 25-1-2	Life Cycle Management of Automated Information Systems
ER 25-1-106	Information Technology Capital Planning and Investment Management
ER 37-1-29	Financial Management of Capital Investments
ER 37-2-10	Accounting and Reporting Civil Works Activities
ER 200-1-4	Environmental Compliance Policies-Formerly Utilized Sites Remedial Action Program (FUSRAP) - Site Designation, Remediation Scope, and Recovering Costs
ER 200-2-3	Environmental Compliance Policies
ER 1105-2-100	Planning Guidance Notebook
ER 1110-1-8156	Policies, Guidance, and Requirements for Geospatial Data and Systems
ER 1110-2-100	Periodic Inspection and Continuing Evaluation of Completed Civil Works Structures
ER 1110-2-111	USACE Bridge Safety Program
ER 1110-2-1156	Safety of Dams – Policy and Procedure
ER 1110-2-1302	Civil Works Cost Engineering
ER 1130-2-500	Partners and Support (Work Management Policies)
ER 1130-2-510	Hydroelectric Power Operations and Maintenance Policies
ER 1130-2-540	Environmental Stewardship Operations and Maintenance Guidance and Procedures
ER 1130-2-550	Recreation Operations and Maintenance Policies
ER 1165-2-119	Modifications to Completed Project
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ER 1165-2-400	Recreational Planning, Development, and Management Policies

APPENDIX B

Homeland Security/Emergency Management

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APPENDIX B

Homeland Security/Emergency Management

B-1. Background. The Flood Control and Coastal Emergencies (FCCE) program was established in 1955 by Public Law 84-99, as amended (33 USC 701 n).

B-2. Purpose. The purpose of the Corps FCCE Program is to provide assistance for all Hazards Disaster Preparedness and Response. This includes activities under Robert T. Stafford Disaster Relief and Emergency Assistance Act (42 U.S.C. 5121 et seq.), Homeland Security/Emergency Operations, Rehabilitation of Flood Control Works and federally authorized and constructed Hurricane/Shore Protection Projects damaged or destroyed by wind, wave or water action of other than ordinary nature, provision of Emergency Water, Advance Measures to prevent or reduce flood damage when there is an imminent threat of unusual flooding and participation in the Hazard Mitigation program.

B-3. Civil Works Ten-Year Plan. The purpose of the Civil Works Ten Year Development Plan is to present an overview of the funding required for the Civil Works program over a 10 year period. The five Year Development Plan (FYDP), a standalone document will be based on a subset of the 10 year program and will produce results that contribute to the achievement of strategic goals and objectives in the Civil Works Strategic Plan. The Civil Works Plan is increasing to include a ten year funding stream. For the Homeland Security/Emergency Management program the proposed increments included in this Appendix were developed to provide the glide path to get the program to its target goals within the proposed ten year plan. A detailed budget will be prepared for PY, PY+1, and PY+2, using the template provided. PY+3 to PY+9 will be input at the top level of Work Breakdown Structure (WBS) and each year will reflect an increase of 3% from the prior year.

B-4. Program Objectives. TABLE B-1 below displays the FCCE Program Objectives and Performance Measures published in the September 2011 Civil Works Strategic Plan. The CW Strategic Plan was developed with an explicit assumption of an unconstrained resource environment to encourage an unconstrained assessment of the nation's water resources needs and potential Corps response. Preparation of the PY Budget Request requires the recognition of a constrained budget environment and the ongoing effort to evolve better budget linked performance measures. TABLE B-2 displays the program performance measures and performance ranking and rating criteria which support and/or supplement TABLE B-1 program objectives and performance measures to reflect the near term realities of a constrained PY budget environment.

B-5. FCCE Performance Measures. The FCCE program is a well-established, multi-faceted program that encompasses disaster preparedness, response and recovery activities in support of federal, state and local stakeholders. Due to the emergency nature of this program, funding must be available for preparedness and response requirements. To achieve the FCCE goals, the following program budget objectives and rating criteria are established for PY program. We have also established a system of ranking criteria that are more detailed than those in the Strategic Plan and will permit objective evaluation of expenditure of funds.

TABLE B-1

Strategic Plan Objectives and Performance Measures

Program Objectives	Performance Measures
1. Attain and maintain a high, consistent state of preparedness	- Planning Response Team Readiness index - PL84-99 Response Team Readiness index - Percent of scheduled inspections performed for all non-Federal Flood Control Works in Rehabilitation and Inspection Program (RIP), as required by ER 500-1-1
2. Provide rapid, effective, efficient all-hazards response.	- Percent of time solutions are developed and implemented (either repaired to pre-flood conditions or possible non-structural alternative) prior to next flood season
3. Ensure effective and efficient long-term recovery operations.	- Percentage of Federal and non-Federal flood control works in the Rehabilitation and Inspection Program with a satisfactory condition rating

TABLE B-2

Measures Rating Criteria

Program Measures	Measure Rating Criteria
1. Planning Response Team Readiness index.	This measure tracks the percent of the time that Planning Response Teams for a given mission area are in the Green state of readiness (trained, staffed, ready to deploy).
2. PL84-99 Response Team Readiness index.	This measure tracks the percent of the time that PL84-99 Response Teams are in the Green state of readiness at the beginning of flood/hurricane season (trained, fully staffed, ready to deploy).
3. FCW (Levees, floodwalls, etc.) inspections performed.	Percent of scheduled inspections performed for all non-Federal Flood Control Works in RIP, as required by ER 500-1-1.
4. Deployable Tactical Operations System (DTOS) Readiness Index	Measures the readiness status of the national deployable support equipment and teams.
5. Develop/maintain/exercise preparedness plans	Measures development, maintenance, exercising of contingency plans, SOPs, Guides, etc. IAW 1yr/5yr. MSC/District work plans (Flood/Hurricane/NRF (natural disasters), etc.)
6. Execution of the National Training, Exercise and Evaluation and Corrective Action	Measures the effective execution of the national (USACE-wide) readiness life cycle
7. Conditional rating of Federal and non-Federal flood control works	Tracks the condition of Federal and non-Federal FCW (approximately 3000) in the RIP. Provides an opportunity to judge program and expected project performance as the projects age and potentially deteriorate. Measurement reflects cumulative percent of projects with satisfactory rating (national database).

8. PRT Performance	Measures the performance of PRT mission/functional during response in support of FEMA/DHS under the NRF.
9. ESF #3 Cadre Performance	Measures the performance of ESF #3 TL/ATL during response in support of FEMA under the NRF.
10. Restoration of damaged FCW.	Percent of time solutions are developed and implemented (either repaired to pre-flood conditions or possible non-structural alternative) prior to the next flood season.
11. Homeland Security/Emergency Management Readiness Index	MSC/District maintained in an operations readiness status for all hazards contingency requirement. Operational readiness includes staffed, trained, equipped cadres for both supported and supporting MSC/District roles.
12. Career Management and Credentialing	HQ/MSD/District has effective career management and training program for senior staff and progression of responsibilities for other positions.
13. Homeland Security/Emergency Management business process	MSC/District develop and maintain 5-year plan forecasting organizational structure and purpose while indicating resources (dollars & hours) required as part of the budget process utilizing standardized budget guidance. Meet all mission essential tasks for overall MSC/District goals and objectives relative to Homeland Security/Emergency Management.

B-6. Budget Screening Criteria. The following criteria will be utilized to address deficiencies and prioritize the expenditure of available funds. (The following criteria are not intended to imply that all funding will necessarily be eliminated in a given category before moving to the next priority):

- a. Limit or eliminate training and exercises for response personnel.
- b. Postpone the rehabilitation of damaged flood control work (FCW).
- c. Limit or eliminate advance measures activities.
- d. Reduce or eliminate funding for equipment purchases for operational needs.
- e. Limited emergency operations capability.
- f. Reduce or eliminate funding for non EM and temporary Staff.
- g. Reduce or eliminate funding for EM staff at all levels.

B-7. Program Rating and Ranking Criteria for PY Budget Development.

a. All [Ceiling (lowest minimum threshold), Recommended, and Capability] FCCE Programs consist of functions required to ensure USACE is ready to respond to a broad range of disasters and emergencies. It includes coordination, planning, training, and the conduct of response exercises with key local, state and federal stakeholders/partners under our own statutory authorities and in support of the Federal Emergency Management Agency, Department of Homeland Security. It also provides the vehicle for the purchase and stockpiling of critical supplies and equipment and support facilities (Emergency Operations Centers) to include upgrade of existing deployable tactical operations systems (DTOS). Additionally, these activities ensure USACE personnel assigned emergency assistance responsibilities are trained and equipped to accomplish their missions and includes, but is not limited to: personnel assigned to Emergency Operations Centers,

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Crisis Management Teams, Crisis Action Teams, Regional Operations Centers, Planning and Response Teams, Special Cadres, Levee Inspection Teams and general response personnel.

b. Major preparedness efforts include the review and updating of response plans based on lessons learned from recent disasters, training of personnel and teams to develop critical skills which enhance the capability to respond under adverse conditions, procurement and prepositioning of critical supplies and equipment (i.e., sandbags, pumps) which likely would be otherwise unavailable during the initial response stages, periodic exercises to test and evaluate plans, personnel, and training, inspection of non-Federal flood control projects to ensure their viability to provide flood protection and assess their eligibility for post-flood rehabilitation, laboratory support for field operations, liaison with state and local governments and agencies, and effective management to ensure workable, coordinated efforts that will meet the needs of disaster victims. The funding identified under All Hazards Preparedness Activities reflects expanded national and regional planning, training and coordination to support response to all hazards that includes disasters under the umbrella of the National Response Framework (NRF).

B-8. Special Considerations or Special Rating Criteria.

a. USACE plans for all hazards, but response and recovery under its own authority (FCCE) is limited to -- flood fighting or coastal storms (direct and technical assistance), provision of emergency water, advance measures, and restoration of federal/non-federal flood control works. All other responses are funded by external authorities (i.e. Stafford Act).

b. Due to the uncertainty of the number and severity of disasters, HQs develops the program funding requirements for activities other than the baseline operational and preparedness costs.

B-9. PY Budget Development.

a. MSCs and Districts will submit a performance based budget that identifies those outcomes and outputs that can be achieved and/or measured during the execution year. Prepare PY budget in accordance with this EC and update CY budget in accordance with supplemental guidance from HQ. Districts and MSCs will prepare ILLUSTRATIONS B-1.1 thru B-1.3 (Instructions, MSC FTE Rollup Chart, Support, Baseline, Recommended, and Capability Worksheets, P2-OFA Spreadsheet,) are found at the end of Appendix B. **Submit separate worksheets for Baseline, Recommended and Capability budgets.**

(1) Increment 1 (Baseline) - the baseline budget requirement which is at the existing level of service plus the OMB accepted rate of inflation. Each MSC and District will start their budget process using a maximum of three FTE per office. All additional FTE's or part of an FTE must be justified and will be submitted through the Division to HQs for review. The baseline budget should include only existing staff and current approved FTEs (no new staff requirements); existing leases not funded through revolving fund; and required ancillary costs to support minimum requirements.

(2) Increment 2 (Recommended) - additional recommended non-constrained requirements not reflected in Increment 1.

(3) Increment 3 (Capability) – additional non constrained not reflected in increments 1 and 2. The summary of 1, 2 and 3 will equal the total capability.

b. Under the Rehabilitation and Inspection Program, a supplemental document will be required that identifies those projects to be inspected and associated costs. The Work Plan should only have a roll up of the cost. However, Districts are requested to supplement the Work Plan with a separate sheet that indicates the projects and schedules for inspection. Refer to Appendix D for the Levee Safety Program, for guidance to develop the program year budget activities for inspections of non-Federal projects. Refer to Appendix D also

for guidance on initial and additional increments for Levee Safety Program activities. Budget requirements will provide for positive contributions to the applicable business line performance measures. Justification for specific new items from the previous fiscal year must be provided. All work resources identified will be linked to the existing Performance Measures and should tie into current Mission Essential Task Lists (METLs) identified by each organization.

B-10. P-2/Oracle Financial Analyzer (OFA) Requirements.

a. P-2 will be used to summarize the Flood Control and Coastal Emergencies (FCCE) funding categories for the PY budget year with CY updates. Emergency activities requiring Category 200 (Emergency Operations) funds or Category 300 (Rehab and Inspection Program) funds will not be included in this budget exercise. Category 100 (Disaster Preparedness Program) and sub-categories 360 and 610 (Hazard Mitigation) will be included.

b. This section provides guidance and common structures for the FCCE project represented within Primavera Project Manager (PPM). The project consists of a set of activities that are included in the budget, based on Emergency Management Accreditation Program (EMAP) standards. The activities within the project require resourcing. For example, these resources will include but are not limited to labor, contracts, travel, supplies and materials, etc. The total cost of supplying these resources for a given activity represents the budget amount that the activity requires within the budget. The total cost of all activities represents the total budget required by the project.

c. The following instructions describe required, specific tasks to develop the PY budget for the Corps HS/EM projects using PPM/OFA.

(1) General Directions.

(a) PPM will be used to summarize the Categories of funds requested for FCCE (Category 100), sub-categories 360 and 610.

(b) For HS/EM, use the EM Preparedness (FCCE) template accessed through "Project Architect" within the project.

(c) A Program Code must be entered on each P-2 project. The program code must be the six character AMSCO/CWIS code that has been assigned in CEFMS for the project. If multiple P-2 projects have been created from one AMSCO/CWIS, then each P-2 project must be assigned the same program code.

(2) For effective use of PPM, the following information will aid data entry.

(a) Create a separate WBS for each budget year to be named FCCE Preparedness Budget FYXX. The WBS should be "Planned" Status so that proposed budgets will remain in P-2 alone until ready for transfer to CEFMS.

(b) Each Project Manager can add additional activities and resources needed to complete PY work. All work will be described as one or more activities that require resources to complete. On each activity which is resourced for PY, enter the applicable increment value in the "CW Funding Increment" activity code; either a "1" to signify the baseline funding requirement, a "2" for recommended funding, and a "3" for capability funding. This code will be used to identify an activity as a PY budget activity, and will be used to extract PY budget activities for OFA. Please do not assign this activity code to any activities that are not part of the PY budget.

(c) Program Managers, Business Line Managers, Division Chiefs, Commanders, and other interested parties in each District and MSC can begin review of the PY budget data as soon as it is added by the Project

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Manager. Each District and MSC will likely have their own processes to review budget data. Much of the review can be done using PPM and some can be done using OFA. Budget reports will be developed to show detail and summary data needed to review the budget.

(d) HQ will evaluate each increment in the business area and set the overall rank of each increment.

(3) Specific data fields entered in PPM will be extracted nightly by the P-2 system and loaded into OFA. An OFA data entry form can then be used to adjust the data as needed and provide additional data which does not exist in PPM. See ILLUSTRATION B-1.3 for the OFA Spreadsheet. Each record (or row) of budget and performance measure data in the OFA data entry form will be detailed by the following seven key fields. Note: that if two budget activities in Primavera have identical values for all seven key fields, they will be roll together into one budget item when they are extracted into OFA.

(a) Business Line. The primary Business Line is EM for Homeland Security/Emergency management.

(b) Engineer Resources Organization Code (EROC). Used to identify District/Division

(c) CW Type of Funds (Appropriation/CCS). This data element identifies the FCCE Appropriation-Category-Class, such as 96 3125 110, 96 3125 120, 96 3125 130 and 96 3125 160.

(d) Project Number. Assigned when the project is created in PPM.

(e) Funding Increment. This data element identifies the business funding increment for each activity. Increment 1 is used to identify the baseline funding requirement, Increment 2 signifies recommended funding and Increment 3 identifies capability funding.

(f) Budget Item ID. Enter N/A

(g) Phase Activity. Enter N/A.

(4) Additional Fields of Interest on OFA:

(a) Enter N/A in the following OFA data fields which are not applicable to EM: Primary Feature Code, Additional Feature Codes, Mitigation Requirement Code, GBL Sustainability (EO 13514), Phase, Phase Status, Phase Completion, System Code, Basin Code, State, Contract Type.

(b) The District and MSC Rank fields are for optional use. The Army, HQ, and President's Budget Rank fields are for HQ use only.

(c) Current Budget – Federal. This field displays the resourced amount entered in PPM for the budget item. This is for information purposes only.

(d) Budget Request (Federal). Enter the requested amount in whole dollars. This field is required.

(e) Budget Item Justification. Enter a short explanation of the purpose of the budget item. This field may also be used to add comments or clarify any entries for the budget item. The maximum length is 489 characters.

ILLUSTRATION B-1.1

MSC Budget Submission Template



ILLUSTRATION B-1.1

ILLUSTRATION B-1.2

District Budget Submission Template



ILLUSTRATION B-1.2

ILLUSTRATION B-1.3

P2 OFA Spreadsheet



ILLUSTRATION B-1.3

APPENDIX C

Environment

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SUB-APPENDIX C-1

Overview

C-1-1. Introduction. Numerous Federal laws and executive orders establish National policy for and Federal interest in the protection, restoration, conservation, and management of environmental resources. These provisions include compliance requirements and emphasize protecting environmental quality. They also endorse Federal efforts to advance environmental goals, and a number of these general statements declare it national policy that full consideration is to be given to the opportunities that projects afford to ecological resources. Recent water resources authorizations have enhanced opportunities for Corps involvement in studies and projects to specifically address objectives related to the restoration of ecological resources and ecosystem management. Specific authorities for new individual studies and projects to restore ecological resources have also been provided in legislation. Examples of legislation that broadly supports Federal involvement in the restoration and protection of ecological resources include:

- a. Federal Water Project Recreation Act of 1965, as amended.
- b. The National Environmental Policy Act of 1969, as amended.
- c. Water Resource Development Acts of 1986, 1988, 1990, 1992, 1996, 1999, 2000 and 2007.
- d. Coastal Wetlands Planning, Protection and Restoration Act of 1990 (Title III of P.L. 101-646).

C-1-2. Components of the Environment Business Line.

a. The Environment Business Line includes the Corps Ecosystem Restoration studies and projects, Stewardship and the Formerly Utilized Sites Remedial Action Program. A portion of the funding for Research and Development and corporate data collection activities will also be accounted for in the Environment Business Line but these items will be budgeted similar to previous years. Although the Environmental CAP (sections 1135, 204, and 206) is part of the Environment Business Line, it will be budgeted in Remaining Items for FY 14.

b. Ecosystem Restoration is funded primarily from the Investigations, Construction, and Mississippi River and Tributaries accounts. Inspection of Completed Environmental Projects and Operations and Maintenance for Everglades projects are funded from the Operations and Maintenance account. Related budget development guidance can be found in Annexes I, II, and III respectively. The goal of ecosystem restoration is to restore degraded ecosystem structure, function, and dynamic processes to a less degraded, more natural condition in a cost effective manner.

c. Stewardship is funded from the Operations and Maintenance and Mississippi River and Tributaries, Maintenance accounts and related budget development guidance is found in Annex III. As a matter of law and good environmental practice, the Corps provides stewardship of its projects lands and waters to sustain healthy natural resources and cultural resources that occur on this federal estate and takes action to minimize adverse environmental impacts.

d. The Formerly Utilized Sites Remedial Action Program has its own account and information required to develop the initial and capability level funding programs is found in Sub-Appendix C-4 of this Appendix. The purpose of the program is to clean up contaminated sites throughout the United States where work was performed as part of the Nation's early atomic energy program.

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C-1-3. Increments. Increments identifying similar levels of effort towards completion of a study or project or contribution to various level of project operation have been identified for each funding account. Increments for Investigation, Construction, and Formerly Utilized Sites Remedial Action Program relate primarily to progress against the schedules in Performance Management Plans. Increments are not funding levels nor are they ranking criteria.

C-1-4. Additional Information. More detailed information on the budget development, including minimum eligibility requirements and terms are found in the MAIN section and budget account Annexes I, II, and III. The following sections describe the three components included in the Environment Business Line in more detail, including performance measures, ranking criteria and data requirements for development of the PY budget.

C-1-5. Ranking. Each of the three components in the Environment Business Line will be ranked individually. Ranking will be within the individual component only and not across the Environment Business line.

SUB-APPENDIX C-2

Ecosystem Restoration

C-2-1. Background. The Corps recognizes ecosystem restoration as one of its primary mission areas within the Civil Works Program. This Sub-Appendix provides guidance for preparing the PY budget request. It is consistent with and does not alter the plan formulation and project justification guidance contained in ER 1105-2-100 and other planning and policy guidance.

C-2-2. Purpose. The goal of ecosystem restoration is to restore degraded ecosystem structure, function, and dynamic processes to a less degraded, more natural condition. Restored ecosystems should mimic, as closely as possible, conditions which would occur in the area in the absence of human changes to the landscape and hydrology with a minimum of continuing human intervention. This includes an emphasis on species native to the project location. Those restoration opportunities that are associated with wetlands, riparian and other floodplain, and aquatic systems are most appropriate for Corps involvement. The focus of projects/activities implemented under this section of the guidance is the restoration of ecosystems and ecological resources; it does not include restoration of cultural and historic resources, aesthetic resources, clean-up of hazardous and toxic wastes or recreation. It does not include Environmental Infrastructure projects.

C-2-3. Civil Works Program Five and Ten Year Development Plans.

a. TABLE C-2-1 below displays the Ecosystem Restoration Objectives and Performance Measures published in the September 2011 Civil Works Strategic Plan, Sustainable Solutions to America's Water Resources Needs 2011-2015 (see the Corps website at: <http://www.usace.army.mil/Missions/CivilWorks.aspx>). Preparation of the PY Budget Request requires the recognition of the ongoing effort to link budget requests to program performance using the business line performance measures. TABLE C-2-2 displays the Ecosystem Restoration objectives, performance measures, and/or performance ranking and rating criteria which support and/or supplement TABLE C-2-1 objectives and performance measures to reflect the near term realities of a constrained budget environment. Additionally, the strategic plan emphasizes the development of projects within a watershed framework and collaboration with other agencies and organizations. This is reflected in the data requirements.

b. The purpose of the Civil Works Ten Year Development Plan is to present a funding stream for the Civil Works program over a ten-year period. See paragraph 12 in the MAIN section of this EC. The 10 year period (PY-PY+9) approximates the implementation life of a project from start to finish. The five year Development Plan (FYDP), a stand-alone document, uses a subset of the 10 year plan to produce results that contribute to achievement of the strategic goals and objectives in the Civil Works Strategic Plan. The two multi-year plans for the Ecosystem Restoration Program focus on cost effective restoration of nationally and regionally significant resources while providing a budgetary framework that facilitates achievement of program goals.

TABLE C-2-1

Goals, Objectives and Performance Measures in the Civil Works Strategic Plan

Goal 3: Restore Degraded Aquatic Ecosystems and Prevent Future Environmental Losses.	
Objective 3.1 Provide sustainable development, restoration and protection of the Nation's water resources by restoring degraded habitat.	
Objective	Performance Measures
<u>Ecosystem Restoration</u> 2.1.1. Invest in restoration projects or features that make a positive contribution to the Nation's environmental resources in a cost-effective manner.	Acres of habitat restored, created, improved or protected.

C-2-4. Ecosystem Restoration Performance Measures.

a. Since 1986, the Corps has received increased authority to implement ecosystem restoration projects and the number of implemented projects has increased dramatically in the last decade. These projects range in size from a few acres to several thousand acres, such as the Everglades. A wide variety of ecosystems and habitat types are involved and the techniques used are as varied as the problems addressed. In order to support continued investment in ecosystem restoration activities the results need to be documented. This budget guidance establishes performance measures and ranking criteria, that when used to evaluate each study and project, will result in the formulation of a justified and supportable budget.

b. A nationwide perspective must be maintained to assure that available funding is used to provide the most cost effective restoration of nationally and regionally significant resources. It is also important to support timely completion of high performance studies and projects so that the expected benefits may be achieved as soon as possible. As our knowledge of ecosystem benefits and feasible restoration techniques increases, it is also important to have the capability to initiate new studies. The ranking criteria to be used in development of the PY budget are designed to assure that the available funding provides the greatest public benefit for the investment while continuing to investigate restoration opportunities and completing high performing projects in a timely manner so that benefits may be achieved as soon as possible. To achieve the Ecosystem Restoration goal, the budget objectives and ranking criteria contained in TABLE C-2-2 are established for the PY budget. Each of the objectives and criteria are designed to demonstrate that each budget item makes sense and contributes to the Civil Works objectives and the Ecosystem Restoration goal.

c. The data requested will also contribute to our ability to predict our performance. Quality of the restoration is a concern and seven of the criteria are designed to address this aspect of the ecosystem restoration program. Additional information about the ranking criteria is found in paragraph C-2-11 and in TABLE C-2-2.

TABLE C-2-2

Ecosystem Restoration Budget Ranking Criteria

CW Program Objective	Budget Objective	Ranking Criteria
Invest in restoration projects or features that make a positive contribution to the Nation's environmental resources in a cost-effective manner	Keep ongoing high performing studies or PEDs proceeding at an efficient rate if likely to produce recommendation for project (I)	Watershed for studies Significance <ul style="list-style-type: none"> - scarcity - connectivity - special status species - hydrologic character - geomorphic condition - self-sustaining - plan recognition Acres for PED Years to complete Other purpose outputs
Same	Start new phase of high performing studies or PED (I)	Watershed for studies Significance Acres for PED Other purpose outputs
Same	Complete on-going high performing studies and PEDs (I)	Significance Acres for PED Other purpose outputs
Same	Complete ongoing high performing construction phases to start getting benefits (C)	Significance Acres Other purpose outputs
Same	Keep on-going high performing construction proceeding at an efficient rate. (C)	Significance Acres Years to complete Other purpose outputs
Same	Initiate new high performing construction (C)	Significance Acres Other purpose outputs Years to complete

d. A system of ranking criteria has been established that is more detailed than the criteria in the Strategic Plan and will permit objective evaluation of incremental investment choices to assure that budget requests above the initial increment provide the greatest benefit for that investment. The initial increment and the system of ranking criteria will facilitate making informed and wise budgetary decisions.

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C-2-5. Performance Based Budgeting.

a. Performance should be a primary factor in ranking budget items. Additional budget items above the initial increment should consist of logical, needed items of work that contribute to the Civil Works program goals. The basis for adding items of work will be demonstrable beneficial impact resulting from accelerating project completion and/or improved performance, such as cost savings achieved by combining work items. Budget items should be added in priority order based on the performance components and ranking criteria shown in TABLE C-2-2. Rationale for any exceptions to this rule must be documented in the Narrative Justification column. Each contract in the Construction Account or for similar activities in the MR&T and Operations and Maintenance Accounts must be a separate line item.

b. Inspections of ecosystem restoration projects/separable elements may be included in either Operations account increments one or two if they are determined to be critical based on complexity and age of the features and if the criteria in Annex III regarding the Operations and Maintenance account increment definitions are met. Non-critical inspections should be placed as appropriate in increments 3 and 4. Each District will have an entry for every state/system in which an inspection is proposed in accordance with the guidance in Annex III.

C-2-6. Asset Management. In order to further development of the USACE Asset Management Program, the PY Budget will link PED, construction and operation and maintenance costs to major assets using the constructed asset's Feature code. The spreadsheet contains two columns to link the work packages with constructed assets. Column 8, PRIMARY Feature Code, should be populated with the Feature Code for the major constructed asset that the budget work package supports. Column 9, ADDITIONAL Feature Codes, would list additional Feature Codes associated with other real property assets that the work package will address. These will typically be associated with operations and routine maintenance. Additional information about feature codes is found in the Glossary at the end of this EC under "OFA Common Data Field Definitions (for all Business Lines)". Consider the entire list and try to use the fields consistently within a Division. It appears that the codes most apt to apply to ecosystem restoration projects as primary features are 01 Land, 06 Fish and Wildlife Facilities, 09 Channels and canals (including weirs, vanes, etc.), 16 Bank stabilization, and 17 Beach Replenishment. Additional feature codes most apt to apply include 03 Reservoirs, 04 Dams, 05 Locks, 11 Levees, and 14 Recreation. An example might be that for the project to install sensors in locks to prohibit the gates from closing on Manatee the primary feature code would be 06 Fish and Wildlife and an additional feature code would be 05 Locks. Kissimmee might have a primary feature code of 09 – channels and canals. Seeding submerged aquatic vegetation might have a primary code of 01 Land.

C-2-7. Systems Approach.

a. Consistent with the Civil Works Strategic Plan a systems approach or watershed approach is encouraged to ensure that investments are integrated into a whole that preserves or enhances performance and sustainability at the system level. A systems approach requires consideration of the investment needs and priorities of all the business lines within the watershed. All PY budget items (studies, construction, and O&M) will include the USGS HUC sub-region (4 digits) codes. These codes may be found at http://water.usgs.gov/GIS/huc_name.html. A list of 52 Systems has been developed (see TABLE III-5-1). MSCs will use the systems within their respective regions of the U.S. and develop budget priorities that are consistent with investing in one or more of the following aspects of the system: the highest risk portions of the system; that will result in the most improvement in performance; that contribute to increased navigation reliability and safety; that contribute to increased flood damages prevented; that contribute to addressing significant regional or national ecological problems. A system will generally be identified as a watershed and may include multiple individual projects and components. For additional information see the MAIN section of this EC, paragraph 11.

b. Studies (reconnaissance and feasibility) and PED that have multiple outputs (watershed or multi-purpose) will be budgeted in the primary business line. When the project moves into construction the construction requests will be by appropriate business line.

C-2-8. Watershed Studies. Watershed studies are multi-objective/multipurpose and encompass a relatively large geographic area. As a minimum, the study area must encompass the region of an 8 digit HUC. Following the reconnaissance study, a study may proceed as a watershed assessment using 75-25 cost-sharing (leading to a watershed management plan) in accordance with Section 729 or as a feasibility study accomplished in a watershed context in accordance with the standard feasibility study process and 50-50 cost-sharing when implementation of a Corps project is anticipated. The key attributes of a watershed assessment, leading to a watershed management plan are as follows:

a. The study results in the identification of a combination of recommended actions (a Watershed Management Plan) to be undertaken by various partners and stakeholders in order to achieve local, tribal, regional, and national water resources management goals identified in the study and may or may not identify further budget able Corps studies or implementation projects. The plans will be multi-objective and multi-purpose.

b. Team thinking about water resources development and management in the context of multiple purposes rather than single purposes is required. This facilitates the search for comprehensive and integrated solutions to a variety of issues.

c. The study provides a means for improving opportunities for public and private groups to identify and achieve common goals by unifying on-going and future efforts.

d. Leveraged resources, including cost shared collaboration, and integrating programs and activities within and among Civil Works programs, and with other Federal, tribal state and non-governmental organizations, is a critical factor.

C-2-9. Budget Screening Definitions.

a. New Start Definition.

(1) A New start is defined as an active authorized study or project which has not received an initial work allowance and that fits into at least one of the following business lines: commercial navigation; inland navigation; flood and storm damage reduction; ecosystem restoration; water supply, hydropower; or recreation.

(2) The New Start definition will apply to Reconnaissance studies and Construction Projects, as well as any new efforts under the Remaining Items category. Any PED, which has not been funded in the Conference Report for the past three years, will also be considered a New Start. For Feasibilities, see New Phase definition; however, a new start decision would be needed for a feasibility study being initiated after, say, an O&M-funded appraisal without an intervening reconnaissance new start decision. Basic eligibility criteria for construction new starts are found in Annex II, TABLE II-2-1.

b. New Phase Definition. A study or project is considered to be in a NEW PHASE once it has completed the current phase that is funded and ready for budgeting in the follow-on phase, e.g. from Reconnaissance to Feasibility or Feasibility to PED, e.g. Seamless PEDs are a new phase.

C-2-10. Increments. The following paragraphs apply to Investigation, Construction and comparable items in MR&T Account.

a. The following increments are primarily process/schedule driven. Only the first Investigation increment has a funding constraint. The increments are not funding levels. The first funding line for any continuing study/project/separable element will probably fit the criteria for either the first or the second increment. The first funding line item for a new start or resumption will be labeled Increment 3. There may be more than one funding line for a study/project/separable element that meets the criteria for an increment. For example if a contract and significant staff time were required to meet the optimal schedule in the PMP, Increment 3, there might be two funding lines for that project with an increment 3 designation. Every contract in the Construction account and for construction in the MR&T account is a unique funding line. For an individual study/project/separable element an item may not be ranked before other items for that study/project/separable element that meet the definition for preceding increments. For example for project X an increment 3 item may not precede a project X increment 2 item in the rankings. The rankings are to be based on performance. This means that higher increments for some studies/projects/separable elements may be ranked higher than lower increments for other studies/projects/separable elements. For example Increment 3 of project X may precede Increments 1 and/or 2 for project Y in the ranking.

b. Definitions.

(1) Work Increment. A work increment is a discrete amount of work identified by an activity or a set of activities with specific resource requirements and a schedule.

(2) Activity. A component of work performed during the course of a project. An activity could be a process (e.g. collection of data) or lead to a deliverable (write a report). Activities are the building blocks of the P-2 system – they have assigned durations, resources, and relationships.

c. Investigation Increments. Increments (for studies, and pre-construction engineering and design of specifically authorized and MR&T investigations):

(1) Increment 1. This increment will include only the minimum continuing and new study activities and the total request is limited to the budget amount for PY-1, by study. *Do not include new PED or study phases.* If a study is ready for changing phases or is no longer likely to produce a high performing project, then the Increment 1 level for that study will be zero. Increment must be performance based and integral with a study or project high outputs and consistent with ranking.

(2) Increment 2. New phases of studies previously budgeted may be initiated in this increment. Studies that do not have an Increment 1 may reflect the study activities in Increment 2. Studies that have a high probability of recommending a project with high value output may include additional activities in this increment that will provide improvement to the study completion compared to the items submitted in increment 1. Increment must be performance based and integral with a study or project high outputs and consistent with ranking.

(3) Increment 3. This increment will include the activities needed to sustain (not fall behind/not accelerate) the study schedule included in the PMP. New starts and resumptions may be included. Increment must be performance based and integral with a study or project high outputs and consistent with ranking.

(4) Increment 4. This increment includes additional capability activities that can be supported by cost sharing sponsor and Corps resources. This increment can be viewed as enhancing (or advancing) the study schedule at a faster pace than shown in the PMP. Increment must be performance based and integral with a study or project high outputs and consistent with ranking.

(5) Increments 5-8. Not used.

(6) Increment 9. Place unbudgetable studies in Increment 9.

d. Construction Increments. For all contracts that are proposed for full funding, the total estimated amount for E&D and S&A will be included with the contract. Each contract included in any increment must be shown separately to allow individual funding decisions based on the performance metrics and must be shown in priority order by District and MSC Rank.

(1) Increment 1. This increment will include only the minimum project activities budgeted in, and continuing from, PY-1. Only true continuing contract needs, and the Engineering and Design during Construction (EDC) and Supervision and Administration (S&A) of contracts fully funded in PY-1 and before may be included in this increment. Do not include any continuing incrementally funded contract requirements. Do not include new contracts, options, or funding for the engineering and design activities for new contracts. Only mandatory real estate activities for required project lands, easements, and right-of-ways may be included. Increment must be performance based and integral with a study or project high outputs and consistent with ranking.

(2) Increment 2. This increment will include continuing incrementally funded contract requirements for ongoing projects, new contracts, engineering and design for future contracts or other activities (show each separately), and EDC and S&A for new contracts awarded in PY. Real estate activities for required project lands, easements, and right-of-ways may be included. Increment must be performance based and integral with a study or project high outputs and consistent with ranking.

(3) Increment 3. This increment will include activities and contracts needed to sustain (not fall behind but not accelerate) the efficient project schedule based on the PMP. This increment may include projects that do not qualify for increment 2, and may include continuing incrementally funded contract requirements, new contracts, engineering and design for future contracts or other activities (show each significant activity separately), and EDC and S&A for new contracts awarded in PY. Real estate activities for required project lands, easements, and right-of-ways may be included. New starts and resumptions may be included. Increment must be performance based and integral with a study or project high outputs and consistent with ranking.

(4) Increment 4. This increment will include additional capability activities that can be supported by the cost sharing sponsor and Corps resources and will advance the project schedule at a faster pace than shown in the PMP. Increment must be performance based and integral with a study or project high outputs and consistent with ranking.

(5) Increments 5-7. Not used.

(6) Increment 8. This increment will include projects that are consistent with Administration policy but are unbudgetable due to the decision document not yet being cleared by the Administration.

(7) Increment 9. This increment will include unbudgetable projects that are inconsistent with Administration policy, such as environmental infrastructure in the Water Supply business line. The Federal funds for shore protection projects that require beach re-nourishment (not associated with Federal navigation projects) should be identified and included in this increment.

C-2-11. Ecosystem Ranking Criteria. The ranking criteria developed evaluate studies and projects against the parameters of readiness, timeliness, cost effectiveness, and performance. Seven

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performance components provide an indication of the significance of the resources being restored and will have a substantial bearing on how projects are ranked. The seven performance components and maximum scores are as follows:

Habitat Scarcity	25 points
Connectivity	25 points
Special Status Species	10 points
Hydrologic Character	20 points
Geomorphic Condition	20 points
Self-Sustaining	20 points
Plan Recognition	10 points

National Significance is defined as studies and projects receiving the top scores in Scarcity (25 points) and Connectivity (25 points) and at least the second score (5 points) Special Status Species and Plan Recognition. Regional Significance is defined as studies and projects receiving at least the second highest score in each of these four criteria. Information about the physical scale of the restoration, cost, phase, relation to other purposes for multipurpose projects, watershed status for studies, and status of cost-share agreements will also be used to arrive at a balanced budget recommendation that insures continued positive contributions to the Nation's resources. The criteria apply to individual line item-funded studies, projects, and separable elements.

C-2-12. Separable Elements. Separable elements that upon completion provide ecosystem restoration benefits even if the remainder of the project is not completed should have unique P-2 project names and unique P-2 project numbers. Separable elements are to be entered as separate line items in the budget request. Existing project names should be reviewed to ensure that the items identified as projects are in fact separable elements. In rare instances separating a large project not previously divided into separable elements may be warranted to more accurately report performance. If a separable element will be constructed in phases or stages, phase and stage designations should not be part of the project name. Instead the phase/stage indicator should be included in the project description column and the budget item justification column should be used to indicate status such as initiate stage 1 or complete stage 2 as appropriate.

C-2-13. Data Requirements.

a. The data elements to be included in P-2 or derived from data in P-2 are described in TABLE C-2-3 and an example of the excel sheet used to analyze the data provided is shown in Illustration C-2.1. A limited number of items will be required for the "Studies, Surveys and Inspection of Completed Works-Ecosystem Restoration" work category code in the Operations and Maintenance account. The CCS is 642 and the PWI is 081816. The operations and maintenance requirements for Everglades projects should follow the guidance in Annex III.

b. Many of the data elements in P-2 will be the same for all entries related to a single project or separable element. Items which may vary for each contract include Approp Abbrev, CW type of funds, increment, phase, phase status, phase completion, project completion, dates of agreements, and narrative justification. Phase completion refers to the completion of the phase for the study, project or separable element not for the contract. In construction, LY should ONLY be used to describe the last year of the final contract or other budget item for a project or separable element that will result in physical completion of the project or separable element. It should NOT be used to describe the completion of any other contract or budget item for the project or separable element. Federal budget request, Budget Item ID, Budget Item Justification and Dist, MSC ranks must be unique for each entry. The remaining entries will be the same but unique for each project or separable element. However, the program code and

name should be the same for each separable element.

c. Investigations account, Construction account and Operations and Maintenance account items will be ranked separately. Watershed and multipurpose Reconnaissance, Feasibility and PED phases will only be entered in the business line that is expected to be the primary purpose and not split among multiple business lines.

TABLE C-2-3

Ecosystem Restoration Study and Project Information

The data provided in this table will allow for ranking the ecosystem restoration projects to develop a budget consisting of cost effective projects that efficiently provide significant ecosystem restoration benefits. The data in this TABLE will be pulled from P-2 at the MSC and HQ levels. If the item required for this TABLE is not applicable, do not leave it blank (the exception is the ranking columns for higher organizational levels). Enter NA so that it is clear the absence of information is not an oversight. This information will be available for incorporation into a spreadsheet similar to the one in Illustration C-2.1. Every column must have an entry. For columns where data is not required as indicated by the code at the bottom of the spreadsheet in Illustration C-2.1, if the data is entered directly into P-2 then the cells should auto fill with NA. Otherwise enter NA as necessary. Additionally, for a P-2 Project Number with more than one budget item, many fields will auto fill for subsequent budget items.

If the spreadsheet is used and items are entered in the order listed below and the P-2 data entry rules are followed, it may be uploaded directly into P-2. Dates should be entered in YYYY-MM-DD format (2014-05-02), fiscal year should be entered as 4 digits (2014), all dollar and other numeric entries should be in thousands unless the data field definition specifically instructs otherwise.

Items funded in the MR&T account should follow the rules for the I, C, and O&M accounts as appropriate.

Every contract in the Construction account including comparable MR&T items is a separate line item. For continuing contracts there may be multiple entries.

The first 31 items are common elements that are required for all budget items in all accounts and can be found in the Glossary at the end of this EC. The remaining items are as follows:

32. AMOUNT NEXT CONTRACT = Required for all items in Construction. Provide the total amount of the next new contract. Enter NA if this line item is the last contract for project/separable element.

33. CONTINUING CONTRACT EARNINGS = Required for all continuing contracts in Construction including both "true" and "special" continuing contracts. Provide the PY earnings for all continuing contracts continuing from the previous year. This number will change as additional items are included in the budget request for an individual continuing contract. Enter NA if this line item is not a Continuing Contract.

34. CONTINUING CONTRACT VALUE = Required for all continuing contracts in Construction including both "true" and "special" continuing contracts. Enter the total value of the contract in thousands.

35. CONTINUING CONTRACT AMOUNT APPLIED THROUGH PY-1 = Required for all continuing contracts in Construction including both "true" and "special" continuing contracts. Enter the amount in thousands. This should be zero for a continuing contract initiating in FY14. Enter NA if this line item is not a Continuing Contract.

36. LAST YEAR BUDGETED = Required for items in the Investigation and Construction accounts. Enter the most recent Fiscal Year this study or project was included in the President's Budget (any phase).

37. LAST AMOUNT BUDGETED – Linked to 36 above.

38. LAST YEAR APPROPRIATED = Required for items in the Investigation and Construction accounts.

Enter the most recent Fiscal Year this study or project received an appropriation (any phase).

39. LAST AMOUNT APPROPRIATED = Enter the amount of funds (conference report amount) contained in the appropriation indicated in item 38 above for this study or project

40. TOTAL PROJECT COST = The Total Project Cost (TPC) includes the Federal and non-Federal cost of PED and Construction. The TPC also includes cost shared monitoring and adaptive management costs. During the Reconnaissance and Feasibility Phases use the estimate being developed for use in the appropriate report (needed for order of magnitude evaluations). Subsequently, the figure is to include all Federal and non-Federal costs for PED and Construction. The cost should be consistent with the fully funded cost in the J sheet.

41. BALANCE TO COMPLETE STUDY/PROJECT/SEPARABLE ELEMENT = The PY+1 fully funded balance to complete (BTC) study (if in reconnaissance or feasibility) or project or separable element. BTC should be consistent with the Total Project Cost of projects in PED and Construction.

42. LAST YEAR CONSTRUCTION FUNDS WILL BE REQUESTED = The last year that funds other than O&M will be requested. This includes authorized monitoring/adaptive management funded in the construction account. If the budget line item accelerates the phase this date may change from date in a previous budget item. The date entered for each of multiple entries for a project/separable element should be determined based on the assumption that no subsequent items for the project/separable element will be funded.

43. FCSA DATE = Required for items in the Investigation and Construction accounts. The actual or scheduled date of the FCSA. Enter the date - YYYY-MM-DD - e.g. 2005-03-30. If the budget request is to accelerate the reconnaissance phase, this date may change from the initial entry.

44. PED DATE = Required only for items in the Investigation and Construction accounts. The actual or scheduled date of the PED Agreement. Enter the date - YYYY-MM-DD - e.g. 2007-09-30. If the budget request is to accelerate phase, this date should change from the initial entry. For a new Reconnaissance NA may be appropriate.

45. PCA/PPA DATE = Required only for items in the Investigation and Construction accounts. The actual or scheduled date of the PCA/PPA. Enter the date - YYYY-MM-DD - e.g. 2010-11-01. If the budget request is to accelerate phase, this date should change from the initial entry. For Reconnaissance and new Feasibility studies NA may be appropriate.

46. ESTIMATED TOTAL PROJECT COST IN PCA/PPA = Enter the dollar amount in thousands in the original PCA/PPA for the project. This amount will not change over time.

47. MONITORING/ADAPTIVE MANAGEMENT = Required for PED and Construction phases and is to be based on either the Chief's Report or project authorization. Enter the number of years subsequent to physical completion of the project. Enter 0 if no monitoring or adaptive management is recommended or authorized and NA for other phases.

48. WATERSHED STUDY = Required only for Investigations, excluding PED. The study may produce a watershed or regional needs analysis (watershed assessment in accordance with Section 729) that identifies opportunities and impediments; a range of alternatives; or a regional or basin-wide strategy that identifies implementable actions for the future for some or all of the stakeholders within the watershed or region; or result in a feasibility report for authorization. A reconnaissance phase watershed assessment in accordance with Section 729 will be given the phase activity code WA. A feasibility level watershed

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assessment in accordance with Section 729 will be given the phase activity code WF. (A watershed study that does not meet the criteria for Section 729 will be a feasibility study accomplished in a watershed context and will be coded F and Yes in column 48.) The watershed assessment is independent of ranking criteria for the primary business line. Instead it is intended to be a unique evaluation tool that crosses business lines. The following criteria will be used:

- a. HUC –the study area is an 8-digit complete watershed.
- b. The study is multi-objective/multi-purpose.
- c. The result is expected to be a watershed management plan; implementation is not substantially dependent on Congressional authorization.

Studies identified as WA, WF , or F (when it is a study in a watershed context should be marked YES in Column 48.

49. WATERSHED DOC = If column 48 is YES; for WA or WF, provide narrative documentation for each of the three required points; for F respond to items a. and b. (400 characters) For a. enter the name and number of the watershed. For b. list some of the objectives/purposes. For c. briefly describe the expected contents/uses of the management plan.

50. FUNDING OF OTHER PURPOSES = Required for Construction phase. Displays the budget request amounts entered in other business lines for this project. System generated, no entry required.

51. PROJECT DESCRIPTION = Entry is required for all phases of the study/project. Entry needs to clearly and succinctly describe the project features and the intended outputs. Entries will be 125 words (625 characters) or less in total. Include information on type of project, list ecosystem features, and other pertinent information. Briefly describe phase or stage if a multi-stage implementation. If using dredged material, mention the navigation project source. Note the primary (1-3) habitat type(s) being restored using common names. Complete sentences are not required. The project description and work to be performed should be consistent with the J-sheets.

52. PROJECT DESCRIPTION (CONTD) = Because P-2 has a field limit of about 489 characters, if the project description (51. above) requires additional space use this field. (150 characters) other wise enter NA.

53. NARRATIVE JUSTIFICATION = In approximately 100 words (489 characters) or less provide additional support for the ranking of the study/project. Items a-c must be provided in this order or enter NA as appropriate. Use a., b, and c, to refer to the individual items. Do not repeat the project description or text used to justify significant criteria scores.

- a. Legal requirements [specify court orders or lawsuits, reasonable and prudent alternatives to avoid jeopardy, settlement agreements, etc.].
- b. If mitigation included – list type of habitat being mitigated and number of acres.
- c. For Inspection of Completed Works, list the projects to be inspected.

The following may be provided. Use the letters to denote which items have been included.

- d. Unresolved policy issues.

e. Other significant descriptors.

f. Any other special factors that should be considered in ranking the project, such as urban area.

54. TOTAL ECOSYSTEM PROJECT COST = Required for PED and Construction phases. This is the figure that will be used when asked the cost of the ecosystem restoration outputs. This entry is for the cost of ecosystem restoration elements only. Be sure to exclude the costs of recreation or environmental education features in this column. For a multipurpose project, this column would include the separable and joint costs of the ecosystem restoration features only. For a single purpose ecosystem restoration project without recreation features the entries in columns 40 and 54 should be identical. Cost in \$1000s.

55. ACRES = Required for PED and Construction phases. The area used for the Cost Effectiveness/Incremental Cost Analysis (CE/ICA) analyses is the quantity to enter. This does not change the need for a quality component in the CE/ICA analyses. For budgeting purposes the quality of the aquatic habitat restored should be reflected in the subsequent significance criteria and in the project description and narrative justification. Enter the actual number of acres in whole numbers. Convert stream miles used as the basis for the benefits analyzed in CE/ICA to acres using TABLE C-2-4 for the appropriate formulas. If a project includes a combination of actions the acres may be added but avoid double counting.

56. COST PER ACRE RESTORED (\$100's) = Required for PED and Construction phases. The total ecosystem restoration cost in column 54 divided by the number of acres in column 55 expressed in \$100s per acre. This will be a calculated field and entered by the system.

NOTE: Items 57 – 69 are required for all items funded in the Investigations and Construction accounts. Blank entries will equal zero. The scores for items 57, 59, 61, 63, 65, 67, and 69 (for projects in PED or Construction) will be totaled and serve as an indication of the significance of the proposed restoration. Only one option may be selected in each of these items. For example if the proposed project contributes to a national plan (10 points) as well as a state plan (2 points) only 10 points may be entered. The first score is the maximum points available for each item. The basis for the ranking assigned for Habitat Scarcity, Connectivity, Special Status Species, Hydrologic Character, Geomorphic Condition, and Plan Recognition must be documented and where required with a citation in the Documentation cell (e.g. Smith 1990) and the full citation must be provided with the district's submittal to the division. The term "regional" is defined as involving two or more states; a state and comparable entity in Canada or Mexico; a state and a Tribe; two Tribes, an area of a size comparable to the previous items, or an area covered by an activity that has significant Federal legal and multi-agency support even though entirely within one state such as a Joint Venture area identified under the North American Waterfowl Management Plan, rather than a smaller geographic area. Justification for the scores should relate to the project outputs in the project description or narrative justification.

57. HABITAT SCARCITY AND STATUS = This criterion addresses the scarcity of the type of habitat to be restored in the national and regional context. This criterion is based on historical losses, trend information and relative abundance of the habitat. All special aquatic sites as defined in the 404(b)(1) guidelines are nationally important and relatively scarce. This criterion is intended to identify specific habitat types with exceptional regional or national scarcity. It is not intended to address critical habitat of threatened or endangered species (address these under Special Status Species) or habitats located in priority regions of landscapes (address these under Plan Recognition). Scoring is as follows:

25 = Project will restore nationally scarce habitat that has experienced major historic losses as

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demonstrated by a Federal, regional, or state/Tribal report, or documented by peer-reviewed professional publications/societies. The report must refer to the specific habitat type and the region in which the project is located. This score may not be based on broad classifications of aquatic habitats such as wetlands that are recognized under programs such as the National Wetlands Inventory Status and Trends

Study as declining 18 = Regionally scarce and becoming scarcer as demonstrated by a Federal, regional, or state/Tribal report, or general scientific agreement as documented by professional publications/societies.

10 = Nationally scarce and important habitat as demonstrated by a Federal, regional, or state/Tribal report, or general scientific agreement as documented by professional publications/societies. This score may be applied to broad classifications of aquatic habitats such as wetlands that are recognized under programs such as the National Wetlands Inventory Status and Trends Study as declining.

5 = Project will restore other declining or scarce aquatic and/or related habitats (e.g. riparian non-wetland).

0 = Project will restore a habitat type that is abundant, stable at natural levels or improving beyond natural levels.

58. Document the basis for the score in column 57 in 200 characters. Examples: 90% of (type of habitat) lost in x (size of or name of region) area since yyyy (year) as documented in... Examples of reports might be North American Waterfowl Mgt Plan documents and NOAA's Essential Fish Habitat documents. Additional potential sources may be found in "Significance in Environmental Project Planning: Resource Document" IWR Report 96-R-7 at: <http://www.iwr.usace.army.mil/docs/iwrreports/96r07.pdf>. Do not provide species information as justification in this cell; provide that information under Special Status Species. If species are cited as the justification the score will be changed to zero. Failure to provide a specific citation may adversely affect the eventual project rank.

59. CONNECTIVITY = This criterion addresses the extent to which a project facilitates the movement of native species by contributing to the connection of other important habitat pockets within the ecosystem, region, watershed or migration corridor, or adds a critical component to an ecosystem and contributes to increased biodiversity. If a fish passage project involved multiple obstructions at more than one site, credit the overall project for the highest score applicable to the project features. Scoring is as follows:

25 = There are two options:

The project fully restores a critical direct physical connection between existing habitat areas within a corridor or larger landscape reducing population isolation, expanding home ranges, or providing access to areas supporting life requisites (e.g. linking feeding and spawning areas). To fit this category the restored habitat must be of the same type, or an appropriate type for the target organism affected. Examples would include restoring the connection between an estuary and the ocean, or two pockets of bottomland hardwood forest separated by drained agricultural land, or removing a dam to reconnect upstream and downstream habitat. The project provides critical life requisites (sites or habitats providing foraging, breeding or cover) for species that complete or expand the functionality of the system contributing to the stability of the species or population.

The project establishes a network of related interconnected habitat lined by the appropriate travel habitat. Example: connecting freshwater mussel populations through river restoration. List the connecting habitat type and community or organism connected.

18 = Project creates a nodal connection between existing habitat areas within a corridor (as in restoring a wetland along a waterfowl flyway) or larger landscape facilitating animal migration or flow of genetic material for a nationally or internationally recognized species. The project would not be physical adjacent to other habitat areas in the corridor but would be spaced such that it provides a critical resting/feeding or other link between two other habitat areas. Examples would be restoring a marsh resting area along a defined migration corridor for a specific species or group of species such as the sand hill and whooping cranes or the creation of horseshoe crab spawning habitat to provide foraging habitat supporting internationally migratory Redknots. Also apply this score to nature-like fishways (e.g. ramps and by-pass channels).

10 = Project restores suitability of an existing connection or corridor; or expands functional area(s) within a splintered migratory corridor or home range; or provides an important scarce habitat type that complements adjacent existing habitat types by providing one or more missing life cycle requisites for a number of species. For example, expanding or adding resting or foraging areas that improve the functionality or carrying capacity of the system. Apply this score to technical fishways (i.e. fish ladders).

5 = Project provides a large expansion to an existing habitat increasing the carrying capacity of the system without substantially increasing the habitat or species diversity.

0 = The project is an isolated unit or adds a relatively small increment to a much larger habitat. For example, a project that takes advantage of an opportunity to restore a portion of a drained field or adds five acres to a 500-acre wetland.

60. Document the basis for the score in column 59 in 200 characters; such as: connect x National and y state wildlife areas, connect 5 tracts totaling x acres. Include a list of the primary species used to justify score. Failure to provide documentation of the areas and species may adversely affect the eventual project rank.

61. SPECIAL STATUS SPECIES = The project must provide a significant contribution to some key life requisite within the potential range of a species to receive points in this category. The demonstrated presence or potential presence of a species of concern in the project area is not sufficient to justify a score above zero. Scoring is as follows:

10 = Project provides specific restoration measures formulated to complete or add to existing life requisites within the project's footprint or area of influence for Federally listed or candidate threatened or endangered species. This information must be documented in U.S. Fish and Wildlife Service/National Marine Fisheries Service Fish and Wildlife Coordination Act reports or correspondence and/or a Biological Assessment/Opinion as appropriate. This score is intended to identify projects that directly restore habitat for threatened or endangered species and requires a specific reference to the species in the documentation cell. Few projects will attain this rating.

5 = Project restores habitat for life requisites that complete or add to existing life requisites within the project's area of influence or footprint for species covered by international treaty, such as International Migratory Birds, or diadromous fish that are of special concern or have special significance. This rating would not include common or abundant migrants unless there is a specific concern about an individual species or species group that can be cited (such as listed on the American Bird Conservancy/Audubon Watch List or in correspondence from USFWS or state agencies). This scorer requires a specific reference to the species in the documentation cell.

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3 = Project provides habitat for life requisites that complete or add to existing life requisites within the project's area of influence or footprint for State listed or candidate species.

0 = None.

62. Document the basis for the score in column 61 in 200 characters by listing species or group for waterfowl and diadromous fish and life requisite met (e.g. – roseate tern/nesting habitat). Cite specific reports or dates of correspondence with USFWS/NMFS/state agency and provide full report citation or full correspondence to MSC in backup information. Cite a federal recovery plan if applicable. The species must have a demonstrated presence in the area or a strong probability of occupying the site after restoration. Failure to provide a specific citation may adversely affect the eventual project rank.

Regarding Hydrologic Character and Geomorphic Condition (63-66 below) since the goal of Corps ecosystem restoration projects is “to restore degraded ecosystem structure, function, and dynamic processes to a less degraded, more natural condition”; the project has in all probability been formulated with an implicit if not explicit target of achieving a more “natural” condition. Reference sites, historic stream gage data, the physical parameters required to restore and sustain the desired native habitat may be a means to define “natural” for each project.

63. HYDROLOGIC CHARACTER: This criterion recognizes the importance of appropriate hydrology in maintaining the ecological functions of aquatic, wetland, and riparian systems. The hydrologic character refers to the timing, magnitude, duration, frequency, and rates of change of the flows, water levels, and surface/subsurface exchange processes. Projects that restore and sustain the natural hydrologic “signature” of a system are more likely to provide sustainable environmental services. Scoring is as follows:

20= Project fully restores the natural hydrology to the system or site, as demonstrated by appropriate analyses and/or data.

15 = Project partially restores the natural hydrology to the system or site, and the restored hydrologic variables are demonstrated through appropriate analyses to overcome the factors causing impacts. This level of credit also applies to projects where measures have been identified and justified to address critical and unavoidable needs. Examples include pulsed flooding that triggers critical life history behavior or flows of materials and nutrients between channel and floodplain but that doesn't replicate fully normative magnitude, duration, frequency, etc. and full ecosystem benefits obtaining thereof.

10 = Hydrologic impairment does not exist at the site OR the hydrology is restored to the best attainable condition, but remains a limiting factor in ecosystem health.

5 = Some elements of the system or site hydrology are restored but most conditions necessary for a more natural hydrology are not attained.

0 = The project does not address hydrologic restoration, although hydrologic impairments exist on the system OR critical goals are not attained.

64. Document the basis for the score in column 63 in 300 characters discussing which aspects restored and basis for the target condition. Reference hydrologic attributes. Water quality is not an appropriation justification for a score. Be sure to link proposed actions to hydrologic outcomes. Include quantification of the change if possible, especially for projects in PED and Construction. Tie benefits to key thresholds or a reference system.

65. **GEOMORPHIC CONDITION:** This criterion relates to the establishment of suitable structure and physical processes for successful restoration. The scale, form, and landscape position of the system, along with key processes such as erosion, sediment transport and deposition play a critical role in defining ecosystem health and resilience and must be considered in project development. The term “system” in the following criteria would apply to large-scale projects such as Everglades or projects with a substantial geomorphic impact on distinct areas adjacent to the site. Other projects will be evaluated at the site level. Scoring is as follows:

20= Project fully restores the natural or attainable geomorphic processes and form to the system or site, including the appropriate diversity and dynamics, as demonstrated by suitable analyses and/or data.

15 = Project restores the key geomorphic processes to the system or site, and the system is expected to recover full ecological function within an appropriate timeframe. This level of credit also applies to projects where measures have been identified and justified to address critical and unavoidable needs. Examples include sediment amendments or large woody debris insertion below dams.

10 = Geomorphic impairment does not exist at the site OR the geomorphology is restored to the best attainable condition, but remains a limiting factor in ecosystem health.

5 = The form of the project location or system is restored, but some key system processes remain degraded or non-functional. (An example might be restoration of an oxbow on a stream that is not allowed to meander naturally).

0 = The project does not address geomorphic restoration, although geomorphic impairments exist on the system OR critical goals are not attained.

66. Document the basis for the score in column 65 in 300 characters discussing which aspects restored and basis for the target condition. Link project actions to pertinent geomorphic outcomes. Reference key attributes and include quantification of the change especially for PED and Construction. Tie benefits to key thresholds or a reference system.

67. **PLAN RECOGNITION** = This criterion recognizes Corp ecosystem restoration projects that contribute to watershed or basin plans as emphasized in the “Civil Works Strategic Plan”. This criterion ranks the importance of the plan that the Corps project supports. Recovery plans may not be used as a basis for a score. Scoring is as follows:

10 = A Corps study or project that contributes to a multi-agency comprehensive watershed or basin plan developed in support of Federal priorities as demonstrated in laws or specifically authorized programs such as; Everglades, CALFED, Chesapeake Bay plan, etc.

5 = A Corps study or project that contributes to a multi-agency regional watershed or basin plan. Examples of this would include plans developed by groups such as the Delaware Basin Commission, or plans pertaining to Joint Venture Areas under the National Waterfowl Management Plan.

2 = A Corps study or project that contributes to a State/Tribal or local watershed or basin plan.

0 = A Corps project that does not contribute to any collaborative comprehensive or watershed or basin plan.

68. Document the basis for the score in 67 in 200 characters. Include the name and date of plan used as the basis of the score.

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69. SELF-SUSTAINING = This requirement applies to only the PED and Construction phases. Enter NA for Reconnaissance and Feasibility phases. The ideal goal of most restoration is a self-sustaining ecosystem consisting of natural processes. The cost of the average annual O&M per acre (using the number of acres in column 42) will be used as an indicator of the level of human intervention needed to maintain the restoration outcome. The most recent cost estimates or the actual costs of O&M (if greater than the latest estimate) will be used in this calculation. Scoring is as follows:

20 = Low relative O&M costs. The average annual O&M cost per acre must be \$15.00 or less.

10 = Medium relative O&M costs. The average annual O&M cost per acre is greater than \$15.00 but less than \$100.00.

0 = High relative O&M costs. The average annual O&M cost per acre equals or exceeds \$100.00.

70. TOTAL SCORE = The sum of the scores entered in columns 57, 59, 61, 63, 65, 67 and 69. P-2 will auto fill. Maximum is 130.

71. NATIONALLY SIGNIFICANT = If the study/project received the highest score possible in the Scarcity, and Connectivity, and at least a 5 in Special Status Species, and Plan Recognition then P-2 will enter a "Y" for yes in this column. If this criterion is not met an "N" for no will be entered.

72. REGIONALLY SIGNIFICANT – If the study/project received at least the second highest score in Scarcity, Connectivity, Special Status Species and Plan recognition columns, then P-2 will enter a "Y" for yes in this column. If this criterion is not met an "N" for no will be entered.

73. NUMBER OF INSPECTIONS = This item is to provide for funds to inspect completed ecosystem restoration projects and ecosystem restoration features of multi-purpose projects. These funds will be in the O&M account. The work category code is 60422. See sub-annex III-4 "Work Category Codes and Definitions – O&M Operations Accounts" in Annex III, for the full definition of "Inspections of Completed Work, Ecosystem Restoration. Districts will enter amounts in P-2 in the same manner used for Inspection of Completed Works for Flood Damage Reduction. Enter the number of ecosystem restoration projects or features that will be inspected with the amount requested. This category is not for inspection of features completed as mitigation. The CCS is 642. The P-2 Program Number is 081816.

74. BUDGET ITEM JUSTIFICATION. In 75 words (375 characters) or less state proposed use of the line item amount (be as specific as possible) and what this amount accomplishes (what are we getting for this amount of \$). Key point is to be able to distinguish from other entries for the same project or other projects. For example: initiate or complete a study, contract, or project; reduce the study time x months; or contract work more efficiently, or link to other work in watershed more efficiently. This is where the phase or stage of a project or separable element should be mentioned; such as initiate stage 2 of 3 or phase 3 of 3. Do not use the same justification for multiple entries for a study/project.

75. EXTERNAL PEER REVIEW = Enter the amount (\$1,000) that is included in the Budget Request - Fed that is required to fund the Federal cost of external peer review panels in accordance to WRDA 2007, Section 2034 (P.L. 110-114). Enter zero if there are no Federal funds for peer review panels.

TABLE C-2-4

Formulas for Conversion of Stream Miles to Acres

Action	Formula	Example Calculation
Direct alterations of habitat in a channel (e.g. constructed riffle pool sequences, J-hooks)	Report the bank to bank width multiplied by the length of the reach within which the restoration measures are located.	
Dam removal	Measure the length of the impoundment created by the dam under normal flow conditions. Report the area represented by the length of the impoundment under normal flow conditions multiplied by the width of the river immediately upstream of the impoundment. <u>Also</u> , report the length of the <u>mainstem</u> river up to the next fish passage impediment multiplied by the width used above and multiplied by 0.25. (The 0.25 multiplier represents the fact that fish are restored to the reach, but that fish only represent one component of the habitat.)	[0.8 mi impoundment length X 100 ft channel width] + [10 mi reach length X 100 ft channel width X 0.25 habitat factor] = 40 acres
Fish passage projects other than complete dam removal	Report the length of the <u>mainstem</u> river up to the next fish passage impediment multiplied by the width described under dam removal above and by 0.25 and by the efficiency of the fish passage. In the absence of project specific information on fish passage efficiency, use 0.9 for nature-like bypass channels, 0.8 for rock ramp, and 0.6 for fish ladders for the efficiency multiplier.	10 mi reach length X 100 ft channel width X 0.25 habitat factor X 0.6 efficiency factor = 18 acres

ILLUSTRATION C-2.1

Sample Spread Sheet
Ecosystem Ranking Criteria and Additional Data



Illustration C-2.1

SUB-APPENDIX C-3

Environment-Stewardship

C-3-1. Introduction. The Corps is responsible for the management of about 500 existing water resources projects located in 43 states. Each project's construction and operation is authorized under unique authorities for single or multiple purposes such as navigation, flood control, hydropower, fish and wildlife, recreation and water supply. Included in those authorized projects and entrusted to Corps stewardship are streams, rivers, lakes, and their adjacent lands - totaling nearly 12 million acres and nearly 56,000 shoreline miles. In operating and maintaining its multi-purpose projects, the Corps integrates the management of the existing diverse natural resources (such as fish, wildlife, forests, grasslands, wetlands, soil, air, water) and cultural resources, with the provision of recreation opportunities. Guidance for accomplishing stewardship activities may be found in ER and EP 1130-2-540. Guidance for the master planning of land usage is found in ER and EP 1130-2-550. As a matter of law and good environmental practice, the Corps executes stewardship activities on project lands and waters to sustain natural and cultural resources and takes action to minimize adverse environmental impacts. The Environment-Stewardship vision is to provide healthy project lands and waters for future generations.

C-3-2. Purpose. The Corps Environment-Stewardship (E-S) mission is to manage, conserve and/or protect the natural and cultural resources at Corps operating water resources projects, consistent with: project authorities, ecosystem sustainability approaches, USACE Environmental Operating Principles, environmental laws and regulations, and the needs of present and future generations. E-S strives to promote environmental sustainability while providing access to natural resources for public use.

C-3-3. Goals, Objectives and Performance Measures.

a. The Environment-Stewardship program seeks to fulfill the Civil Works (CW) Goal 3 to deliver innovative, resilient, sustainable solutions to the armed forces and the Nation. The CW Strategic Plan for 2011-2015 states that significant forces that shaped this Strategic Plan include a greater recognition of public safety, the natural environment, ecosystem restoration, and collaborative partnerships in the Civil Works business. The Environment-Stewardship program supports Objective 2.1 "Help facilitate commercial navigation by providing safe, reliable, highly cost-effective, and environmentally sustainable waterborne transportation systems" by insuring the natural environment is protected. Also the Environment-Stewardship program supports CW Strategic Goal 3 to restore degraded aquatic resources and prevent future environmental losses. Specific stewardship objectives that support the Civil Works Strategic Plan and related performance measures are found in Table C-3-1.

b. Our ability to accomplish the Environment-Stewardship objectives depends heavily on certain key factors that are the focus of the FY14 budget-linked objectives and performance measure outputs as presented in TABLE C-3-2. Two key factors in accomplishing E-S objectives are the requirement for basic information about the natural resources that exist on Corps operating projects and an evaluation of the condition and significance of those resources. Assessment of natural resources should be at both the project and the watershed ecosystem level. Valuable resources such as threatened and endangered species and their habitats, as well as cultural resources, must be managed effectively and efficiently, in compliance with applicable laws and mandates, such as the National Environmental Policy Act. Project Master Plans, which guide the manager in making informed and wise decisions on project land use proposals, must be up-to-date and in accordance with ER and EP 1130-2-550. Master Plans require designation of environmentally sensitive areas and meaningful natural resources management objectives. Performance measures are used to build a highly effective and efficient budget, and to give priority to work which best accomplishes E-S objectives and results.

TABLE C-3-1 Environment-Stewardship Objectives and Performance Measures	
Environment-Stewardship Objectives	Performance Measure
Ensure healthy and sustainable lands and waters associated with natural resources on Corps lands held in public trust, to support multiple purposes.	Percent of healthy and sustainable acres on Corps fee-owned or administered property.
Protect, preserve, and restore significant ecological resources in accordance with Master Plans.	Percent of projects requiring Master Plans in accordance with current regulations.
Ensure that the operation of all Civil Works facilities and management of associated lands complies with the environmental requirements of all relevant Federal natural resource laws.	Percent of Corps operating projects meeting Endangered Species Act Requirements. Percent of Corps operating projects meeting Federally mandated cultural resources responsibilities.
Meet the mitigation requirements of authorizing legislation or applicable Corps decision document.	Corps administered mitigation projects that meet the requirements in the authorizing legislation or relevant Corps of Engineers decision document: Percent of completed projects that have successfully met mitigation goals.

c. Full descriptions of the FY14 Environment-Stewardship budget-linked performance measures are provided in ILLUSTRATIONS C-3.1 to C-3.5.

C-3-4. Environment-Stewardship Program Development – General Instructions.

a. The E-S budget will be performance-based with Headquarters oversight; it is built by the developing incrementally justified budget packages for prudent work. E-S work is categorized by work category codes (See Annex III of this EC, Sub-annex III-4), must be realistically accomplished during the budget year and provides quantifiable, efficient, and increased outputs toward the current E-S performance measures. Each budget package will provide quantified outputs toward a single primary performance measure that reflects the primary reason why the budget package is justified. So that stand-alone decisions may be made, each proposed budget package will consider and include all the costs (i.e. of the primary, as well as supporting, activities) that are necessary to accomplish the proposed work and result in performance output. The E-S Business Line Manager reserves the right to adjust budget packages in the final submission to best serve the overall stewardship program nationwide.

TABLE C-3-2	
PY Environment-Stewardship Budget-Linked Objectives and Performance Measures	
Budget-Linked Objectives	Performance Measure
Perform basic stewardship functions to ensure healthy and sustainable natural resources conditions.	Basic Stewardship – Percent of total Corps fee-owned acres that are classified as in healthy and sustainable condition.
Ensure compliance with natural resources environmental mandates and legal requirements	Mitigation Compliance - Percent of total Corps administered mitigation acres, or percent of total required pounds/or individuals of mitigation fish released, that meet the requirements in the authorizing legislation or applicable Corps authorization decision documents.
	Endangered Species Protection - Percent of Corps operating projects with federally listed species for which the Corps is meeting Endangered Species Act requirements or responsibilities.
Protect and preserve cultural resources	Cultural Resources Management - Percent of Corps operating projects that meet federally mandated cultural resources management responsibilities.
Balancing public uses of natural resources	Master Plan Completion - Percent of total projects requiring Master Plans for which the Master Plans are completed in accordance with ER 1130-2-550.

b. Limitations:

(1) In accordance with the guidance: “USACE Policy for Collection of Civil Works Appropriation Reimbursement” (effective 1 Oct 08), funds collected from the sale of commodities (e.g. timber, crops, sand, gravel, quarry) and from settlement of court cases (e.g. trespassing, illegal timber cutting) will be accumulated, and CECW-I and CERM will issue work allowances and funding authorization from the accumulated funds in the applicable appropriation to finance the cost of the sales activity and other natural resources management activities. Therefore, do not include in the Stewardship budget those commodity sales costs or other natural resources management activity costs that are expected to be funded by the proceeds from the sale of project commodities. This limitation applies to all performance measure budget packages.

(2) Sustainability packages related to greenhouse gas emission reduction, energy reduction or water conservation should ONLY be those activities supporting ES facilities such as fish hatcheries, pumps for wetlands maintenance, or buildings restricted to Environmental Stewardship Activities. All other sustainability packages shall be budgeted under the appropriate business line for which the facility supports.

(3) ALL budget packages for the Columbia River Fish Mitigation, Willamette River Biological Opinion and the Missouri River Fish and Wildlife Recovery Programs must be submitted under the E-S Endangered Species Performance Measure only for the FY 14 budget.

Including these work packages under any other E-S measure or under any other business line is prohibited.

- c. Joint Activities – Joint Costs. See guidance provided in Annex III, Sub-Annex III-2.
- d. Environment-Stewardship Budget Evaluation System (E-S BEST) and P2.

(1) E-S BEST is a web-based tool developed for field use in calculating E-S performance measure outputs for stewardship O&M activities and budget packages. E-S BEST will be used in developing the FY14 E-S budget. E-S BEST will use data provided by the project to calculate a value for each budget package's performance measure output. These values will be used in ranking E-S budget packages at the District, MSC, and HQ levels. For the FY14 budget development, all budget and performance information entered in E-S BEST for PY can be pre-populated into the FY14 process unless the users choose not to. Most projects should take the advantage of retrieving data from the previous year in E-S BEST and review/update the existing budget packages in E-S BEST instead of creating new ones. Work category codes used in budget packages should also be confirmed to assure work is accurately characterized. See Annex III, Sub-Annex III-4 of this EC for current codes. NOTE: Data pulled from OMBIL into ES-BEST for FY14 is fixed and cannot be changed; requests for exception to this policy must be forwarded to HQs through MSCs.

(2) Performance measure information must be updated in E-S BEST by the date shown in TABLE 2 in the MAIN part of this EC. Data will be extracted from E-S BEST and merged with budget data extracted from P2 Primavera Project Manager in OFA on a nightly basis. When entering budget information into P2 Primavera Project Manager, corresponding BEST_ID's must be entered for all budget packages to ensure the proper performance measures can be matched in OFA. For most projects, the preliminary budget information and the matching BEST_ID's can be carried over from previous year's data entry in P2 or should be taken from the existing E-S BEST database. For projects that start in FY14, budget development must be done in E-S BEST—but be sure to provide the budget information to your P2 correspondent for data entry in P2 before the deadlines set by the district/MS (must do this to get the BEST_ID if this is a new package for FY14). This allows districts and MSCs to review and evaluate their budgets comprehensively, across business lines. For projects that enter their budget directly into P2 based upon PY E-S BEST budget package information--make sure to revise your E-S BEST budget information accordingly. For either option, you must have the matching BEST_ID when entering budget information in P2. The information needed to provide your P2 correspondents for data entry is available on the P2 summary page in E-S BEST. See Illustration C-3.6 of this Appendix for the FY14 Environment-Stewardship Budget Development Workflow diagram.

(3) For the FY14 budget, performance measure output data from E-S BEST will be loaded to OFA every night once the projects have submitted data input in E-S BEST and the budget items have been created in P2-OFA. As the budget review continues, additional E-S budget review data and detailed roll-up spreadsheets will be available to the MSC's and may be accessed through the NRM Gateway at <http://corpslakes.usace.army.mil/employees/esbest/esbest.html>.

(4) To maintain the integrity of the E-S Budget development process, the structure of stewardship increments in E-S BEST is fundamentally the same as the PY process. However, to achieve consistency with the overall O&M program structure and to meet the requirement for entering budget information into P2, the E-S BEST budget increments should be matched in P2 according to TABLE C-3-3. That is, the E-S BEST Minimal program increment will be entered in P2 as increment 1; E-S BEST "Critical" Sustaining increment budget packages will be entered into P2 as increment 3; E-S BEST "Critical" Sustaining increment packages will be entered in P2 as increment 4; and all "Non-Critical" Sustaining increment packages (to sustain performance and to support/meet targets -- these packages will be given a special identifier in E-S BEST) and all capability packages in E-S BEST will be entered in P2 as

increment 5. There are no changes on the BEST_ID's. The BEST_ID numbers should still be entered into P2 as the way they are in E-S BEST.

TABLE C-3-3	
Budget Increments Reference Table between E-S BEST and P2	
E-S BEST Increment	P2 Increment
Minimal – highest priority critical, time-sensitive, least-cost activities to meet the minimum legal mandates, environmental requirements, to prevent the loss of significant natural and cultural resources, and to meet minimum project operating and safety requirements of the budget year.	Increment 1 - critical routine and critical non-routine activities.
Not applicable in E-S BEST.	Increment 2 - DO NOT BUILD/ OR USE Note: Include both critical routine and critical non-routine work in P2 Increment 1.
“Critical” routine and non-routine – high priority, additional critical time-sensitive, least-cost type work that is above the minimum.	Increment 3 - critical--both routine and non-routine—to sustain expected future benefits of project and support/meet the target level output/service.
“Critical” routine and non-routine above Increment 3 representing work not as high priority as Increments 1 and 3.	Increment 4 - all remaining critical—both routine and non-routine—to sustain expected future benefits of project and support/meet the target level output/service; added costs above total of Increments 1 & 3.
“Non-Critical” Capability – sustain expected future benefits and recommended to meet targeted performance levels; enable greater levels of performance in future years, expected high return on investment.	Increment 5 (capability) work recommended to meet target performance level; work to enable greater levels of performance in future years –exceeding performance targets; additional costs above Increment 4.

e. Well-Written Budget Package Descriptions and Funding Justifications. In this performance based budget, every E-S budget package must relate to an increase in program performance or results. These linkages must be clear to all levels of reviews, both internal and external to the Corps (e.g., OMB or Congress). Care should be taken to write all budget package descriptions and justifications clearly and concisely so that the reader can understand and appreciate the work for which funds are being requested. Well-written justifications are essential to convince reviewers who are not familiar with your project, your work or your needs. Quantification of needs within ES-BEST description field is limited to 489 characters, so statement of quantifiable needs is essential to a defensible budget, e.g. "This \$750K provides for repair of 10 miles of boundary, inspection of 800 dock permits, brush clearing/fire prevention of 50 acres, and herbicide control of 15 acres of kudzu. These are absolutely critical O&M requirements, without which serious degradation of the environment will occur," (less than 300 characters). Anything over 489 characters in length in the description field gets truncated in OFA; OFA is the primary means of viewing and reviewing packages at HQUSACE.

f. Each budget package will be assigned to one of the E-S incremental funding categories based upon the performance measure output criteria and ranking factors specified for each increment. These

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criteria and ranking factors are described in the paragraphs that follow. Budget packages assigned in the described increments will be used to develop the HQ proposed CW "Ceiling", "Recommended" and "Capability" programs.

g. The E-S program provides significant compliance and management support to other Corps major infrastructure programs through managing programs under the Endangered Species Act; curating artifacts removed during construction and mitigating for adverse impacts of the project construction. To better inform higher authorities and the public on benefits provided by E-S, Districts will be responsible for linking packages in ES BEST to the primary business supported by the package. Examples are (1) fish passages which supports hydropower by minimizing impacts to salmon or (2) curation cost for storage which supports flood risk management by meeting compliance for artifacts removed during construction. At multipurpose projects, the primary infrastructure business line should be selected. For example, mitigation for a large navigation project would select navigation even though recreation and stewardship may occur at the project location, the mitigation was authorized because of the impact of the navigation.

C-3-5. Budget Increments for Environment-Stewardship. Reference the definitions and guidance concerning O&M program Increments in the Project Operations and Maintenance Annex III, Sub-Annex III-2 of this EC.

a. The E-S budget increments are generally aligned with the overall O&M increment structure. However, the utility of Increment 2 as described in the O&M structure is not very meaningful for the E-S program. Therefore, a separate Increment 2 for E-S (that corresponds with the O&M increment descriptions) will not be built. Those critical, time-sensitive, minimal program level budget packages (for both routine and non-routine activities) will be combined into one increment for consideration in building the minimal E-S program.

b. The minimal E-S program is defined as the E-S portion of the MSC minimal program. The total amount of the minimal E-S program must be assigned to Increment 1 in P2 and must be within the MSC minimal program limit. The combined O&M business line increments 1 & 2 will be evaluated based on priority and performance to form the overall MSC O&M minimum program. MSC E-S Business Line Managers must work with other Business Line Managers to build the MSC overall O&M budget. **Because the limitations on budget amounts are by MSC and not business lines, the MSC may budget more or less under ES than historic averages.**

c. E-S increments are defined by the type of work proposed in each, by the outputs toward current E-S performance measures (TABLE C-3-2) as assessed by performance measure output criteria, and by the priority work contained in each increment, as assessed through ranking and risk factors. Relative risk index matrix scores are determined in E-S BEST, and for each increment of each performance measure a relative risk index matrix score is indicated as a recommendation, i.e. if the score is "X" it should fall in this increment (see paragraph C-3-7 for Risk Assessment details). Prioritization based upon risk ranking is not mandatory for FY14; however, MSCs should consider risk scores when ranking packages overall. Each increment will include budget packages that must provide justified and quantifiable outputs toward one or more of the current performance measures. All five performance measures apply through each increment; however, the performance measure output criteria and ranking factors may vary. These are described specifically in paragraph C-3-6. General descriptions of each of the E-S Increments follow in the paragraphs below.

(1) Increment 1 - Minimal. Each MSC will build an E-S minimal program budget that is based upon performance measure outputs and that includes the least amount of funding necessary to accomplish only those critical and time-sensitive (must be performed in FY14) project work efforts that are necessary to meet the minimum legal mandates, environmental requirements, to prevent the loss of significant natural and cultural resources, and to meet minimum project operating and safety

requirements of the budget year. All work outside the minimal program will be competed based on current program priorities and guidance from higher level authority. The minimal Increment should provide the greatest benefit for the investment, based on performance measure and efficiency outputs, and should support FY14 performance targets. Work and funding included in this Increment contribute to the development of the HQ CW Ceiling program for the budget year. Minimal increment work packages will be assigned to Increment 1 in P2.

(2) Increment 2 – NOT APPLICABLE – DO NOT USE.

(3) Increment 3 - “Critical” routine and non-routine. This increment is the next above the minimal program and the first of three increments used to assign sustaining program budget packages. Sustaining program activities are generally defined as “state of the practice” and needed to sustain the expected future benefits. In most cases activities will support continuing the level of service that customers, stakeholders, and others have come to expect and/or depend-on for sustaining public safety and for economic, environmental and social benefits. ‘Normalized’ means that Congressional adds/supplements after budget submission are not included. Increment 3 incorporates only those additional “critical”, time-sensitive, least-cost activities that meet the description and work type criteria of Increment 1 (minimal program), but are considered less priority. High priority budget packages in this increment will receive a special identifier in E-S BEST to distinguish them among all “critical” sustaining type packages. Budget packages included in this Increment must be performance based and provide quantified and sustaining or increased output (in addition to the minimal increment) toward one or more of the E-S performance measures. This program increment will be prioritized for relative risk, for effectiveness and efficiency in accomplishing the performance objectives and outputs, and will realistically reflect work that can be accomplished or reflect necessary funds that can be obligated in the budget year, and as applicable, reflect realistic financing capability on the part of non-Federal sponsors. As dictated by fiscal constraints and justified by efficient performance outputs , budget packages of this increment will be evaluated in developing the HQ CW “Target” and “Recommended” level programs for the budget year. Budget packages in the E-S BEST “Critical” Sustaining Increment will be assigned to Increment 3 in P2.

(4) Increment 4 - “Critical” routine and non-routine above increment 3. This increment is the second of three used to assign the sustaining program budget packages and next above Increment 3. Sustaining program activities are generally defined as “state of the practice” and are needed to sustain the expected future benefits. In most cases these activities will support a continuing level of service that customers, stakeholders, and others have come to expect and/or depend on for sustaining public safety and economic, environmental and social benefits. This increment is to include all remaining “critical”, time-sensitive, least-cost activities that meet the description and work type criteria of Increment 1 (minimal program), but that are not accommodated in either Increments 1 or 3. Budget packages will receive a special identifier in E-S BEST to distinguish them within all “critical” sustaining activities. Budget packages must be performance based and provide quantified and increased output toward one or more of the E-S performance measures. Budget packages will be prioritized for relative risk, effectiveness and efficiency in accomplishing the performance objectives and outputs, and will realistically reflect work that can be accomplished or reflect necessary funds that can be obligated in the budget year, and as applicable, reflect realistic financing capability on the part of non-Federal sponsors. As fiscal constraints dictate and efficient performance outputs justify, only the highly efficient budget packages of this increment will be evaluated in developing the HQ CW “Ceiling” and “Recommend” level programs for the budget year. Budget packages in the E-S BEST “Critical” Sustaining increment have costs that are in addition to Increments 1 and 3 will be assigned to Increment 4 in P2.

d. Increment 5 - “Non–Critical” Capability. This increment is the last of three used to assign sustaining program budget packages, and it will also include all capability program budget packages. Sustaining program activities are generally defined as “state of the practice” and needed to sustain the expected future benefits. In most cases activities will support continuing the level of service that

customers, stakeholders, and others have come to expect and/or depend-on for sustaining public safety and economic, environmental and social benefit. Capability activities are defined as those expected to have a high return on investment that enable greater levels of performance in future years. As priority, Increment 5 will include those “non-critical,” low risk, sustaining packages that directly support the achievement of targeted levels of performance, through prudent, realistic, and efficient operation, management and maintenance of project natural and cultural resources. In addition, and of less priority, this increment shall include capability/enhanced program budget packages which have a high expected return on investment that enable greater levels of performance in future years. Special identifiers will be assigned in E-S BEST to distinguish “Non-Critical” Sustaining from Capability/enhanced level packages. Budget packages in this increment will be evaluated in developing the HQ CW “Recommended” and “Capability” Programs for the budget year and will be assigned to Increment 5 in P2.

C-3-6. Performance Measure Output Criteria and Ranking Factors by Increment. All five E-S performance measures apply through each increment; however, the performance measure output criteria and associated ranking factors for budget packages may vary. Below, the overall outputs to be achieved are described for each performance measure, followed by the more specific performance output criteria and budget package ranking factors that are applicable in each E-S budget Increment. Budget packages in any increment must meet one or more of the performance output criteria for that increment. It is not necessary however to build or include budget packages for every performance measure in each increment. Build and include only those that are applicable to the project. Each budget package will be developed and assigned in E-S BEST to a single E-S performance measure, and in a single appropriate E-S increment in accordance with the following:

a. Basic Stewardship. Budget packages in this performance measure are for operations, management and maintenance requirements to meet Corps responsibilities pursuant to the National Environmental Policy Act (P.L. 91-190), Section 101, which establishes the continuing obligation of Federal government to fulfill its responsibilities as trustee for the environment. The performance of these activities will be measured each year through inventories and condition assessment to determine progress in acres through the Healthy and Sustainable Land and Waters performance measure. Managers will be required to annually enter progress of condition assessments of Sustainable Lands by October 30th into the Operations Management Business Information Link (OMBIL).

(1) Basic Stewardship Increment 1 – Minimal – is for critical, time-sensitive (must be performed in the budget year) and efficient stewardship activities.

(a) Performance Output Criteria. Include budget packages necessary to accomplish essential routine and/or basic stewardship functions for the protection of project natural resources on Corps fee-owned acreage including other Corps administered lands and protect these lands **and** waters against encroachments and imminent loss of significant natural resources (including soils, vegetation, and animal species) due to erosion, wildfire, pest outbreaks, trespass, or human activities and/or environmentally induced events. Include activities such as: minimal boundary monitoring/surveillance, essential evaluation of and response to land use requests such as road or utility right-of way requests by non-Corps entities, compensation requirements resulting from routine real estate out grants and routine O&M actions, fire/pest prevention, timber theft monitoring and fish and wildlife sustainability practices such as counts, evaluation and/or monitoring. Basic Stewardship fish practices are those required in authorizing legislation or approved decision documents to provide safe and efficient passage, collection, and/or transportation of adult and/or juvenile fish at multi-purpose Corps facilities, and the word “mitigation” is NOT included with them in said documents. These practices could include operation of fish passage facilities, water quality monitoring as required for fish health and safety, and transportation of fish). DO NOT include the costs of Mitigation or ESA compliance activities related to fish; instead, use the Mitigation Compliance or Endangered Species Protection performance measures. All fish passage or habitat recovery related to the compliance with the Missouri River Biological Opinion, the Federal

Columbia River Power System Biological Opinion or the Willamette River Biological Opinion shall be budgeted under the Endangered Species Performance Measure. Basic Stewardship also includes the Shoreline Management Program, but shall exclude packages that receive funding through other sources such as administrative fees collected at the project.

(b) Ranking Factors. Priority should be given to budget packages that are necessary in the budget year to meet legal and regulatory requisites of the National Environmental Policy Act or other federally legislated stewardship directives, and/or have a relative risk index matrix score of 1. Packages must maximize efficiency in resources or acres managed and maintained. Packages that ensure the most cost effective and efficient management of Shoreline Use Permits and/or Real Estate out-grants should be included, as well as packages which directly control, eradicate or prevent the introduction of invasive species populations, and those that directly benefit significant species (species not otherwise protected by legislated mitigation or ESA measures).

(2) Basic Stewardship Increment 3 – “Critical” routine and non-routine above the minimum program - is for above the minimal program, “critical” healthy and sustainable lands and waters management operations and maintenance activities that are necessary in the budget year. Budget packages in this increment are to sustain expected future benefits and levels of service.

(a) Performance Output Criteria. Include budget packages that meet the same output criteria listed for the minimal increment of this measure.

(b) Ranking Factors: Priority should be given to budget packages that respond to same ranking factors as in the minimal increment of this measure, and those packages with a relative risk index matrix score of 2.

(3) Basic Stewardship Increment 4 - “Critical” routine and non-routine, above Increments 1 and 3 that are remaining “critical” budget packages in support of healthy and sustainable lands and waters management, for operations and maintenance activities that are necessary in the budget year. Budget packages in this increment are those packages which are not accommodated in Increments 1 or 3 due to increment dollar limits. Work in this increment is needed to sustain expected future benefits and levels of service while lowering risk.

(a) Performance Output Criteria. Include budget packages: that meet the same output criteria listed for the minimal increment of this measure.

(b) Ranking Factors: Priority should be given to budget packages: that respond to same ranking factors as in the minimal increment of this measure, and those packages with a relative risk index matrix score of 3.

(4) Basic Stewardship Increment 5 – “Non-Critical” Capability - is for above Increment 4 program work. It includes two types of budget packages that will be distinguished by special identifiers given in E-S BEST. The first identifier includes “non-critical” sustaining budget packages (i.e. not critical, but recommended to be done in FY14) for healthy and sustainable lands and waters operations and maintenance activities. Such budget packages will result in the prudent and recommended operations, management and maintenance of project natural resources that prevent decline in resource condition or safety, or move those that resources toward a healthy and sustainable condition. Budget packages are to sustain expected future benefits of and levels of service for healthy and sustainable lands and waters and reduce risk. The second identifier includes capability/enhanced level budget packages for work that is beyond mandates or requirements for healthy and sustainable lands and water. Such budget packages are expected to have a high return on investment and enable greater levels of performance.

(a) Performance Output Criteria and Ranking Factors. Include “non-critical” sustaining level budget packages to implement management practices to meet operational goals and objectives presented in project Master Plan and Operations Management Plan (OMP) for Corps fee-owned properties (e.g. shoreline management planning, boundary maintenance, preparation of the OMP, evaluation of land use requests, fire or pest management, comply with federal natural resources protection laws). Also included are packages which fulfill any additional requirements deemed necessary for meeting the fish passage criteria as outlined in a Corps approved fish passage plan; to implement management practices to meet operational goals and objectives presented in project OMP for Corps easement properties; discretionary activities, conditions and facilities requested by US Fish and Wildlife Service, National Marine Fisheries Service and/or a State that are in accordance with a HQUSACE approved final decision document; and capability/enhanced level budget packages to enhance condition of project lands and waters.

(b) Ranking Factors. Priority should be given to “non-critical” sustaining level budget packages: to prevent natural resources degradation or loss; to protect environmentally sensitive areas designated in accordance with ER/EP 1130-2-550 and identified in the project Master Plan; for work according to the recommended schedule and management practices prescribed in the project OMP or Corps approved fish passage plan; for special status species; for work that maximize efficiency of funds invested for this purpose; followed by capability/enhanced level budget packages that maximize efficiency of funds invested for this purpose. Additionally, packages with a relative risk index matrix score of 4 or 5 should be in this Increment if not otherwise required or legally mandated.

b. Mitigation Compliance. Budget packages are for operations, management and maintenance requirements identified and/or specified in project authorization legislation or project authorization decision documents that are necessary to mitigate for adverse impacts to ecological resources unavoidably induced by Corps project construction or operation (see Illustration C-3.1). (Note: since mitigation can occur on other than fee-owned land, no land ownership criteria are fixed to the location of outputs toward this performance measure as long as there is an authorized Corps obligation.) “Mitigation” considered under this performance measure does not include compensatory requirements that result from routine real estate out-grant actions or routine O&M actions. The amount of mitigation performance output to be generated by “Mitigation Compliance” budget packages (e.g. number of mitigation acres directly affected, number of pounds or number of individuals of fish released, etc.) will be recorded in E-S BEST. All packages related to the compliance with the Missouri River Biological Opinion, the Federal Columbia River Power System Biological Opinion or the Willamette River Biological Opinion shall be budgeted under the Endangered Species performance measure.

(1) Mitigation Compliance Increment 1 – Minimal - is for critical, time-sensitive (must be performed in the budget year), least-cost mitigation compliance work.

(a) Performance Output Criteria. Include budget packages for specifically authorized mitigation work necessary in the budget year.

(b) Ranking Factors. Priority should be given to budget packages for the operations, management and maintenance of essential work as required by Congressional authorization or HQ approved project authorization decision document that maximize efficiency of funds invested for this purpose. Additionally, packages with a relative risk index matrix score of 1 should be in this increment.

(2) Mitigation Compliance Increment 3 - “Critical” routine and non-routine - is for above the minimal program, “critical” mitigation compliance operations and maintenance activities that are necessary in the budget year to sustain expected future benefits and levels of service, and to support meeting FY14 performance targets of mitigation outputs (see TABLE C-3-6).

(a) Performance Output Criteria. Include budget packages that meet the same output criteria listed for minimal increment of this measure.

(b) Ranking Factors: Priority should be given to budget packages that respond to same ranking factors as in the minimal increment of this measure, and that have a relative risk index matrix score of 2.

(3) Mitigation Compliance Increment 4 - "Critical" routine and non-routine above Increments 1 and 3 - for all remaining "critical" mitigation compliance operations and maintenance of the project activities that are necessary in the budget year. Budget packages in this increment are those priority packages which are not accommodated in the Increments 1 or 3 due to increment dollar limits. Work in this increment is needed to sustain expected future benefits and levels of service of, and to achieve performance FY14 targets of mitigation outputs (see TABLE C-3-6).

(a) Performance Output Criteria. Include budget packages that meet the same output criteria listed for minimal increment of this measure.

(b) Ranking Factors: Priority should be given to budget packages that respond to same ranking factors as in the minimal increment of this measure, and that have a relative risk index matrix score of 3.

(4) Mitigation Compliance Increment 5 - "Non-Critical" Capability - is for above Increment 4 program work. It includes two types of budget packages that will be distinguished by special identifiers given in E-S BEST. The first identifier includes "non-critical" sustaining (i.e. not critical, but recommended to be done in FY14) mitigation operations and maintenance activities to sustain expected future benefits and levels of service of mitigation outputs. The second identifier includes capability level budget packages for work that is beyond activities which directly support the current management of mitigation activities and facilities. Such budget packages have a high expected return on investment and enable greater levels of performance in future years.

(a) Performance Output Criteria. Include "non-critical" sustaining level budget packages for inventory techniques and practices beyond a required evaluation that support operations, management and maintenance requirements that are necessary for the project to manage authorized fish and wildlife mitigation activities and facilities for activities that beyond mitigation compliance requirements and beyond activities which directly support the current management of mitigation activities and facilities and capability/enhanced level budget packages that enhance or enable greater levels of mitigation performance in future years.

(b) Ranking Factors. Priority should be given to "non-critical" sustaining level budget packages for recommended practices included and described in approved Corps Feature Design Memoranda or other project authorization decision documents, or Operational Management Plans, that maximize efficiency of funds invested for this purpose, followed by budget packages for the capability/enhanced level that maximize efficiency of funds invested for this purpose. Additionally, packages with a relative risk index matrix score of 4 or 5 should be in this Increment if not otherwise required or legally mandated.

c. Endangered Species Protection. Budget packages are for operations, management and maintenance activities necessary to comply with Endangered Species Act (ESA) requirements and for the protection of endangered and threatened species that occur on the project lands or that are impacted by project operation (see Illustration C-3.2). The "Endangered Species Protection" performance measure will be assigned in E-S BEST to budget packages that are to accomplish these outputs. [Note: the Bald Eagle, American Peregrine Falcon, Eggert's Sunflower, American Alligator are no longer listed by the Fish and Wildlife Service as Threatened or Endangered species; budget packages that address these species, or any other federally de-listed species, shall be competed under the Basic stewardship

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efficiency packages]. All packages related to the compliance with the Missouri River Biological Opinion, the Federal Columbia River Power System Biological Opinion or the Willamette River Biological Opinion shall be budgeted under the this measure. Where the package may include work related these biological opinions and other non related activities, the percentage of cost related to these specific biological opinions will be estimated and entered into ES BEST. Packages will indicate the least amount of funding necessary to perform the work in the budget year.

(1) Endangered Species Protection Increment 1 - Minimal - is for critical, time-sensitive (must be performed in the budget year) and least-cost endangered species protection.

(a) Performance Output Criteria. Include budget packages to conduct the necessary ESA coordination/consultation activities for project operation, to implement required “reasonable and prudent alternatives” (to avoid likely “jeopardy” or adverse critical habitat modification to federally listed species) or non-discretionary “reasonable and prudent measures” (outlined in incidental take statements). Also include packages to implement other mandatory items specified in an applicable Final ESA Biological Opinion, to implement essential management practices on Corps fee-owned or other Corps administered properties for Federally-listed endangered or threatened species (i.e. species that are not otherwise protected by “reasonable and prudent alternatives” and/or non-discretionary “reasonable and prudent measures”), and to avoid direct adverse impacts to ESA species or their habitat, in the budget year. Note: do not include funding for the implementation of mitigation or conservation measures which are only recommended or are otherwise considered discretionary, identified during ESA consultation.

(b) Ranking Factors. Priority should be given to budget packages for federally listed endangered or threatened species with Final Biological Opinions. Next in priority would be federally listed endangered or threatened species with Draft “Likely Jeopardy” Biological Opinion. Include in this increment packages with a relative risk index matrix score of 1. All packages must maximize efficiency of funds invested.

(2) Endangered Species Protection Increment 3 – “Critical routine and non-routine - is for above the minimal program, “critical” endangered species protection operations and maintenance activities that are necessary in the budget year to sustain expected future benefits and levels of service of, and to achieve FY14 performance targets of endangered species protection outputs (see TABLE C-3-6).

(a) Performance Output Criteria. Include budget packages that meet the same output criteria listed for the minimal increment of this measure.

(b) Ranking Factors: Priority should be given to budget packages that respond to same ranking factors as in the minimal increment of this measure, and those packages which have a relative risk index matrix score of 2.

(3) Endangered Species Protection Increment 4 - “Critical” routine and non-routine above Increments 1 and 3 - is for all remaining “critical” endangered species protection operations and maintenance activities that are necessary in the budget year. Budget packages in this increment are those packages which are not accommodated in the Increments 1 or 3 due to increment dollar limits. Work in this increment is needed to sustain expected future benefits and levels of service while lowering risk.

(a) Performance Output Criteria. Include budget packages that meet the same output criteria listed for the minimal increment of this measure.

(b) Ranking Factors: Priority should be given to budget packages that respond to same ranking factors as in the minimal increment of this measure, and those with a relative risk index matrix score of 3.

(4) Endangered Species Protection Increment 5 – “Non-Critical” Capability - is for above Increment 4 program work. It includes two types of budget packages that will be distinguished by special identifiers given in E-S BEST. The first identifier includes “non-critical” sustaining (i.e. not critical, but recommended to be done in FY14) endangered species protection operations and maintenance activities to sustain expected future benefits and levels of service of endangered species protection outputs. The second identifier includes capability level budget packages for work that is beyond ESA budget year compliance requirements. Such budget packages are expected to have a high return on investment and enable greater levels of performance in endangered species protection output in future years.

(a) Performance Output Criteria. Include “non-critical,” sustainable level budget packages for research, monitoring or modeling required beyond evaluation to support the maintenance O&M requirements necessary for the project to implement “reasonable and prudent” alternatives (RPAs) or measures (RPMs), on Corps fee-owned or administered properties. RPAs and RPMs must be specified in Final ESA Biological Opinions, Final Recovery Plans, Feature Design Memoranda, Operational Management Plans, or other decision documents relating specifically to a particular operating facility. Also include packages which implement Conservation Measures for federally listed species as described in Biological Opinions issued to the Corps by the U.S. Fish and Wildlife Service, and/or the National Marine Fisheries Service (USFWS/NMFS) and capability/enhanced level budget packages that enhance endangered species protection activities.

(b) Ranking Factors. Priority should be given to “non-critical” sustaining level budget packages for federally listed endangered or threatened species with a final Biological Opinion, for federally listed endangered or threatened species with Final Recovery Plans and for state listed endangered or threatened species, that maximize efficiency of funds invested for this purpose. Next in priority are capability level budget packages for federally listed endangered or threatened species with Final Recovery Plans that maximize efficiency of funds invested for this purpose. Additionally, packages with a relative risk index matrix score of 4 or 5 should be in this Increment.

d. Cultural Resources Management. Budget packages are for O&M requirements to meet federally mandated responsibilities for the management of significant cultural resources. Authorities include, but may not be limited to, Sections 106 and 110 of the National Historical Preservation Act (NHPA), Section 3 of the Native American Graves Protection and Repatriation Act (NAGPRA), and Sections 4 through 9 of the Archeological Resources Protection Act (ARPA). The term “significant cultural resources” means “historic property” as defined in Section 301 of NHPA, “inadvertent discoveries” is defined in Section 3 of NAGPRA and “archeological resources” is defined in section 3 of ARPA (see Illustration C-3.3). The “Cultural Resources Management” performance measure will be assigned in E-S BEST to budget packages that are to accomplish these outputs. Budget packages will indicate the least amount of funding necessary to accomplish the work in the budget year.

(1) Cultural Resources Management Increment 1 – Minimal - is for critical, time-sensitive (must be performed in the budget year) and least-cost cultural resources management.

(a) Performance Output Criteria. Include budget packages to prevent imminent threats to historic properties as defined in NHPA Section 301, to inadvertent discoveries as defined in NAGPRA Section 3 and to archeological resources having religious or cultural significance as defined in ARPA Sections 3 and 4, through preservation and protection or by implementing appropriate mitigation measures. Also includes actions to complete the NHPA Section 106 “process”, conduct tribal consultation and coordination, perform law enforcement/management measures (identified in statutory, regulatory, and operational management directives), complete requirements for specific cultural resources surveys, to house and curate archaeological collections to the standards outlined in 36 CFR Part 79 (Curation of Federally-Owned and Administred Archaeological Collections). Do not budget for work that will be

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completed for or by other business lines activity. Cultural activities for other business lines should be budget through their own budget process.

(b) Ranking Factors. Priority should be given to budget packages for National Register of Historic Places (NRHP) listed and eligible resources on Corps fee-owned property, packages for projects with greater numbers of vandalized or threatened cultural resources sites and those requiring monitoring, and packages for existing curation contracts that continue to meet 36 CFR Part 79 based on volume and condition. Next in priority are packages for NRHP listed resources on Corps administered, less-than-fee owned, properties, for required activities in support of the OMP proposed development or proposed land disturbances under Section 106 of NHPA, for work that completes or updates the development a project HPMP and land surveys during the budget year, and for packages that have a relative risk index score of 1. All budget packages must maximize efficiency of funds invested for this purpose.

(2) Cultural Resources Management Increment 3 – “Critical routine and non-routine - is for above the minimal program, “critical” cultural resources management operations and maintenance activities that are necessary in the budget year to sustain expected future benefits and levels of service of, and to achieve FY14 performance targets of cultural resources management outputs (see TABLE C-3-4).

(a) Performance Output Criteria. Include budget packages that meet the same output criteria listed for the minimal increment of this measure.

(b) Ranking Factors: Priority should be given to budget packages that respond to same ranking factors as in the minimal increment of this measure, and that have a relative risk index score of 2.

(3) Cultural Resources Management Increment 4 - “Critical” routine and non-routine above Increments 1 and 3 - for all remaining “critical” cultural resources management operations and maintenance activities that are necessary in the budget year. Budget packages in this increment are those packages which are not accommodated in the Increments 1 or 3 due to increment dollar limits. Work in this increment is needed to sustain expected future benefits and levels of service while lowering risk.

(a) Performance Output Criteria. Include budget packages that meet the same output criteria listed for the minimal increment of this measure.

(b) Ranking Factors: Priority should be given to budget packages that respond to same ranking factors as in the minimal increment of this measure, and that have a relative risk index score of 3.

(4) Cultural Resources Management Increment 5 – “Non-Critical” Capability - is for above Increment 4 program work. It includes two types of budget packages that will be distinguished by special identifiers given in E-S BEST. The first identifier includes “non-critical” sustaining (i.e. not critical, but recommended to be done in FY14) cultural resources management O&M activities to sustain expected future benefits and levels of service of cultural resources management outputs. The second identifier includes capability/enhanced level budget packages for work that is beyond cultural resources management mandated requirements. Such budget packages are expected to have a high return on investment and enable greater levels of performance cultural resources management in future years.

(a) Performance Output Criteria. Include “non-critical” sustaining level budget packages to manage cultural resources properties of unknown NRHP eligibility, but properties may still have consideration under various statutory authorities; and capability/enhanced level budget packages for work enhances efficiency in responsible management of cultural resources.

(b) Ranking Factors. Priority should be given to “non-critical” sustaining level budget packages that implement work on Corp fee-owned properties in support of and in accordance with the project OMP and packages to prepare a Historic Property Management Plan. Next in priority are capability/enhanced level budget packages for cultural resources on Corps properties. All packages should maximize efficient use of funds. Additionally, packages with a relative risk index matrix score of 4 or 5 should be in this Increment if not otherwise required or legally mandated.

e. Master Plan Completion. Budget packages are for work to complete a Master Plan (MP) supplement or update, for which the primary focus is to include natural resources management objectives, identify environmentally sensitive areas, and meet stewardship requirements of ER/EP 1130-2-550 (see Illustration C-3.5). In addition to output and ranking factors below, master plans identified within regions that require immediate attention may be identified by the MSC as high priority to meet national performance targets. NOTE: it is not appropriate for the entire master plan to be funded from the E-S budget; only NRM related aspects of the MP should be covered by this performance measure.

(1) Master Plan Completion Increment 1 – Minimal - is for critical, time-sensitive (must be performed in the budget year) and least-cost master plan work.

(a) Performance Output Criteria. Include budget packages to initiate, continue, or complete a Master Plan supplement or update where the natural resources on Corps fee-owned or administered lands face imminent threat from commercial, residential and industrial development on private lands immediately adjacent to the project fee or administrative boundary.

(b) Ranking Factors. Priority should be given to budget packages with the most effective combination of the following factors: one third or more of the project fee-owned boundary is immediately adjacent to developed (commercial, residential, and industrial) lands; existing Master Plan was written/updated more than 5 years ago and budget package completes the project Master Plan or supplement in the budget year. Packages must maximize efficient use of funds provided. In addition, packages with a relative risk index matrix score of 1 should be in Increment 1.

(2) Master Plan Completion Increment 3 - “Critical” routine and non-routine - is for above the minimal program, “critical” master plan operations and maintenance activities that are necessary to complete, continue, or initiate required master plans, supplements or updates in the budget year. Budget packages in this increment sustain expected future benefits and support meeting FY14 performance targets of master plan completion outputs (see TABLE C-3-4).

(a) Performance Output Criteria. Include budget packages: that meet the same output criteria listed for the minimal increment of this measure.

(b) Ranking Factors: Priority should be given to budget packages: that respond to same ranking factors as in the minimal increment of this measure, and that have a relative risk index matrix score of 2.

(3) Master Plan Increment 4 - “Critical” Critical routine and non-routine above Increments 1 and 3 - for all remaining “critical” master plan operations and maintenance activities that are necessary to complete, continue, or initiate required master plans, supplements or updates in the budget year. Budget packages in this increment are those packages which are not accommodated in the Increments 1 or 3 due to increment dollar limits. Work in this increment sustains expected future benefits and levels of service while lowering risk.

(a) Performance Output Criteria. Include budget packages: that meet the same output criteria listed for the minimal increment of this measure.

(b) Ranking Factors: Priority should be given to budget packages: that respond to same ranking factors as in the minimal increment of this measure, and that have a relative risk index matrix score of 3.

(4) Master Plan Completion Increment 5 - "Non-Critical" Capability - is for above Increment 4 program work. It includes two types of budget packages that will be distinguished by special identifiers given in E-S BEST. The first identifier includes "non-critical" sustaining budget packages (i.e. not critical, but recommended to be done in FY14) for Master Plan completion operations and maintenance activities. Such budget packages are to complete, continue, or initiate master plans, supplements or updates that are recommended in the budget year. These budget packages are to sustain expected future benefits and levels of service while lowering risk. The second identifier includes capability/enhanced level budget packages for work that is beyond any mandated requirements for master planning. Such budget packages are expected to have a high return on investment and enable greater levels of performance in master plan completion in future years.

(a) Performance Output Criteria. Include "non-critical" sustaining level budget packages: to update Master Plans in accordance ER 1130-2-550 for all fee-owned property or administered Corps property; and for capability/enhanced level budget packages that accelerate the completion of master plan, or master plan supplement, requisites beyond FY14 performance target levels.

(b) Ranking Factors. Priority shall be given to budget packages that provide the most effective combination of the following factors: factors included in the minimal increment of this measure; work to update natural resources objectives, land use classification and the specific identification of all environmentally sensitive areas on Corps fee-owned or administered properties; age of the existing master plan; and work in accordance with a schedule to complete the MP. All packages must maximize efficient use of funds invested for this purpose. Additionally, packages with a relative risk index matrix score of 4 or 5 should be in this Increment.

C-3-7. Risk Assessment. Risk assessment involves identifying potential future condition for a performance measure area, assessing the likelihood or confidence level that the condition will occur and the consequences involved for that performance area. This PY budget improves on Stewardship performance measurement by incorporating risk assessment factors into the budget development process. This brings Stewardship in line with USACE risk management efforts in the Navigation, Hydropower and Flood Risk Management business lines, which use a common format to address risk. The common format is the Relative Risk Matrix Index, with values ranging from 1 through 5, where 1 is the most critical need and 5 is a non-critical need; this coincides with Dam Safety Action Classification (DSAC) rating scales of 1 through 5. The Relative Risk Matrix Index values are determined by cross referencing five levels of Consequence on the vertical axis of the table with five levels of Condition Assessment Classification across the horizontal axis at the top of the matrix table, as seen in TABLE C-3-5.

a. Consequences are identified in TABLE C-3-4. ES-BEST will ask for the level of consequence for each budget package to be identified, from Level I to level V, placing particular emphasis on legal risks and short term/long term risks to natural resources

b. Condition Assessment levels are identified and scored for each budget package (A to F) in ES-BEST, placing emphasis on stakeholder interest and mission impacts, in accordance with the Condition Classifications below:

(1) F. Failed condition represents that the natural resources addressed in this package will remain degraded and no longer ecologically or culturally valuable without very intensive management or restoration. For example, in Basic Stewardship, if over 70% of the boundary line and boundary markers are vandalized, destroyed, or missing, that could be considered a failed condition.

(2) D. Poor condition represents that the natural resources addressed in this package is well below desired environmental conditions under normal operating conditions. Expect to receive numerous stakeholder complaints. Signs of degradation and progressing ecological or cultural damage are present. Intensive non-routine management is necessary. For example, in Cultural Resources, if archeological artifacts are secured in a locked storage room, but have not yet been curated, that could be considered a poor condition.

(3) C. Change to Fair condition represents that the natural resources addressed in this package is not meeting desired environmental conditions without non-routine maintenance Expect to receive stakeholder complaints. For example, under Mitigation, if a fish ladder is functioning but needs a new flow meter, that could be considered fair condition.

(4) B. Good condition represents that the natural resources addressed in this package is meeting desired environmental conditions and only minor management may be necessary. For example, with Master Plans, the plan may be up to date and complete, but the vegetative cover maps are three years old and need to be updated, that could be considered good condition.

(5) A. Excellent condition represents that the natural resources addressed in this package is meeting desired environmental conditions and expected to remain excellent with routine management. For example, with Endangered Species, all items in the Biological Opinion which require action on the part of the Corps were accomplished using PY money or earlier and no actions are required in FY14, that would be considered excellent condition.

c. Answers in ES-BEST will be auto-filled in OFA, with Condition Assessment (A,B,C,D or F) going in column 'AI/34' and Consequence Category (I, II, III, IV, or V) going in column 'AJ/35.' ES-BEST will automatically cross reference answers for Consequence against Condition Assessment to determine the Relative Risk Value (1-5) and Relative Risk Index Matrix score for that particular budget package (from 1 to 5), and will auto-fill the numbers/score in columns 'AK/36' and 'AL/37' respectively of OFA. Where available or applicable, fill in PY information in columns 'AE/30' thru 'AH/33' of OFA. The ES-BEST risk score for a budget package should roughly correspond with the determination of whether it is critical or non-critical, as indicated by the package Increment. Increment 1 packages should generally receive a Relative Risk Index Matrix score of 1, and scores for Increment 3s and above should generally fall in the range of 2 to 3. Only rarely should an Increment 3s have a risk score of 1. ES-BEST may be adjusted to take into consideration variables regarding the project current condition and performance measures to adjust risk scoring.

Consequence Category	TABLE C-3-4 ENS - Consequences Rating Criteria
I	<p>High:</p> <p>Violation of Legal Requirement High stakeholder/political/environmental interest, Significant negative impact to the resource, complete loss of 1 or more other mission requirements</p>
II	<p>Medium - High:</p> <p>Medium to high potential for violation of Legal Requirement, medium to high stakeholder/political/environmental interest, medium high negative impact to the resource, significant loss of other mission requirements.</p>
III	<p>Medium:</p> <p>Moderate potential for violation of Legal Requirement, moderate stakeholder/political/environmental interest, moderate negative impact to the resource, some loss of other mission requirements.</p>
IV	<p>Low:</p> <p>In violation of requirements from Engineer Regulations only, low stakeholder/political/environmental interest, low negative impact to the resource, low loss of other mission requirements.</p>
V	<p>Minimal:</p> <p>Generally in compliance with Engineer Regulations, negligible stakeholder/political/environmental interest, negligible impact to the resource, very low loss of other mission requirements . Overall negligible impacts or risks.</p>

		TABLE C-3-5				
		Environmental-Stewardship Relative Risk Index Matrix				
		Condition Assessment Classification				
		F Failed	D Poor	C Fair	B Good	A Excellent
Consequences						
Consequence/Economic Impact	I	1	1	2	2	3
	II	1	2	2	3	4
	III	2	2	3	4	4
	IV	2	3	4	4	5
	V	3	4	4	5	5

1	High Risk
2	Medium - High Risk
3	Moderate Risk
4	Low Risk
5	Minimal Risk

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ILLUSTRATION C-3.1

Environment – Stewardship

PY Performance Measure:
Mitigation Compliance

GOAL: Assure compliance with environmental mandates and legal requirements (Corps mitigation outputs meet the requirements of authorizing legislation or relevant Corps decision document).

Key Result Areas: Environment Stewardship Results and Justification

Customer: Public

Measure: Percent of Corps administered mitigation lands (acres), or the percent of pounds/numbers of mitigation fish released from mitigation hatcheries, meeting the requirements in the authorizing legislation or relevant Corps of Engineers authorization decision document.

Mitigation lands: Mitigation lands are those lands on which mitigation measures are taken to compensate for adverse ecological impacts unavoidably caused by Corps projects or activities. For the performance measure, these lands are those authorized by Congress or approved by HQUSACE in a formally documented authorization decision document.

Mitigation fish hatcheries: Mitigation fish hatcheries are those facilities which are which are funded or operated by the Corps for the taking, fertilization, incubation and hatching of fish eggs, and/or rearing of young fish to be released, to compensate for unavoidable adverse impacts to fish species or their habitat caused by Corps projects. For the performance measure, these fish are those that were authorized by Congress or approved by HQUSACE in a formally documented authorization decision document.

Corps administered lands: Lands either managed by the Corps or lands licensed permitted or leased from the Corps.

Definition: Number of designated Corps administered mitigation lands (acres) meeting mitigation requirements divided by the total number of designated Corps administered mitigation lands (acres); or the number of pounds (or number of individual) fish released from a mitigation hatchery, divided by the number of pounds (or number of individuals) of fish required to be released from that mitigation fish hatchery to meet the mitigation requirement for the budget year.

Demonstrates: Status of Corps efforts to meet mitigation requirements.

Unit of Output: Acres or number of pounds (or individuals) of fish

Data Source: OMBIL, E-S BEST

ILLUSTRATION C-3.2

Environment – Stewardship
PY Performance Measure:

Endangered Species Protection

GOAL: Assure compliance with environmental mandates and legal requirements identified in Federal law

Key Result Areas: Environment-Stewardship Results and Justification

Customer: Public

Measure: Percent of Corps operating projects with Endangered Species Act requirements for which the Corps is meeting Endangered Species Act (ESA) requirements or responsibilities.

Definition: Total number of Corps projects that meet ESA compliance requirements in the budget year divided by the total number of projects that have ESA compliance requirements in the budget year.

Demonstrates: Status of Corps efforts to meet ESA requirements.

Unit of Output: Corps projects in compliance with ESA requirements.

Data Source: OMBIL

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ILLUSTRATION C-3.3

Environment – Stewardship
PY Performance Measure:

Cultural Resources Management

GOAL: Protect and preserve cultural resources.

Key Result Areas: Environment-Stewardship Results and Justification

Customer: Public

Measure: Percent of Corps operating projects meeting federally mandated cultural resources management responsibilities.

Definition: The total number of Corps projects meeting federally mandated cultural resources management responsibilities divided by the total number of Corps projects with federally mandated cultural resources management responsibilities.

Demonstrates: Status of Corps efforts to protect and preserve cultural resources.

Unit of Output: Projects complying with federally mandated cultural resources responsibilities.

Data Source: OMBIL

ILLUSTRATION C-3.4

Environment – Stewardship
PY Performance Measure:

Basic Stewardship

GOAL: Manage natural resources to assure a healthy and sustainable condition and meet requirements of National Environmental Policy Act, Section 101

Key Result Areas: Environment-Stewardship Results and Justification

Customer: Public

Measure: Percent of healthy and sustainable acres on Corps fee-owned or administered property.

Sustainable: Meets the desired state. The acreage is not significantly impacted by any factors that can be managed and does not require intensive management. The acreage also meets operational goals and objectives set out in project Operational Management Plan (OMP) or other applicable management document. These acres are considered healthy and sustainable for future generations. Only minor management practices may be required to maintain the health. For the purposes of this measure, Project Operations Lands (occupied by prime facilities such as the project office, dam, locks and other facilities) identified in the Master Plan are to be classified as “sustainable”.

Fee-Owned: Real property for which the U.S. has all rights, titles, and interest.

Corps Administered Property. Property less than fee where the Corps has legal obligations to protect, maintain and/or manage.

Definition: The number of Corps fee-owned acres classified as in a sustainable condition versus the total number of Corps fee-owned acres.

The result for this measure provides an indicator of the status of all Corps fee-owned acres (land and water). This indicator shall be the overall condition of project acreage as assigned during the inventory and classification of vegetation on Corps fee-owned and Corps administered lands and waters.. The National Vegetation Classification System (NVCS) is the system that the Corps has adopted for the Level One Natural Resources Inventory and the vegetation classes of the NVCS will be the reference unit for which the condition will be assigned. The NVCS data collection will be supported in the Environment-Stewardship module of OMBIL beginning in FY05. The measure of sustainable acres will use the NVCS if the Corps fee lands have been classified using the NVCS. Special note: Many projects have used other vegetative classification systems in the conduct of their Level One Natural Resources Inventory. During the initial 4 years of implementation of this measure and of data transition to the NVCS, those other systems may be used along with “best professional judgment” to quantify the number of sustainable fee-owned acres.

Each project will identify and categorize their project fee-owned acres into the four following categories:

a. Sustainable – Meeting desired state. The acreage is not significantly impacted by any factors that can be managed and does not require intensive management. The acreage also meets operational goals and objectives set out in project OMP or other applicable management document. These acres are

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considered healthy and sustainable for future generations. Only minor management practices may be required to maintain the health.

b. Transitioning – Managed to meet desired goals. The acreage is impacted by human or other environmental factors that require management of the acreage to meet goals and objectives outlined in the project OMP or other applicable management document.

c. Degraded – Does not meet desired goals. The acreage is significantly impacted by human or other environmental factors that prevent the acreage from meeting desired goals outlined in the project OMP or other management documents. The acreage is not considered healthy. Intense management may be required to meet desired goals.

d. Not Assessed – The acreage has not been assessed against operational goals and objectives and thus a condition rating cannot be determined.

Demonstrates: Status of Corps efforts in achieving the goal of 100% environmental sustainability.

Unit of Output: Acres

Data Source: OMBIL

EXCEPTION: Select (or On a voluntary basis) projects may choose to enter data into a new worksheet in ES-BEST (and OMBIL) on a test basis, to evaluate a revised, more objective method for assessing basic stewardship performance.

ILLUSTRATION C-3.5

Environment – Stewardship
PY Performance Measure:

Master Plan Completion

GOAL: Foster healthy lands and waters by balancing public uses and needs, and fully integrate the Corps of Engineers Environmental Operating Principles (EOPs).

Key Result Areas: Environment-Stewardship Results and Justification

Customer: Public

Measure: Percent of Corps-operated water resource projects with completed Master Plans in compliance with Engineering Regulation (ER) 1130-2-550.

Master Plan: The Master Plan is a document that guides the development, management and public use of the project.

Engineering Regulation (ER) 1130-2-550: This regulation and its companion guidance, Engineering Pamphlet (EP) 1130-2-550, provide both the policy and guidance governing the preparation and development of Master Plans and Operational Management Plans.

Definition: The number of project required Master Plans in compliance with ER 1130-2-550 divided by the total number of project required Master Plans.

Master Plans shall be developed and kept current for all civil works projects and other fee-owned lands for which the Corps has administrative responsibility for management. To be considered compliant with policy and guidance in ER/EP 1130-2-550, a Master Plan shall address regional and ecosystem considerations, project resource capabilities and suitabilities, and expressed public interests and desires. Of critical importance to Environmental Stewardship, Master Plans shall include a land classification system in accordance with ER/EP 1130-2-550 (that recognizes environmentally sensitive areas) and includes specific natural resource management objectives that support the EOPs.

Demonstrates: Corps commitment to fully integrate environmental stewardship and the Corps Environmental Operating Principles in the management of operating projects.

Unit of Output: Compliant Master Plan

Data Source: OMBIL

NOTE: Level One Natural Resources Inventories have been dropped as a separate performance measure, however, some projects may still need to complete inventories, especially as part of the Master Plan process.

ILLUSTRATION C-3.6

PY Environment-Stewardship Budget Development Workflow

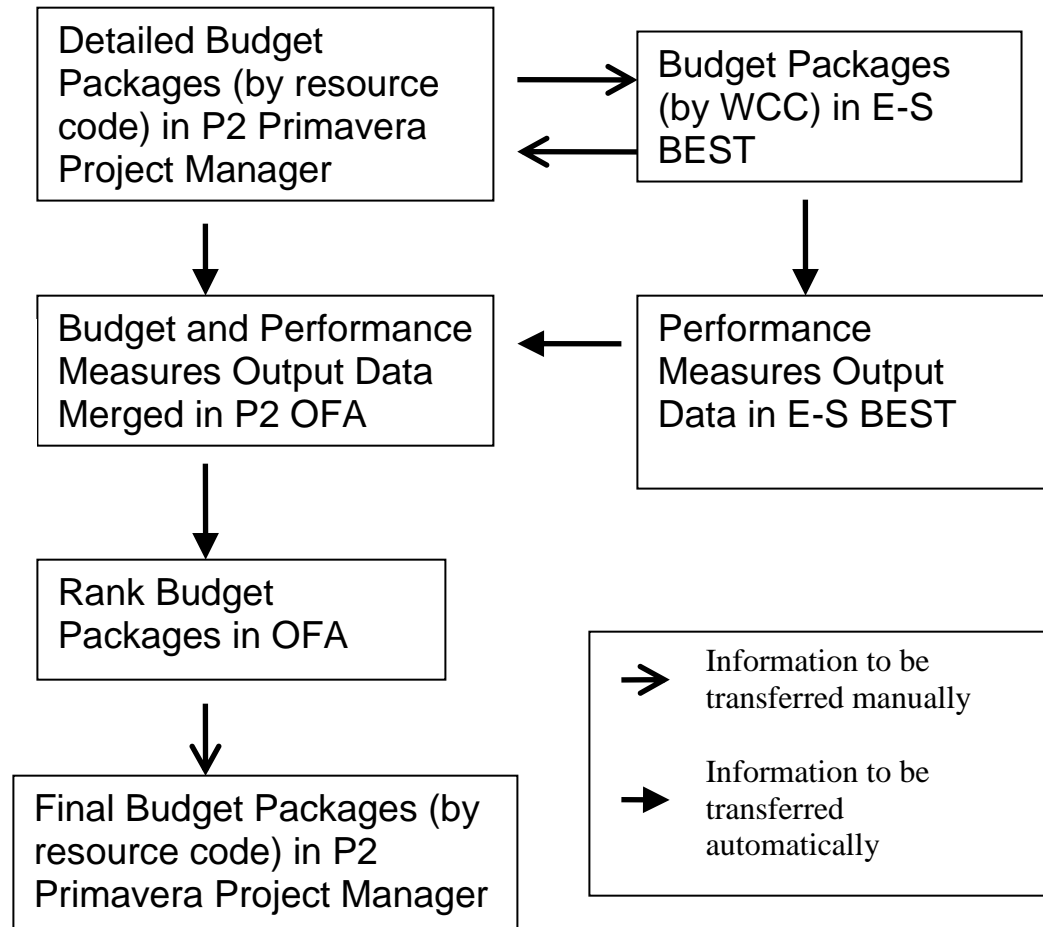
Two options for building your FY14 budget:

1. Start in E-S BEST and then provide the budget information to your P2 correspondent for data entry in P2. 2. Start the budget development in P2 then revise your E-S BEST budget information accordingly. For either option, it is recommended that the FY13 budget data entered in P2 should be carried over to FY14 to minimize the effort of entering the same budget information again. Make sure to enter the matching BEST_ID when entering budget information in P2.

Performance measure output data calculated in E-S BEST will be uploaded to OFA on a nightly basis, to match with all budget packages entered in Project Manager. Direct access to E-S BEST database will be available for District and Division quality assurance review.

HQ and MSC business line managers recommend the nationwide program using budget and performance measures output data submitted in P2 and E-S BEST. Environment-Stewardship budget is then submitted to HQ, ASA, and later OMB for budget appropriation.

Final budget adjustment in P2 based on President's budget. Manually adjust budget information in P2 Primavera Project Manager based on final budget appropriation recorded in OFA.



SUB-APPENDIX C-4

Formerly Utilized Sites Remedial Action Program

C-4-1. Introduction.

a. In 1998 Congress directed the Corps to conduct response actions on early atomic energy program sites subject to the administrative, procedural, and regulatory provisions of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) and the National Oil and Hazardous Substances Pollution Contingency Plan. This program, called the Formerly Utilized Sites Remedial Action Program (FUSRAP) was begun in 1970s by a predecessor agency to the Department of Energy. Response actions under CERCLA consist of: sampling and assessment of contaminated areas, characterization of site conditions, determination of the nature and extent of contamination, selection of the necessary and appropriate response actions as lead Federal agency, cleanup and closeout of sites and other actions necessary for remediation. In addition, the Corps assesses whether other potentially responsible parties are involved and addresses stakeholder environmental and regulatory issues.

b. Twenty-one sites still under evaluation and/or remediation were transferred from DOE to the Corps in FY98. Five of these sites have been remediated and transferred back to DOE for long-term stewardship. Since FY98 DOE has identified an additional 14 sites as eligible for FUSRAP. The Corps uses a Potential Sites budget line item to fund the Preliminary Analysis/Site Inspection (PA/SI) for new eligible sites referred by DOE. The Corps has completed the PA/SI on twelve of these sites, eliminating five of them from further consideration and adding seven of these sites into the program for the reason of budgeting additional activities after concluding that a release or threat of release of a hazardous substance exists that warrants response action under CERCLA. Congressional direction resulted in adding one of the sites. The Corps is completing the PA/SI on the two remaining sites (Middlesex Municipal Landfill and Staten Island Warehouse Dock). Funds were budgeted for a total of twenty-two sites in FY13.

C-4-2. Purpose. To clean-up contaminated sites throughout the United States where work was performed as part of the Nation's early atomic energy program.

C-4-3. Goals and Objectives. The goal of the FUSRAP program is to protect human health and the environment from residual radioactive contamination at sites formerly utilized for by the Manhattan Engineer District and the Nation's early atomic energy program. The major objectives of the FUSRAP program are to evaluate and remediate, as necessary, sites identified by the Department of Energy (DOE) as eligible for consideration under FUSRAP. Each FUSRAP divisions' multi-year program should be developed and conducted in such a manner that projects are completed as soon as possible and at the lowest cost consistent with cleanup criteria. Criteria utilized are those that are protective of human health and the environment, responsive to regulatory and community interests, and in accordance with the current and reasonably foreseeable future land use.

TABLE C-4-1

FUSRAP Environmental Performance Measures

Strategic Goal #2 - Repair past degradation and prevent future environmental losses. From the March 2004 Civil Works Strategic Plan
Strategic Objective 2.3 --- Assist in cleanup of contaminated, hazardous, toxic, and radioactive waste sites as authorized or requested by others.
Performance Measures:
#1 - Number of individual properties returned to beneficial use on a cumulative basis.
#2 – Cumulative percentage of FUSRAP funding that is expended on cleanup activities rather than studies.
#3 – Cubic yardage of contaminated material.
#4 – Number of Records of Decision (RODs) signed on a cumulative basis by the U.S. Army Corps of Engineers.
#5 – Number of Remedial Investigations Completed.
#6 – Number of Remedies in Place or Response Complete.
#7 – Total Cost of disposing of contaminated material as measured in cubic yards.
#8 – Number of Action Memorandums signed.

C-4-4. Five and Ten Year Funding Streams.

a. The five and ten year development plans for FUSRAP projects will follow the guidance provided in paragraph 12 of the MAIN part of this EC. The PY – PY+9, ten year plan will be finalized at the FUSRAP PRP meeting in June 2012. The Five Year Development Plan (FYDP) will use a subset of the 10 year plan and will be developed separately.

b. The ten year funding stream (PY –PY+9) development for FUSRAP projects will follow the guidance provided in paragraph 12 of the MAIN part of this EC.

c. The Final PY budget amounts will be provided after OMB Passback and the Divisions' will update the 10 year program based on Passback. A final 10-year plan will be prepared in support of the President's final submission to Congress in February PY-1. See paragraph 12 of the MAIN part of this EC.

C-4-5. Ranking Process.

a. Project activities lending themselves directly to accomplishment of the FUSRAP objectives and sub-objectives will be prioritized using the following factors to assist in assuring that program goals are being met. The FUSRAP Civil Works Program Manager will hold a program meeting in the third quarter of the fiscal year to analyze the current year budget, and to project the 10-year requirement at a program level. The FUSRAP team will draft an initial budget increment and additional increments as discussed below. The ranking factors in order of importance are as follows:

- (1) Eliminate demonstrable threat to public health, safety, or the environment;
- (2) Federal Facility Agreements (FFA) or other legal/contractual/regulatory requirements;
- (3) Complete Preliminary Assessment to identify presence of demonstrable or potential threat;
- (4) Completion of final response action;
- (5) Efficient design/construction schedule;
- (6) Completion of current study or removal phase (RI/FS, EE/CA, etc);
- (7) Eliminate potential threat to public health, safety or the environment;
- (8) Local support; and
- (9) Potentially responsible party issues.

b. The initial program is defined using the following criteria:

- (1) Activities necessary to maintain site security and meet legal mandates.
- (2) Preliminary Assessments/preliminary legal analysis of potential new sites at minimum sufficient level to determine if immediate human health or environmental safety threats exist. This criterion will be used to rank projects in the potential sites line item within the FUSRAP budget and from any available unobligated carryover funds.
- (3) Continue previously awarded contracts for design, removal, or remediation projects under construction phase of remediation.
- (4) Continue previously awarded contracts for Remedial Investigation, Feasibility Studies, and Records of Decision activities. Only award new RI/FS/ROD contracts where human health and/or environmental safety threats need to be characterized.
- (5) Site closeout activities sufficient to meet legal and health and safety requirements and transition sites to DOE in efficient fashion.
- (6) Removal Actions necessary to meet CERCLA criteria for time critical or non-time-critical removals.

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(7) Activities necessary to facilitate participation by potentially responsible parties, either as performers of work or contributors of funds toward remediation and closeout.

(8) New contracts for design, removal, or remediation projects must be funded in accordance with the guidance in paragraph 10 in the MAIN part of this EC.

C-4-6. Performance Based Budget Increments. Add additional budget items for logical, needed increments that contribute to the program performance measures in the table above.

C-4-7. Program Phases.

a. The FUSRAP Study Phase includes the following CERCLA processes:

(1) Preliminary Assessment (PA). A PA is a limited-scope investigation to collect readily available information about a site and its surrounding area. The PA is designed to distinguish, based on limited data, between sites that pose little or no threat to human health and the environment and sites that may pose a threat and require further investigation. The PA also identifies sites requiring assessment for possible emergency response actions.

(2) Site Inspection (SI). SI is an on-site inspection to determine whether there is a release or potential release and the nature of the associated threats. The purpose is to augment the data collected in the preliminary assessment and to generate, if necessary, sampling and other field data to determine if further action or investigation is appropriate.

(3) Remedial Investigation (RI). RI is the process undertaken to determine the nature and extent of the problem presented by a release, which emphasizes data collection and site characterization. The remedial investigation is generally performed concurrently and in an interdependent fashion with the feasibility study.

(4) Feasibility Study (FS). FS is a study undertaken to develop and evaluate alternatives for remedial action.

(5) Engineering Evaluation/Cost Analysis (EE/CA). This document is prepared in the case of a non-time critical removal action. The EE/CA is an analysis of removal alternatives and must satisfy environmental review and administrative record requirements, and provide a framework for evaluating and selecting alternative solutions.

(6) Record of Decision (ROD). The ROD is a document prepared in accordance with the requirements of 40 CFR 1505.2 that provides a concise public record of the agency's decision on a proposed action. It identifies alternatives considered in reaching the decision, the environmentally preferable alternative(s), factors balanced by the agency in making the decision, and mitigation measures and monitoring to minimize harm.

(7) Remedial Design (RD). RD is an engineering phase that follows the Record of Decision when technical drawings and specifications are developed for subsequent remedial action.

b. The FUSRAP Implementation (Construction) phase consists of the following CERCLA processes:

(1) Remedial Action (RA). RA is the actual construction and implementation of a remedial design that results in long-term site cleanup.

(2) Removal Action (EE/CA). An Engineering Evaluation/Cost Analysis (EE/CA) documents a removal action that is used where a site presents a relatively time-sensitive, non-complex problem that can and should be addressed relatively inexpensively. But even expensive and complex response actions may be removal action candidates if they are relatively time-sensitive.

C-4-8. Definition of FUSRAP Budget Increments.

a. Definition of Work Increment: A work increment is a discrete amount of work identified by an activity or a set of activities with specific resource requirements and a schedule.

b. Definition of Activity: A component of work performed during the course of a project. An activity could be a process (e.g. collection of data) or lead to a deliverable (write a report). Activities are the building blocks of the P2 system – they have assigned durations, resources, and relationships. These increments do NOT define funding levels.

(1) Investigation/Study Phase Increment Definitions:

(a) Increment 1: This increment will include only the minimum continuing study activities, which include all CERCLA study processes. The total request is limited to the budget amount for PY-1, by study. Do not include new studies. Increment must be performance based with high outputs and consistent with ranking.

(b) Increment 2: This increment will include the activities needed to sustain (not fall behind/not accelerate) the study schedule included in the PMP. The total of the activities included in this level is not limited by the PY-1 budget. New starts may not be included. Increment must be performance based with high outputs and consistent with ranking.

(c) Increment 3: This increment includes additional capability activities that can be supported by Corps resources. This increment can be viewed as enhancing the project schedule. Increment must be performance based with high outputs and consistent with ranking.

(d) Increment 4: Place new start studies in Increment 4, for example a new Remedial Investigation at a new site. Increment must be performance based with high outputs and consistent with ranking.

(e) Increments 5 – 8: Not used.

(f) Increment 9: Place unbudgetable studies for potential sites in Increment 9.

(2) Implementation (Construction) phase Increment Definitions:

(a) Increment 1: This increment will include only the minimum implementation processes continuing from PY-1 and is limited to no more than the budget amount for PY-1, by project. Engineering and Design during Construction (EDC) and Supervision and Administration (S&A), of contracts fully funded in PY-1 and before may be included in this increment. Real estate activities for required project lands, easements and right-of-ways may be included. Increment must be performance based with high outputs and consistent with ranking.

(b) Increment 2: This increment will include the activities needed to sustain (not fall behind/not accelerate) the efficient project schedule based on the PMP. The total of the activities included in this

level is not limited by the PY-1 budget. Multiple contracts should be submitted as separate increment requests and shown in priority order by District and MSC Rank. New starts may not be included. Increment must be performance based with high outputs and consistent with ranking.

(c) Increment 3: This increment includes additional capability activities that can be supported by Corps resources. This increment can be viewed as enhancing the project schedule. Increment must be performance based with high outputs and consistent with ranking.

(d) Increment 4: Place new start projects with decision documents (such as, a signed ROD) cleared by the HQ USACE in Increment 4. Increment must be performance based with high outputs and consistent with ranking.

(e) Increments 5-9: Not used.

C-4-9. P2 Requirements.

a. P2 will be used for developing the PY budget for FUSRAP.

b. This section provides guidance for each program, but there are certain common structures for each program that will be represented within PPM. The program consists of a set of projects that are included in the budget. These projects consist of a set of activities that are required to fulfill the purpose of the project. For a project in FUSRAP, these activities are required to complete CERCLA phases for that project during the budget year. The activities within these projects require resources. These resources are labor, contracts, travel, supplies and materials, etc. The total cost of supplying these resources for a given activity represents the budget amount that the activity requires within the budget. The total cost of all activities represents the total budget required by the project.

c. The common structure of project – activities – resources is consistent across all programs and provides a hierarchy for summarizing the program as a whole. The performance based budget process also requires a different view of the budget by business. To accommodate this view of the program, each activity is assigned to a business. The tagging of each activity by business allows a view of the budget by business as well as program.

d. Identifying the activities that are part of the budget provides a level of detail and classification to help answer questions by all the various stakeholders for the Corps budget.

e. The instructions that follow describe the specific tasks that must be done to develop the PY budget for Corps FUSRAP projects using PPM:

(1) General Directions.

(a) Project managers must assign a program code, if one is not already assigned. The program code must be the six character CWIS code that has been assigned in PRISM for the project. If the project is new and does not have a PRISM created CWIS, the P2 Project number is to be assigned as the CWIS and program code. If multiple P2 projects have been created from one CWIS, then each P2 project must be assigned the same program code. The program code will allow proposed budgets in P2 to be matched to PRISM and CEFMS. A P2 OP local configuration manager has the permission to add the program code to a project.

A current list of program codes is available to select in Oracle Projects. The program code can be added after the budget activities are added to a P2 project.

(b) Each program manager will direct a LCM to create a separate WBS for budget development. The WBS should be named Budget. The WBS should be "Inactive" so that proposed budgets will remain in PM alone until ready for transfer to Oracle Projects. Additional child WBS levels can be added if needed to help prepare the budget. At a later date, the WBS will be marked as "Planned" so that the budgets can be transferred to OP. The proposed budgets will not be transferred to CEFMS.

(c) Each project manager must add the activities and resources needed to complete PY work. This document will guide the content of the work added to P2. All work will be described as one or more activities that require resources to complete.

(2) Budget Data Required for FUSRAP. The following is a brief description of the budget data elements required:

(a) Program Code: The Program Code links the CWIS used to identify FUSRAP projects in the Civil Works budget with the P2 project. In most cases, there will be only one P2 project per CWIS, but there are many cases where there are two or more P2 projects per CWIS. Assigning the program code to each P2 project allows a matching of CWIS to P2 projects. A new code has been added to P2. It is called WBS CODE (OVERRIDE). For WBS's that are not showing up properly, PM's can assign this code at the WBS to resolve any UNKNOWN WBSs. The P2 team will have to assign a code on each of the WBS's so they show up properly in OFA.

In Oracle Projects, these codes would need to be defined on each project:

FUSRAP SITE ID NO: Defines the FUSRAP site location
PRIMARY BUSINESS PROGRAM: ENV - FUSRAP
REGULATORY DRIVER: CERCLA

(b) Project ID: This is the P2 project ID assigned when the project is created in OP.

(c) Project Name: This is the P2 project name.

(d) Primary Business Program: The primary business program is Civil Works Environmental -- FUSRAP.

(e) Civil Works FY14 Funding Increment: This data element identifies the business funding increment for each activity. Each activity must be assigned to one and only one increment. The data element, CW FY14 Funding Increment, is used to assign the increment number to each activity. This code will be used to identify an activity as a FY14 budget activity, and will be used to extract FY14 budget activities for both PRISM and OFA. Please do not assign this activity code to any activities that are not part of the FY14 budget. This data element is similar to the funding requirements for FY13.

(f) WCC – CEFMS (Civil Works): The project manager must assign each activity to a work category code.

(g) Activity ID: The activity ID is an alphanumeric code assigned to each activity. The code must be unique within each project.

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- (h) Activity Name: This data element describes the work that will be done under the activity.
- (i) Task Organization: The task organization is assigned to each activity. The purpose of the task organization is to represent the office where non-labor dollars are scheduled and potentially costed.
- (j) Budgeted Total Cost: The budgeted total cost is the sum of the cost of the budgeted amounts for each resource assigned to an activity. All resources required to complete the activity must be entered for each activity to get a correct total.
- (k) Start: This is the expected start date for the activity.
- (l) Finish: This is the expected finish date for the activity. For the FY14 budget estimates, the resources for each activity within the limits of the fiscal year must equal the appropriate budget amount.
- (m) Ranks – Project, District, Division, Headquarters: These four data elements can be used to specify a rank for each activity within the project, district, division, or Corps. Ranks are not strictly used in the new performance based budget, but these data elements are available for use by each district or MSC, if desired.
- (n) Type of Funds: The type of funds describes the appropriation and category/class. This field is usually set at the WBS.
- (o) Type of Funds (Override): This data element overrides the Type of Funds. Some projects may receive multiple types of funds. The override can be used to set the type of funds for some activities.
- (p) Area of Responsibility: This data element is set for each project and is the same as the EROC that had been assigned in ABS.
- (q) Activity Justification: There is a notebook element called work package justification that must be used to record the justification for an activity. The justification can be “pasted” into the Work Package Justification notebook topic from any Windows document. The term “work package” is a holdover from ABS.
- (r) Additional Activity Codes: There may be additional activity codes added to classify an activity. These activity codes will be used to identify special interest codes that may be added to the budget EC.
- (s) Budget Data Review: Each District and MSC Program Managers, Business Line Managers, Division Chiefs, Commanders, and other interested parties can begin review of the PY budget data as soon as it is added by the project manager. Each District and MSC will likely have their own processes to review budget data. Much of the review can be done using Primavera Project Manager and some can be done using Oracle Financial Manager. Budget reports will be developed to show detail and summary data needed to review the budget.
- (t) Evaluation of Budget Increments: At the end of the review and approval process for each MSC, the budget data will be extracted. The level of detail of the data, either project-business-increment or process-business-increment-activity, will be determined by the HQ Business Line Manager. Once the data is extracted, each MSC will be responsible for adding performance measure data for each increment. HQ will evaluate each increment in the business area and set the overall rank of each increment.
- (3) Milestone Data Requirements.

(a) In keeping with the Civil Works Program Integration Division initiative of tracking milestones for projects, three tracking goals have been identified for FUSRAP:

- Eligibility Determination - The leading indicator for this goal is the completion of the PA/SI which will be "ENF 1". The milestone is the start of the remedial investigation (RI). This milestone is identified as "ENF 2".
- Remedy Selection - The leading indicator for this goal is the completion of the RI which will be "ENF 3." The milestone is the signing of the Record of Decision (ROD). This milestone is identified as "ENF 4".
- Remedial Action (RA) Completion - The leading indicator for this goal is the awarding of the initial construction contract, "ENF 5". There are two milestones identified for this goal: (1) the completion of the RA (identified as "ENF 6") and (2) financial project closeout (identified as "ENF 7").

(b) Schedules will need to be developed and entered into P2 for these goals and milestones, as applicable from the current project phase to project financial completion/close-out. This information will be entered in the same format as the performance measure data requirements.

C-4-10. J-Sheet Requirements. Districts will be required to submit a justification fact sheet (J-Sheet) for each project. The J-Sheet will be due according to the schedule in TABLE 2 in the MAIN part of this EC. J-sheet format will adhere to the following sample.

ILLUSTRATION C-4.1
FUSRAP J-Sheet Template



Illustration C-4.1

APPENDIX D

Flood Risk Management

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APPENDIX D

Flood Risk Management

D-1. Background.

a. The purpose of the Corps' flood risk management reduction mission is to reduce the threat to life and reduce property damages from riverine and coastal flooding. Corps' flood and coastal storm damage reduction projects include structural and non-structural measures. The Corps is an integral part of Nation's efforts to manage flood plains, and maintain and operate aging water resources infrastructure. Execution of the flood risk management program serves to integrate and synchronize programs and activities within the Corps and with counterpart activities of the Department of Homeland Security, Federal Emergency Management Agency (FEMA), other Federal agencies, state organizations and regional and local agencies.

b. The Corps, and the Nation, acknowledge that floods cannot be controlled, nor damages totally prevented. Therefore, flood damage reduction projects are studied in a watershed context, then formulated, and implemented to reduce risk.

D-2. Purpose. The flood risk management program purpose is to lead national collaborative, comprehensive and sustainable flood risk management practices that reduce flood risk to the public, property, and the environment, and to integrate and synchronize the ongoing, diverse flood risk management projects, programs and authorities of the Corps and its counterparts.

D-3. Civil Works Program Objectives.

a. The Civil Works (CW) Strategic Plan 2011 -2015 dated September 2011, has an overarching strategy of integrated water resources management that utilizes a variety of approaches to manage risk and reduce damage that includes a systems approach, increased collaboration and partnering, risk-based decision making and communication, innovative financing, adaptive management, and state-of-the-art technology to address the Nation's water resources needs.

b. Preparation of the FY 14 Budget Request supports the ongoing effort to evolve linking the budget to performance measures. Table D-1 presents program objectives, performance measures and/or performance ranking and rating criteria that support the CW program objectives and performance measures for Flood Risk Management (FRM).

c. Multiyear Programs. The Civil Works Five and Ten Year Development Plans present an overview of the funding required for the Civil Works program over a ten-year period. The Five Year Development Plan (FYDP), a standalone document, is based on a subset of the 10 year plan and provides results that contribute to achievement of the strategic goals and objectives in the Civil Works Strategic Plan (see paragraph 12 in the MAIN part of this EC). The multi-year plans for the FRM business line provides a regional (system and/or watershed) management tool for use in accomplishing the Corps' flood risk management mission, while providing the budgetary framework necessary for program development. It supports objective evaluation, planning, design, construction, and operations and maintenance phases of new, continuing, and existing projects within the three major appropriations and the Mississippi River and tributaries (MR&T) program.

d. USACE has established the Dam Safety Program to ensure continued safe operation of USACE dam infrastructure. As a self regulated dam owner, it is crucial that a minimum standard of care is employed to protect the downstream public and benefits of the dam along with avoiding the associated infrastructure, environmental, and economic consequences of a potential dam failure. The program includes both routine actions (monitoring, recurring dam maintenance, training, operating interim risk reduction measures,

emergency preparations and inspections) and non-routine actions (studies, major maintenance, interim risk reduction measures, and construction repairs). The combined routine and non-routine program components are important long-term investments to minimize risk to the public and maintain the benefits of the structure. The holistic USACE portfolio of dams shall be considered for non-routine risk informed prioritization, versus regional or district rankings. In cases where projects pose unacceptable risk to public safety (DSAC I,II,III), approved interim risk reduction measures (IRRM) shall be budgeted and implemented. Special coordination efforts with the district dam safety office is required to prioritize IRRM actions based on Dam Safety Action Classification (DSAC) status and the ability of the IRRM to reduce project specific risks.

e. USACE has established the Levee Safety Program to reduce inundation risk to life, the economy, and the environment within the levee area-paramount among these is life safety. This program is developing a levee portfolio risk management process that will assess and recommend risk reduction measures for levees with safety issues.

f. Bridges. Bridges are vital to the nation's highway and transportation systems, especially high-level highway bridges over waterways and canals. Bridges are also mission critical for flood risk management projects as well as for public access in our recreation and environmental stewardship lands. See Annex III, paragraph III-2-6 for further guidance on bridges.

D-4. Performance Measures.

a. Investments in flood risk management infrastructure support the investigation of problems and development of alternatives, timely implementation of authorized projects, proper inspection of Corps and local projects, preventative maintenance or facility modernization or improvement, improvements to ensure the reliability and safety of projects, adequate data collection or improvements to increase operational efficiencies. The purpose of this budget guidance is to ensure the development of convincing rationale and justification of the budget request to accomplish the goal of reducing flood risk while meeting prescribed targets.

b. A national perspective of existing and proposed water resources infrastructure is essential to ensure that available funds provide the greatest public benefit for the investment. Effective risk management requires an inventory of each class of assets, standardized condition assessment, and a method to evaluate the reliability of these assets and consequences of unsatisfactory performance. Risk management evaluates and prioritized the risks identified during the assessment process and implements those that provide the most significant reduction to risk.

TABLE D-1 Performance Measures and Budget Ranking Criteria		
Strategic Goal/Objective	FRM Priority Investment Objective	Metric [Metric Column Number]
1.2, 2.1, 2.2, 3.2, and 3.3	Conducting and advancing studies, PED on project with high potential life risk and/or damage reduction benefits (I)	POPULATION AT RISK [61] POPULATION AFFECTED [62] Combined Risk Factors [61-66] BENEFIT TO COST RATIO – only for PED [54] FRM AA BENEFITS [60]
2.1, 2.2, 3.2 and 3.3	Constructing FRM projects with the highest economic and life safety benefits (C)	POPULATION AT RISK [61] POPULATION AFFECTED [62] Combined Risk Factors [61-66] BENEFITS COST RATIO [54] FRM AA BENEFITS [60] LEVEE SAFETY ACTION CLASSIFICATION [79,80] RELIABILITY-SHORE PROTECTION CONDITION [64] LEVEE SAFETY ACTION CLASSIFICATION [79,80]
1.2, 2.4, and 3.1	Initiate and complete dam safety projects (C), prioritized on life safety risks. Conduct dam safety, seepage or static instability studies (C)	DAM SAFETY ACTION CLASSIFICATIONS (DSAC) [77,787] RELATIVE RISK VALUE [34,35,38,39] POPULATION AT RISK [61] POPULATION AFFECTED [62] BENEFITS COST RATIO [54]
1.2 and 3.1	Implement levee safety program to efficiently assess and support risk informed investments (OM)	Percent of all required levee screenings that can be accomplished with a given work increment [76] Percent of all required levee inspections that can be accomplished with a given work increment [76] LEVEE SAFETY ACTION CLASSIFICATION [79,80]
1.2, 2.1, 2.4, 3.1, and 3.2	Efficiently fund operation of Corps FRM projects to maximize investment (OM)	% OF TIME AVAILABLE [75] O INDEX [70,71,72,87] % OF INSPECTIONS [76] POPULATION AFFECTED [62]
1.2, 2.1, 2.4, 3.1 and 3.2	Maximize investments in maintenance to ensure that these projects will perform as designed (OM)	CONDITION, CONSEQUENCE, RELATIVE RISK VALUE [32-39] WITH INCREMENT CONDITION ASSESSMENT CLASS [36] % OF DESIGN LEVEL AVAILABLE [74] M INDEX [70,71,73,88] POPULATION AT RISK [61] LEGAL MANDATES [81]

c. Water resources infrastructure is maintained through periodic inspections to determine its effectiveness and reliability. Effective and efficient funding for incomplete projects ensures benefits are achieved as soon as possible. Interim operational and structural measures are considered to mitigate risks until permanent solutions are identified. A life cycle approach to asset management distributes investments between routine monitoring and maintenance, studies, interim actions, repairs, and new construction starts. In some cases decommissioning may be recommend to reduce risks associated with unsatisfactory performance. FRM priority goals, budget objectives and ranking criteria have been established to support efficient funding for the FY 14 program. Each of the objectives and criteria demonstrates that each budget item contributes to the CW objectives and the FRM priority goals.

d. Priority Goal . Responding to the President's challenge to deliver a government that works well and is transparent, all Federal agencies have developed priority goals that will be regularly reviewed for progress and reporting of performance results to the public quarterly via the PERFORMANCE.gov website. Each of the USACE Business Lines have developed priority goals related to the business line mission area.

(1) The FRM Business Line priority goal statement for FY 12 and FY 13 is "Reduce the Nation's risk of flooding that places individuals at risk of injury or loss of life and damages property. By 30 September 2013, reduce at least 10 Dam Safety classification ratings, conduct at least 600 levee risk screenings, and improve the condition rating for at least 15 high consequence projects that have failed or have inadequate condition ratings". These priority goals will evaluate our performance related to the dam & levee safety programs, and our implementation of maintenance work budgeted on our FRM projects that result in overall project condition improvements. It is anticipated that this priority goal statement will continue in FY 14 and will be consider for priority funding in FY 14 during the budget prioritization process.

(2) The FRM priority goals for FY 14 are:

(a) The Dam Safety Program's priority goal is to minimize the risk of dam failure at Corps dams with continuous monitoring and implementation of interim and permanent measures to allow safe operation for design loading conditions.

(b) The Levee Safety Program's priority goal ensures the implementation of the levee safety initiative to inspect, assess and classify the condition for the Nation's levee systems covered in the Corps levee safety program.

(c) The FRM Operational condition priority goal ensures that the Corps FRM projects will be maintained to acceptable condition ratings to ensure that the projects will reliably provide their authorized flood damage reduction benefits.

e. OFA Data Supporting FRM Priority Goal:

(1) Dam Safety Metrics. Zero (0) catastrophic dam failures due to diligent monitoring, evaluation, and risk reduction measures. Dam Safety study and risk reduction actions will reduce five (5) Dam Safety Action Classification (DSAC) assignments.

(2) Levee Safety Metrics. Complete 125 periodic inspections and 300 levee screening. This includes communicating results to the levee sponsor and community. Collect available levee information for non-Corps program levees in 3 additional states focusing on those states with existing databases.

(3) FRM priority goal for O&M. To formulate the priority goal for O&M we will rely on OFA data; PRIOR CONDITION ASSESSMENT CLASS, PRIOR CONSEQUENCE CATEGORY, PRIOR RELATIVE RISK VALUE (1-25), PRIOR RELATIVE RISK VALUE (1-5), WITH INCREMENT CONDITION ASSESSMENT CLASS, WITH INCREMENT CONSEQUENCE CATEGORY, WITH INCREMENT RELATIVE RISK VALUE (1-25) and WITH INCREMENT RELATIVE RISK VALUE (1-5).

(4) Follow the guidance in the appendix for the condition assessment and consequence category metrics. The OFA data will auto populate based on these input during the budget development. The budget data submitted will be used to determine the priority goal prior to the execution year. At the end of the year, by data call, MSC will report the status of achieving these goals.

D-5. Budget Increments.

a. Budget increments have been established to achieve the objectives shown in TABLE D-1 and to ensure uniformity within the FRM business line. Budget increments must reflect the eligibility criteria described in the following paragraphs. These increments, in conjunction with the business line budget objectives and ranking criteria, assist in making informed budgetary decisions. Multiple work items may be identified within each budget increment for a project. Each additional work item and each additional funding increment should represent increasing levels of discrete logical project execution that contributes to the program goals. The project capability is the summation of all the work items and increments for each project.

b. Investigations Increments. For a description of the FRM budget increments for the investigations appropriations refer to ANNEX I of this EC. All Programs, Projects, or Activities in the budget request for ongoing studies or meaningful portions of PED, and for new phases of studies, will be placed in the proper increments and will be included in an MSC prioritized program. Amounts and priorities for each increment must be justified based on the performance measures and ranking criteria displayed in TABLE D-1. There may be more than one budget line item for a study.

c. Construction Increments. For a description of the FRM budget increments for the construction appropriations refer to ANNEX II of this EC. Additional guidance on developing budget increments within the FRM business line follows:

(1) Each contract must be shown separately, by increment, to allow individual funding decisions based on the performance metrics and must be shown in priority order by District and MSC Rank.

(2) Except in the case of continuing contracts (see the Main part of this EC, paragraph 10), the PY budget amount for dam safety projects will be equal to the PY capability. Show future funding needs in the remarks column, ie. FY15 expenditure is \$13.5M, FY16 expenditure is \$2.7M and FY17 expenditure is 1.3M.

(3) Continuing Dam Safety construction work packages, at projects identified as DSAC I and II, shall be budgeted in Construction Increment 2 unless there is an ASA approved continuing contract requirement, then it can be included in Increment 1. Dam Safety construction work items at projects identified as DSAC = III shall be budgeted in Construction Increment 3. New start Dam Safety construction projects must have an approved Dam Safety Modification reports prior to September PY-2 to be budgeted for in the PY. Work packages for dam safety studies and construction requested under the construction dam safety wedge will be coded with the ACTIVITY CODE of SS or DP and prioritized according to construction increment guidance.

(4) Construction contracts for initial nourishment construction of authorized shore protection projects are considered "new starts" and may be budgeted in Increment 3. Contracts for scheduled renourishments may be budgeted as continuing projects in Increment 2 if the PY coincides with a scheduled re-nourishment.

(5) If beach nourishment or re-nourishment projects include a mitigation component to restore sand lost solely due to the impacts of a Federal navigation project, that mitigation component should be budgeted

under the Navigation business line in the Construction appropriation and reflect the appropriate Construction Increment; or the appropriate Increment in the Continuing Authorities Program.

d. Operations and Maintenance Increments. For a description of the budget increments for the Operations and Maintenance appropriations refer to ANNEX III-2 of this EC. Additional guidance on developing budget increments within the FRM business line follows:

(1) O&M Increment 1. Only critical routine and cyclical for the minimum level of operation may be included in Increment 1 for all MSC's O&M requirements as identified below.

(a) Minimum level of routine and cyclical service operations costs (usually dams) – may not be full 24-hour operation on site.

(b) Minimum level of routine and cyclical service maintenance (usually dams) – not all maintenance needs.

(c) Dam Safety Program. Only critical routine and cyclical dam safety activities to ensure USACE meets minimum fundamental safety standards as determined by the District Dam Safety Officer (DSO) may be included in Increment 1. The DSO recommendations will be provided to the FRM business line manager. Non-critical dam safety activities shall be included in Increments 3 or lower. Priority and costs for the tasks vary for each project, due to differences in project age, size, reservoir operations, construction methods, features and performance history. Consequently, each District is responsible to develop program costs based upon their unique projects. Critical minimum routine activities may include the following as applicable:

- Monitoring and Evaluation; Program Coordination, Instrument Data Collection and Management, Data Review and Analysis, Instrument Maintenance and Calibration, Survey Monitoring Data Collection and Management.
- Inspections; Annual Inspections, Periodic Inspections and Assessments, Special Inspections for Project Features (e.g. Hydraulic Steel Structures, Scour surveys, and stilling basin inspections).
- Modified Periodic Assessments (PA), which expands the scope of currently scheduled Periodic Inspections (PI), were initiated in FY 10. Approximately one half of the PIs scheduled for FY 14 will be budgeted as Modified PAs and will include labor and development costs to conduct a Potential Failure Mode Analysis (PFMA). The district is responsible for funding the PFMA and PI activities for their district PI Team. The Risk Management Center will provide labor and travel funding for the Risk Facilitator and Risk Cadre member who are both independent of the district shall be utilized to lead PFMA activities.
- Routine Dam Safety Maintenance; Relief Well Maintenance, Drain Cleaning, Vegetation Control, Lubrication of Mechanical Equipment.
- Emergency Preparedness; Annual update of EAP notification sub-plans, Periodic updates to EAP's as needed, Dam Safety Training for the Operating project personnel every five years, Emergency Exercises.
- Levee Safety Program Activities:

Program management.

Coordination efforts with public sponsors or stakeholders (e.g. inspection results, screening results and (interim risk reduction measures, etc).

FEMA coordination and support.

Minimum critical Routine and Periodic Inspections at pre-defined inspection intervals for Federal authorized/locally operated and maintained levee systems based upon current program implementation guidance and regulation. (Note: Routine Inspections, (also called Initially Eligibility Inspections or Continuing Eligibility Inspections), for non-federal RIP levee systems shall be funded out of FCCE. No Periodic Inspections will be conducted on non-federal RIP levees. Periodic Inspections that were not funded under ARRA may be budgeted starting with highest consequence levee systems first. See Annex C – Operations and Maintenance – Levee Safety Program for inspection frequency for Periodic Inspections.

Maintenance and updating of the National Levee Database as needed to maintain data accuracy and freshness. To include uploading all inspection reports and data needed to support performance metrics.

Scheduling of reservoir operations, including necessary instrumentation, etc.

Cooperative gauging program costs.

- Water management program costs include update of water control manuals, limited to coordination, and dam tender instruction costs.

- Critical routine operation and maintenance requirements for Critical Infrastructure Security Program (CISP) projects.

(2) O&M Increment 2. Only critical non-routine for the minimum level of operation may be included in Increment 2 for all MSC's O&M requirements as prioritized below.

(a) Critical ongoing non-routine maintenance activities.

(b) Critical non-routine dam safety activities to ensure USACE meets minimum fundamental safety standards.

(c) Levee Safety Program, Critical non-routine activities to include:

- Screening of federally authorized/locally operated and maintained inventory using the web-enabled Levee Screening Tool. (Note: For nonfederal RIP levee systems, levee screenings should be funded from FCCE).

- Evaluation of non-federal sponsor requests for project modifications such as alternations, improvements, vegetation variances, or system-wide improvement frameworks, in accordance with Corps policy and guidance for such requests.

- Design deficiency reports.

- Levee safety training and knowledge sharing activities (both virtual and in-person), such as related training courses and Community of Practice meetings.

(d) Critical sedimentations surveys – limited to projects where sedimentation would have imminent adverse impact on flood control storage.

(e) Studies and surveys for updating flood damage functions for oldest 10% of projects.

(f) Legally required water quality modeling.

(g) O&M for environmental compliance for threatened/endangered or other federally recognized significant species.

(h) Update drought contingency management plans in areas of severe droughts.

(i) Minimum critical non-routine requirements for Critical Infrastructure Security Program (CISP) projects.

(3) O&M Increment 3. Only additional minimum critical routine and non-routine activities for the up to 25% above the minimum program may be included in Increment 3 for all MSC's O&M requirements as identified below.

(a) Updating project O&M manuals or other program requirements not otherwise indicated above.

(b) Additional critical dam and levee safety activities may be included in Increment 3 or lower.

(c) Additional minimum routine and non-routine requirements for Critical Infrastructure Security Program (CISP) projects.

(4) O&M Increment 4 and 5. Additional increments (up to Increment 5) for both operations and maintenance may be included, but it must be clearly shown what the additional funding would accomplish. Dam Safety work items identified as DSAC = IV and V be budgeted in Increment 5 as capability level funding priorities.

e. Increment Aggregation. The OM items will be aggregated by increment and by phase code as described in ANNEX III-2. To keep individual line items from being aggregated during transferring there will be an ACTIVITY CODE to allow lines to transfer individually.

f. Dam Safety in O&M. Normal O&M activities that impact on the safety of the structure but are not specific dam safety study activities (WCC=60233) should continue to be requested in O&M based on increment guidance.

g. Joint Activities. Include requests for Joint Activities at project's when FRM is the predominant business line. Joint Activities for Cat/Class 300 projects must be requested thru the HYD business line (see Annex III-2 in this EC).

h. Dam Safety Interim Risk Reduction Measures (IRRM). Plans and Approved Dam Safety Interim Risk Reduction Measures will be identified in budget submittal as a separate work package. For IRRM work funded from the O&M account, the WCC is 61230 for flood risk management, 61130 for navigation, 61330 for hydropower, and 61630 for joint activities. See Annex III – Operations and Maintenance. IRRM work packages will be identified with the ACTIVITY CODE of SI. The IRRMs could be routine and/or non-routine activities and should be budgeted in Increments 1, 2, 3 or 4 as appropriate to address deficiencies that pose unacceptable risks to public safety. Water Control Plan and Emergency Action Plan Updates may be considered as critical Interim Risk Reduction Measures. Examples of routine and non-routine IRRM are:

(1) Increased monitoring for critical failure mode is a routine activity (Increment 1).

(2) Stockpile emergency materials for critical failure mode is a non-routine activity (Increment 2 or 3).

i. Budget Justification. State what the increment amount accomplishes (what are we getting for this amount of investment) and provide the justification or benefits of the incremental investment. Additional increments may be included but must clearly show what the additional funding would accomplish. In

general, the initial increment will be to continue existing contract/proceed at existing level of effort, and additional increments would be to accelerate the work.

j. Levee Safety Program Activities:

(1) For levee systems in which USACE operates and maintains or has major maintenance responsibilities, Levee Safety Program activities such as routine and periodic inspections; levee screening; emergency notification; emergency action plan updates; and implementation of interim risk reduction measures for these levee systems should be included in the O&M allocation of the project with these specific levee systems.

(2) Funding for the National Flood Insurance Program (NFIP), Levee System Evaluations (or otherwise known as Levee Certifications) for levee systems in which USACE operates and maintains or has major maintenance responsibilities may be included in the O&M budget request for these levee systems and budgeted in Increments 3 or lower. Levee System Evaluations for the NFIP (otherwise known as Levee Certifications) for Levees operated and maintained by non-federal sponsors shall not be budgeted for in either ICW or FCCE.

(3) Districts should develop levee safety and inspection activities under ICW in increments by state and indicate in the REMARKS field(s), the total number of projects in the state and the total to be inspected (both Routine and Periodic Inspections) with this budget increment. For all ICW budget increments the PHASE CODE column should be coded O and the ACTIVITY CODE should be coded OL. Work packages for levee safety Base Condition Risk Assessments and Levee Safety Modification Reports (for USACE O&M levee systems only) should be coded with LS in the ACTIVITY CODE. Work packages for maintenance or repair work on levees operated and maintained by the Corps (Federal Projects) should be coded with ML in the ACTIVITY CODE column.

D-6. Budget Ranking. Ranking of the program is based on performance measures and risk-informed indices as indicated in TABLE D-1 and detailed information provided in the FRM data spreadsheet. Ranking consideration will also be consistent with the following priorities. Those numbers in brackets as indicated in TABLE D-1 are the metric column numbers identified as the primary metrics used to formulate the budget, so the QA/QC of this data is critical.

a. Budget ranking for studies in the Investigations account should be prioritized in advance order of the highest performing projects; with a focus on efficiently continuing ongoing budgeted studies; funding study completions; and funding ongoing PED at a level commensurate with available funds. See Annex II of this EC for guidance on budgeting for studies in the Investigations account.

b. Budget ranking for projects in construction should be prioritized in order to efficiently advance ongoing budgeted high performing projects; funding projects for construction completion; advancing ongoing projects with significant risk to human safety; and funding projects with mitigation or environmental requirements.

c. Dam safety projects will be ranked using the DSAC classifications as established by HQUSACE. These classifications have been determined for USACE dams which have undergone Screening for Portfolio Risk Assessment (SPRA) by agency dam safety experts, and concurred with by USACE Senior leaders. Approved Dam Safety Modification construction for DSAC I dams will be funded as defined in paragraph D-5.c.(2) above. On going construction on DSAC II projects will be funded at the maximum level of funding available to efficiently advance construction. For further information see Sub-Annex II-3 Construction - Safety of Dams Project.

d. Operation and Maintenance projects will be funded at a sufficient level of operations to insure minimum critical project operation.

e. New start studies and new start construction projects will be considered for budgeting in order to begin work on the highest performing studies and projects based on available funding.

f. Work items in Increment 1 receive priority consideration for budget development, and additional increments are prioritized and added sequentially to the program based on MSC rank and the relative efficiencies and effectiveness in accomplishing approved performance objectives, goals and missions.

g. Systems or Watershed studies and/or projects are considered for the budget based on the following criteria:

(1) Considers water resources development and management in the context of multiple purposes and facilitates the evaluation of comprehensive and integrated alternatives.

(2) Improves opportunities for public and private groups to identify and achieve common goals by unifying on-going efforts and leveraging resources.

(3) Identifies a combination of recommended actions (a System or Watershed Management Plan) to be undertaken by various partners and stakeholders to achieve local, tribal, regional, and national water resources management goals identified in the study and may or may not identify further budgetable Corps studies or implementation projects.

(4) Leverages resources, including cost shared collaboration and integrates programs and activities within and among Civil Works programs, and with other Federal, tribal state and non-governmental organizations, to improve consistency and cost effectiveness.

D-7. Data Required. The following section provides reference to the common data fields applicable to all Business Lines and specific definitions and instructions for the data fields specific to the FRM business line.

a. Data Input AAR. We are still having problems with the data input on several metrics caused by the lack of knowledge and mis-intrupation of the definitions of the metrics. This paragraph describes the problems with data input, and Paragraphs b and c are the definitions for each metric.

b. Common Data Fields in all Business Lines. The common metrics in Columns 1-31 are defined in the Glossary at the end of this EC. Phase Activity Coding for Watershed Assessments are required only for Investigations, excluding PED. The study may produce a watershed or regional needs analysis (watershed assessment in accordance with Section 729) that identifies opportunities and impediments; a range of alternatives; or a regional or basin-wide strategy that identifies implementable actions for the future for some or all of the stakeholders within the watershed or region; or result in a feasibility report for authorization. A work package for a reconnaissance level watershed assessment in accordance with Section 729 will be given the phase activity code of WA. A feasibility level watershed assessment work package in accordance with Section 729 will be given the phase activity code WF.

c. Below are data fields with common errors in the OFA metrics. Use this information along with the definitions in Paragraph D-7.d. below to enter metric data into OFA.

(1) PHASE STATUS (22). Status of the Phase listed in Column 22 will be indicated with a letter code NS = New Start; NP = New Phase; CN = Continuing Phase; and LY = Last year of phase. See TABLE 3 in the MAIN part of this EC for definitions. The initiation or resumption of a recon, PED or construction is a NEW START so use the letter code NS. The initiation or resumption of a feasibility study is a NEW PHASE so use the letter code NP. If a study is completing one phase and starting a new one in the PY (e.g. finish

Feasibility and start PED), each should be a separate entry (Feasibility LY and PED NS). In construction there is only one phase, so the first year would be NS, subsequent years would be CN, until the whole project is completed and you will no longer need funds under this line item then enter letter code LY.

(2) PHASE COMPL (23). Required for all items in all accounts. Enter the fiscal year the phase for which funds are being requested is scheduled to complete. This is a 4-digit numeric field. The Reconnaissance phase ends with execution of a Feasibility Cost Sharing Agreement, or a report recommending no Federal action. For budget development, use the date of the Division Engineer's Transmittal of the report to HQ as the end of the Feasibility phase. The PED phase ends with completion of the first set of plans and specifications and execution of the PCA/PPA (project partnership agreement) . Construction completion is defined as physical completion with the project turned over to the non-Federal sponsor to operate and maintain. For items in the O&M account, enter the PY unless the requested funds are scheduled to be carried over. For APPROP ABBREV "OM" and "MRT-OM", N/A will be auto-populated for the EN-Stewardship, RC and WS business lines. For APPROP ABBREV "OM" and "MRT-OM", the PY will be auto-populated for the EN-Restoration, FRM, H and N business lines.

(3) PRIOR CONDITION ASSESSMENT (32) and WITH INCREMENT CONDITION ASSESSMENT (36). In many cases the prior and with increment condition assessment for O&M work packages were not entered correctly making it difficult to determine how the work packages impacted the overall project condition. When entering this data pay attention to the instruction in paragraph D-7.d.(2) of this appendix.

(4) LAST AMOUNT BUDGETED (42) and LAST AMOUNT APPROPRIATED (44). The amount shown should be in dollars rounded to thousands.

(5) TOTAL STUDY COST (45) and TOTAL PROJECT COST (46). All reconnaissance and feasibility studies should have a total study cost in dollars rounded to thousands. All PED and construction phases should have a Total Project Cost equal to the design plus construction of the project in dollars rounded to thousands.

(6) BALANCE TO COMPLETE (48). Cost should be in dollars rounded to thousands. The Balance to Complete should decrease by the amount of each increment when multiple increments are submitted. Each incremental line item should have a different Balance to Complete.

(7) LAST YEAR CONSTRUCTION FUNDS WILL BE REQUESTED (49). If "2014" is entered, that means no construction funds are required after "2014" and the line item can be removed from future budget submissions. A "2014" entry means the Phase completion should be 2014 also.

(8) POPULATION AT RISK (61) and POPULATION AFFECTED (62). This metric is entered as number of people rounded to thousands.

d. FRM Business Line specific Data Fields. The FRM metrics in Columns 32-89 are defined below, listed by data field column #:

32. PRIOR CONDITION ASSESSMENT CLASS. Enter the prior CONDITION CLASSIFICATION value (A, B, C, D or F) of the FRM facilities as a whole based on a risk assessment assuming the PY work is not completed. The first increment will be the condition attained in the prior year budget. The second increment assumes that work funded in the FY 12 Appropriations and the work in the FY 13 President's Budget will be completed. Use TABLE D-3 and TABLE D-7 for determining the Overall Project Condition. TABLE D-2 illustrates how the FRM facility condition, as a whole, should improve with each incremental investment.

33. PRIOR CONSEQUENCE CATEGORY. Enter the CONSEQUENCE CATEGORY value (1, 2, 3,

4, or 5) for the project based on TABLE D-4.

34. PRIOR RELATIVE RISK VALUE (1-25). The value (1-25) determined in TABLE D-5 by plotting the overall project CONDITION ASSESSMENT from TABLE D-7 and CONSEQUENCE CATEGORY values from TABLE D-4. This value is computed by OFA.

35. PRIOR RELATIVE RISK VALUE (1-5). The value (1-5) determined in TABLE D-6 by plotting the overall project CONDITION ASSESSMENT from TABLE D-7 and CONSEQUENCE CATEGORY values from TABLE D-4. This value is computed by OFA.

36. WITH INCREMENT CONDITION ASSESSMENT CLASS. Enter the WITH CONDITION CLASSIFICATION value (A, B, C, D or F) of the project based on a risk assessment assuming the PY work increment is funded and the work is completed. The first increment assumes that work funded in the FY 12 Appropriations and the work in the FY 13 President's Budget will be completed. Use TABLE D-3 and TABLE D-7 for determining the Overall Project Condition. TABLE D-2 illustrates how the FRM facility condition, as a whole, should improve with each incremental investment.

37. WITH INCREMENT CONSEQUENCE CATEGORY. Enter the CONSEQUENCE CATEGORY value (1, 2, 3, 4, or 5) for the project based on TABLE D-4.

38. WITH INCREMENT RELATIVE RISK VALUE (1-25). The value (1-25) determined in TABLE D-5 by plotting the overall project CONDITION ASSESSMENT from TABLE D-7 and CONSEQUENCE CATEGORY values from TABLE D-4. This value is computed by OFA.

39. WITH INCREMENT RELATIVE RISK VALUE (1-5). The value (1-5) determined in TABLE D-6 by plotting the overall project CONDITION ASSESSMENT from TABLE D-7 and CONSEQUENCE CATEGORY values from TABLE D-4. This value is computed by OFA.

40. AMOUNT NEXT CONTRACT. Required for all items in Construction and major rehab. Provide the total amount of the next new contract, including all contract support activities. Enter the total value of the contract in dollars rounded to thousands. An amount for \$34,656,343 would be entered as \$34,656,000.

41. LAST YEAR BUDGETED. Enter the last fiscal year this study, project or operating project was in the President's budget.

42. LAST AMOUNT BUDGETED. Enter the dollar amount, rounded to thousands, of President's Budget for study, project or operating project corresponding to the year entered in the LAST YEAR BUDGETED column. An amount for \$34,656,343 would be entered as \$34,656,000.

43. LAST YEAR APPROPRIATED. Enter the last fiscal year this study, project or operating project received appropriated funds.

44. LAST AMOUNT APPROPRIATED. Enter the dollar amount, rounded to thousands, appropriated (conference report or workplan amount) for this study, project or operating project contained in the appropriation indicated in LAST YEAR APPROPRIATED column. Include only normal appropriations; do not include recovery or other supplemental appropriations. An amount for \$34,656,343 would be entered as \$34,656,000.

45. TOTAL STUDY COST. In the Reconnaissance phase, the TOTAL STUDY COST (TSC) will equal the total cost of the Reconnaissance phase. In the Feasibility phase, the TSC will equal the total Federal and non-Federal cost of the Feasibility phase. In the construction phase during PED, design, construction

or adaptive management, insert N/A. Cost should be entered in dollars, rounded to thousands. An amount for \$34,656,343 would be entered as \$34,656,000.

46. **TOTAL PROJECT COST.** The TOTAL PROJECT COST (TPC) includes the Federal and non-Federal costs of design (including PED), Construction, adaptive management and renourishment. The TPC should be consistent with the fully funded cost in the J sheet. During the Reconnaissance and Feasibility Phases enter the estimated TPC if known, otherwise insert N/A. The TPC should be entered in dollars, rounded to thousands. An amount for \$34,656,343 would be entered as \$34,656,000.

47. **% NON-STRUCTURAL.** Identify those projects that have non-structural components. Enter the % of total project cost that is for non-structural components (0 to 100). The PROJECT DESCRIPTION must include a description of the non-structural features (e.g. Project includes 46 structures removed; 135 homes raised; flood warning system; etc).

48. **BALANCE TO COMPLETE.** The BALANCE TO COMPLETE (BTC) is the FY15 and beyond Federal amount required to complete the study or construction phase. During the Recon and Feasibility phase, the BTC is the remaining Federal TSC to complete these phases. During the design (including PED) and construction phase, the BTC is the remaining Federal amount of the TPC to complete the construction phase. If multiple increments are requested the BTC should vary on each increment based on the amount of each increment. After completion of the construction phase, the BTC will be zero unless there is remaining adaptive management or renourishment identified in the TPC. For beach renourishment projects the BTC should include the federal amount of authorized renourishments. Cost should be entered in dollars, rounded to thousands. An amount for \$34,656,343 would be entered as \$34,656,000.

49. **LAST FY CONSTRUCTION FUNDS WILL BE REQUESTED.** Enter the last year construction funds will be required. This includes authorized monitoring/adaptive management and renourishments funded in the construction account. For beach renourishment projects the last year construction funds will be required should be the year the last authorized renourishment will be constructed. If the project last year is 2014, the budget line item will not be needed in FY15.

50. **FCSA DATE.** The actual or scheduled date of the FCSA signing. If the increment request is to accelerate the phase, this date should also be accelerated.

51. **DESIGN AGREEMENT (DA) DATE.** The actual or scheduled date of the Design Agreement (DA) signing. If increment request is to accelerate the phase, this date should also be accelerated.

52. **PPA DATE.** The actual or scheduled date of the PPA signing. If increment request is to accelerate phase, this date should also be accelerated.

53. **LEVEL OF PROTECTION.** Enter the proposed or design level of protection provided by the project. If not applicable put a N/A in the field and explain in the REMARKS column.

54. **BCR AT 7% RATE.** The BCR is the ratio of benefits to costs of all project purposes, from the last approved report or updated for budget purposes, evaluated at the discount rate of 7%. If the BCR is not reported, put NA in the field and explain why in the REMARKS.

55. **RBRCR AT 7% RATE.** The project's remaining benefits - remaining costs ratio at 7% and price level of the last approved report. Include all project purposes.

56. **BCR – Applicable.** Enter the projects benefits – cost ratio at applicable rate. See main EC paragraph 14.

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57. RBRCR – Applicable. Enter the projects remaining benefits – cost ratio at applicable rate. See main EC paragraph 14.

58. APPLICABLE RATE. Enter applicable interest rate. See main EC paragraph 14.

59. BCR – CURRENT. Enter the projects benefit cost ratio at the current interest rate. See main EC paragraph 14.

60. RBRCR – CURRENT. Enter the projects benefit cost ratio at the current interest rate. See main EC paragraph 14.

61. Level of Economic Update. Choose the level of economic update as Level 1 – Reaffirmation, Level 2 – Benefit Update, Level 3 – Economic Reevaluation (ERR), Level 4- General Reevaluation (GRR or LRR??) or NA. If NA is selected, explain why in the REMARKS column. See the Methodology for Updating Benefit-to-Cost Ratios for Budget Development policy dated 8 Mar 2012 as referred in the main EC paragraph 14.

62. For the Economic Report Update Date of Approval by MSC (yyyy/mm/dd): "Insert the date the report was reviewed and approved by the MSC".

63. AVERAGE ANNUAL BENEFITS (AA BEN). Enter the value of the AVERAGE ANNUAL BENEFITS, computed for all project purposes, that is shown in the last approved report. Amount should be in thousands of dollars and evaluated at the discount rate of 7%. An amount for \$34,656,343 would be entered as \$34,656.

64. AVERAGE ANNUAL COSTS (AA COST). Enter the AVERAGE ANNUAL COSTS based on the last approved report and evaluated at the discount rate of 7%. An amount should be in thousands of dollars. An amount for \$34,656,343 would be entered as \$34,656.

65. AVERAGE ANNUAL DAMAGES (AAD). The expected AVERAGE ANNUAL DAMAGES for the without project condition from the last approved report evaluated at a discount rate of 7%. An amount in thousands of dollars. An amount for \$34,656,343 would be entered as \$34,656.

66. FRM AVERAGE ANNUAL BENEFITS (FRM AA BEN). Enter the estimated FRM AVERAGE ANNUAL BENEFITS for the project from the last approved report evaluated at a discount rate of 7%. Amount in thousands of dollars. An amount for \$34,656,343 would be entered as \$34,656.

67. POPULATION AT RISK. The POPULATION AT RISK (PAR) is defined as the number of people (living, working, or transient), rounded to thousands, within the study inundation area for the 500 year event for studies, or design level flood inundation area for the recommended project in construction. An amount for 34,656,343 people would be entered as 34,656,000.

68. POPULATION AFFECTED. The POPULATION AFFECTED is the number of people (living, working, or transient) rounded to thousands located in the floodplain afforded risk reduction by the Federal project at its design level. An amount for 34,656,343 people would be entered as 34,656,000.

69. RISK-DEPTH. For the design level event for projects in construction or the without condition at the 0.002 annual chance exceedence event for studies - the average depth in feet affecting the most of benefit area.

70. RELIABILITY-SHORE PROTECTION CONDITION. Project condition rating based on the Shore Protection Systems (SPS) reliability rating. (G: Good, I: Intermediate, P: Poor, U: Unconstructed).

71. RISK-WARNING TIME. The amount of warning time, in hours, available to the PAR from when a flood warning is issued. The warning time is generally considered the amount of time from warning issuance to inundation of the benefit area. It is used in conjunction with other risk factors to assess the risk exposure to the population and development if the project is not implemented.

72. RISK-REMARKS. Explanation of the Risk factors. To be used in conjunction with all risk factors to assess the risk exposure to the population and development in the project or study area. Provide additional risk information regarding the population or development that would be inundated or contribute to life loss or damage such as evacuation routes, bridges, demographics of the population, industrial or chemical facilities, etc.

73. % AGRICULTURAL. The % OF AVERAGE ANNUAL FRM DAMAGES (for studies) or benefits (PED, construction or O&M) that are agricultural.

74. REIMBURSEMENT. If this budget request is for reimbursing a sponsor enter Y/N.

75. INITIAL NOURISHMENT. Enter Y, if this is the first sand placement for construction of the project. For each renourishment, enter the cycle number (1 for the first time it is to be renourished, etc).

76. CUMULATIVE DAMAGES. Total damages prevented from the Year CUMULATIVE DAMAGES STARTED to the PY-3 year as reported for the yearly annual flood damage reduction report or other source. Amounts are in thousands of dollars. An amount for \$34,656,343 would be entered as \$34,656.

77. YEAR CUMULATIVE DAMAGES START (YCDS). Enter the year (YYYY) in which the CUMULATIVE DAMAGES record begins on a project.

78. CUMULATIVE OPERATION COST. Enter the CUMULATIVE OPERATION COST, in thousands of dollars, for the project from 2007-2011, in current dollars for the flood damage reduction facilities. The Operation and Maintenance Business Information Link (OMBIL) captures the last 5 years of data to define the current condition of the facility. The data contains the fiscal years 2007-2011 expenditures. The OMBIL data will be provided to all BLM's. An amount for \$34,656,343 would be entered as \$34,656.

79. CUMULATIVE MAINTENANCE COST. Enter the CUMULATIVE MAINTENANCE COSTS, in thousands of dollars, for project from 2007-2011 in current dollars for the flood damage reduction facilities. The Operation and Maintenance Business Information Link (OMBIL) captures the last 5 years of data to define the current condition of the facility. The data contains the fiscal years 2007 -2011 expenditures and will be populated by OFA. The OMBIL data will be provided to all BLM's. An amount for \$34,656,343 would be entered as \$34,656.

80. % DESIGN LEVEL. Percent of design level available is the design level that would be achieved with the incremental investment and the associated work completed. It should be less than 100% if the project is derated for instance with reduced conveyance, pool restrictions or storage limits, seepage, or other reduced levels of protection. Additional maintenance increment investment would show improvement in the % Design Level. If not at 100% explain why in the REMARKS.

81. % TIME AVAILABLE. Percent of time the project is available to perform as designed, or as derated (from deferred maintained, dam safety issues, renourishment issues, etc) and reflected in the % DESIGN LEVEL metric. If the project can perform at the derated level 100% of the time, insert 100%. Use the two metrics consistently to describe the relationship with incremental investments. Additional maintenance increment would show improvement in the % DESIGN LEVEL. If not at 100% explain why in the REMARKS.

82. % INSPECTIONS. Percent of all required inspections (for example by state for ICW), surveys & studies that can be accomplished with this budget increment. In the REMARKS column, show the ratio of funded inspections over total required for periodic inspections, dam safety assurance, hydraulic steel structure, bridge inspections, etc. Example, "This increment includes 1/1 PI, 0/1 DSA, 20/22 HSS, and 1/3 BI." The additional increment requests should show an increase in % OF INSPECTIONS. If not at 100% explain why in the REMARKS.

83. DSAC. For each dam enter the Dam Safety Action Classification (DSAC) rating, i.e. 1, 2, 3, 4, or 5.

84. DAM SAFETY IMPACTS. For dam safety/seepage project - explain impacts and what other purposes (by BL) would be impacted if there was a failure.

85. LSAC. For each levee enter the Levee Safety Action Classification (LSAC), i.e. 1, 2, 3, 4, or 5. Enter NA if the levee system has not received a LSAC classification.

86. LEVEE SAFETY IMPACTS. For levee safety project - explain impacts and what other purposes (by BL) would be impacted if there was a failure.

87. LEGAL MANDATE. Legal mandates, BiOp requirements identified in a ROD, court orders, cultural resource mandates, etc. Enter Y if this increment responds to the mandate, and N if not. In the REMARKS column, cite and describe the legal requirement for all Y responses.

88. PROJECT DESCRIPTION. Describe the main features of the project emphasizing the flood risk management features. Include a description of the non-structural features (e.g. Project includes 46 structures removed; 135 homes raised; flood warning system; etc) if you place a percentage in the non-structural column.

89. BUDGET ITEM JUSTIFICATION. State what the increment amount accomplishes (what are we getting for this amount of investment) and provide the justification or benefits of the incremental investment. Additional increments may be included but must clearly show what the additional funding would accomplish. In general, the initial increment will be to continue existing contract/proceed at existing level of effort, and additional increments would be to accelerate the work.

90. CONSEQUENCES. What is the primary consequence or impact of not funding this incremental investment in this PY. The physical consequences include unsafe facilities, facility non-compliance, loss of service, structural failure, etc.

91. REMARKS. Remarks are for additional critical information or explanations called for in the preceding columns, to support the increment investment. Below are the Column numbers for which an explanation is required.

Column 10 Pair the required mitigation increment with the matching construction increment.

Column 53 If an N/A was entered for the proposed or design level of protection, explain.

Column 54 Explain why the BCR was not reported.

Column 55 Explain why the BCR reported has not been updated within the past 5 years.

Column 56 Explain why AVERAGE ANNUAL BENEFITS are not available to be reported.

Column 57 Explain why AVERAGE ANNUAL COSTS are not available to be reported.

Column 58 Explain why AVERAGE ANNUAL DAMAGES are not available to be reported.

Column 74 Explain why if the project % TIME AVAILABLE is less than 100%.

Column 75 Show the ratio of funded inspections over total required for periodic inspections, dam safety assurance, hydraulic steel structure, and bridge inspections, i.e. This increment includes 1/1 PI, 0/1 DSA, 20/22 HSS, and 1/3 BI.

Column 80 If there is a Yes in LEGAL MANDATE cite and describe the legal requirements.

92. REMARKS (CONT). Remarks are for additional critical information or explanations called for in the preceding columns, to support the increment investment.

93. O INDEX (computed by OFA). The Operations Index (O Index) is computed by OFA using the CUM DAM, YCDS, and CUM O previously input. The O Index will be used to help prioritize the operation activities in the budget.

94. M INDEX (computed by OFA). The Maintenance Index (M Index) is computed by OFA using the CUM DAM, YCDS, and CUM M previously input. The M Index will be used to help prioritize the maintenance activities in the budget.

95. LIFE SAFETY HAZARD INDEX (computed by HQ). The LIFE SAFETY HAZARD INDEX (LSHI) represents the relative potential loss of life caused by a design level flood for the without project condition. For the design level flood, the index factors in the POPULATION AT RISK (PAR), the amount of WARNING TIME available to that PAR from forecasted inundation to actual inundation, and the AVERAGE DEPTH. WARNING TIME is used to compute a factor to estimate the percentage of original PAR that will evacuate the inundated area. The evacuation percentage equation is based on available quantitative research on basic warning dissemination and response relationships. AVERAGE DEPTH is used to compute the average fatality rate that is applied to the population that remains in the impacted area. The fatality rate computation is based on research out of TU Delft and is the same approach used in the Corps' Levee Screening Tool (LST). In the equation, Φ and \ln illustrate that the fatality rate follows a lognormal distribution of the depth, with a mean of 5.2 and a variance of 2.

$$Index = PAR * \underbrace{\left[1 - \left[\frac{1}{1 + e^{4.825 - 0.0425 (WarningTime * 60)}} \right]}_{\% \text{ of people not evacuated}} * \underbrace{\Phi \left(\frac{\ln(Depth * 0.3048) - 5.2}{2} \right)}_{\text{Fatality Rate}}$$

DEFINITION OF EQUATION VARIABLES

Index - LIFE SAFETY HAZARD INDEX

PAR = POPULATION AT RISK

e = Euler's number, the base of the natural logarithm

Φ = factor that estimates the percentage of original PAR that will evacuate the inundated area

5.2 = the mean of the lognormal distribution of the depth

2 = the variance of the lognormal distribution of depth

LIFE SAFETY HAZARD INDEX - The LIFE SAFETY HAZARD INDEX is used to represent a relative assessment of the potential loss of life associated with a project or study area. This index is used to capture the non-monetary (life risk) aspects of flood risk management projects in order to elevate their budget priority and are used when other metrics do not reflect the risk. The index will be computed using the three risk indicator data inputs provided in the appropriate OFA data columns. In addition the new web-based LSHI tool will be used to calculate the LSHI and auto populate the LSHI column OFA in future program years. As a result Districts will complete the web-based LSHI web tool at <http://lshi.usace.army.mil> (Note: this site is not available until after April 16, 2012) for all feasibility studies, PEDs and construction projects submitted for budgeted consideration in FY 14. The web-based LSHI tool will be available for use by the designated data manager(s) for each district on 16 April 2012. Each district will be responsible for requesting a district data manager account for each user necessary to complete and submit all items. All account requests should be submitted to the following email: LSHI@usace.army.mil. Appropriate credentials and username/password information will be distributed directly to each user. To reduce the amount of data entry FY 13 risk data was pre-populated into the LSHI tool. As a result, district data managers will be required to use the web tool to update existing project risk data where appropriate as well as enter risk data for new studies and projects to be recommended for funding in FY 14, then submit each for review. Several key input factors should be reviewed deliberately to ensure results are truly indicative of the actual project. The RISK-DEPTH, and RISK WARNING factors should be assessed for the without project condition and should be representative of the average hydrologic conditions in the project area. They should also represent conditions in the flooded area that are, in general, the most likely to cause severe injury or loss of life. Similarly, the POPULATION AT RISK (PAR) helps quantify the potential population in the affected area. Any special considerations should be highlighted in the RISK-REMARKS field.

D-8. Application of Specific FRM Data Fields. Specific instruction and additional detail for application of specific FRM data fields follows.

a. Relative Risk.

(1) For each O&M project or maintenance budget item increment in the budget request, the Relative Risk Value at the project level shall be developed in accordance with the following. For all increments in the budget, both a prior condition assessment and with PY request condition assessment will be made to demonstrate what can be achieved by adding each budget increment. The Prior Condition Assessment for the first maintenance package should reflect the PY-1 Condition. The Prior Relative Risk factor for a budget item is the existing risk for the project in whatever condition it is at the end of PY-1. The with PY resulting risk is determined as that condition the project would attain assuming the FY 14 budget increment is funded and the work is completed. Each additional increment may or may not result with an improved condition assessment. The intent of the Relative Risk Value is to show how the condition will improve as incremental investments are made and should answer the question – “How does each increment contribute to improving the project condition and decrease the project’s relative risk? “.

(2) It is important to differentiate between relative risk (which determines to a large extent where we spend our dollars) and the condition or design intent of the project. With reference to relative risk, a consequence category 1 project will always have a medium to high relative risk and can never move to a minimal level of relative risk. By definition these have highest levels of population and damageable property, hence highest potential for adverse impacts. In our view of risk management, there will always be a significant relative risk because of the adverse impacts that occur if the system is faced with a flood /storm greater than the capacity of the project to handle it (or from failure due to other factors, in spite of appropriate O&M). Similarly a consequence category 2 projects could go from low to medium relative risk even if the structure remains completely intact with perfect O&M if population changes or property development occurs that increase the residual risk. We can design a project for a given level of protection and maintain that project perfectly, but will not remove the relative risk compared to other projects. A consequence category 1 project should retain an edge for getting dollars to ensure maintenance is continued at a high level.

(3) It is also important that the condition assessments and risk information must be provided in terms of the projects condition. For example, if a budget increment involves replacing the roof of a control room, the project risk must reflect the impact of replacing the roof on the project's performance. Depending upon the condition, there may not be any imminent impact, but left undone, eventually the leaking roof could affect operation of the project by affecting incoming data, ability of operators to control gates, or other impacts. While this given increment may improve from Condition Classification B to A, it may take several increments to improve the projects condition classification. With respect to individual increments, if multiple actions are required to modify the project performance this should be noted in the REMARKS. Where these multiple actions are required, the increments should be ranked and risk assessments made assuming the higher priority increments are accomplished. The REMARKS should identify the dependences. From a project standpoint, it should also be noted that if the tables show numerous increments being funded with no change in the project condition, this is a good indication that there is a serious problem that needs attention.

b. Condition Assessment.

(1) A Condition Assessment involves identifying for each O&M maintenance increment of proposed work, the condition of the project before and after the addition of that increment and assessing the likelihood or confidence level that they will permit the project to operate as designed. Project level condition assessments for budget requests shall be developed for each project/maintenance budget package using TABLE D-7. The overall project condition assessment table is intended for use by the districts as a guide for determining the overall project conditions and is not intended for submission or higher review. Instructions for use of this table are below. The PY-1 PRIOR CONDITION ASSESSMENT is placed in Column [32] of the initial maintenance increment. Insert the Overall Project Condition of the initial maintenance increment from TABLE D-7 in to the WITH INCREMENT CONDITION [35]. This condition assessment also becomes the PRIOR CONDITION ASSESSMENT [32] for the next maintenance increment. This process continues for all remaining increments. Refer to TABLE D-2 as an example of how this should be applied to maintenance requests. Districts should identify sufficient O&M maintenance packages to bring the project to a "Probably-Adequate Condition B".

(2) To demonstrate how each increment package in O&M contribute to the project's condition assessment, the first increment packages PRIOR CONDITION ASSESSMENT CLASS [32] condition rating should reflect the PY-1 condition rating. The WITH INCREMENT CONDITIOIN ASSESMENT [36] condition rating should reflect the condition rating attained with the increments investment. The second and subsequent packages PRIOR CONDITION ASSESSMENT [32] condition rating should be the WITH INCREMENT CONDITION ASSESMENT [36] rating of the previous increments. TABLE D-2 below provides a sample that demonstrates this concept.

TABLE D-2									
Condition Assessment Example									
APPROP ABBREV	FUNDING INCREMENT	PHASE	PROGRAM NAME	PRIOR CONDON ASSESSMENT CODE	PRIOR CONSEQUENCE CATEGORY	PRIOR RELAVTIVE RISK VALUE (1-5)	WITH INCREMENT CONDON ASSESSMENT	WITH INCREMENT CONSEQUENCE CATEGORY	WITH INCREMENT RELATIVE RISK VALUE (1-5)
OM	1	M	APPLE LAKE, VA	D	4	3	D	4	3
OM	3	M	APPLE LAKE, VA	D	4	3	C	4	4
OM	4	M	APPLE LAKE, VA	C	4	4	C	4	4
OM	4	M	APPLE LAKE, VA	C	4	4	B	4	4
OM	4	M	APPLE LAKE, VA	B	4	4	B	4	4
OM	4	M	APPLE LAKE, VA	B	4	4	A	4	5
OM	4	M	APPLE LAKE, VA	A	4	5	A	4	5
OM	4	M	APPLE LAKE, VA	A	4	5	A	4	5
OM	4	M	APPLE LAKE, VA	A	4	5	A	4	5
OM	5	M	APPLE LAKE, VA	A	4	5	A	4	5

c. Operational Condition Assessment (OCA).

(1) An OCA involves identifying for each O&M maintenance increment of proposed work, the condition of the project before and after the addition of that increment and assessing the likelihood or confidence level that they will permit the project to operate as designed. Condition Assessment Standards for Sub features are provided in TABLE D-3.

(2) The Condition Rating Flow Chart, ILLUSTRATION D.1 provides a process for assigning condition ratings to component features and should be used during the FY 14 budget development. The flow chart provides a graphical means to establish the basic component rating by following a series of YES/NO logical suppositions. This OCA process flow chart is the initial step in the development of an Operational Condition Assessment process and tool that is under development and is anticipated to be ready for training and deployment in FY 12 for MSC and District use in conducting Operational Condition Assessments on the Corps FRM inventory as part of the Asset Management program.

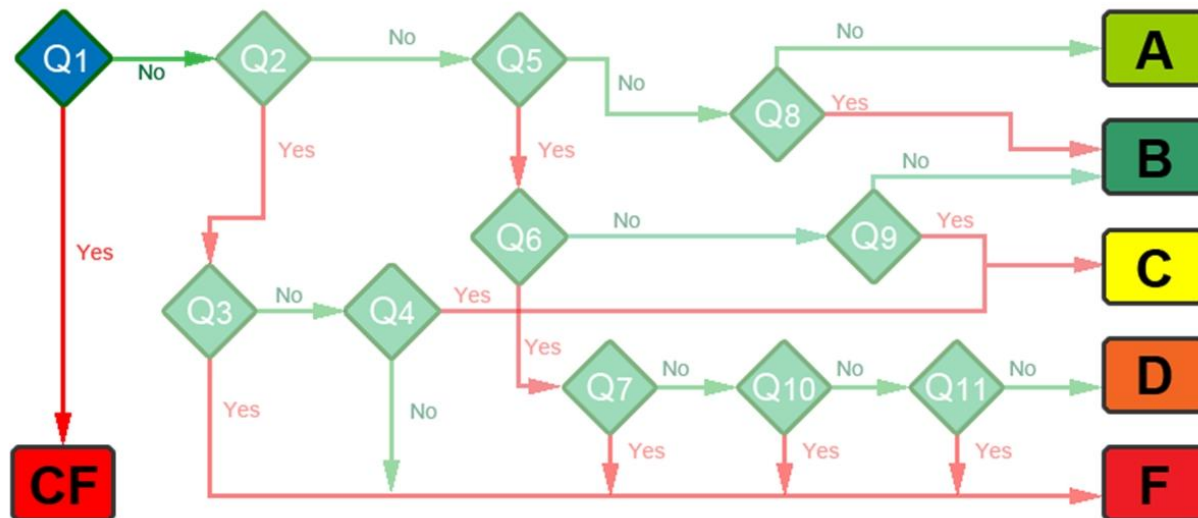


ILLUSTRATION D.1

Condition Rating Flow Chart for Multipurpose Water Resource Projects

(3) An explanation of the questions related to the component condition that correspond to the Condition Rating Flow Chart logic follows:

Q1 Is Component Completely Failed?

The purpose of this step is to allow the assessor to by-pass all other portions of the flow chart if it is obvious that the component is completely failed (i.e., not functioning). It will be evident from documentation or observation whether the component is in the process of failing or completely failed.

Q2 Does Critical Design Flaw Exist?

The purpose of this step allows the assessor to by-pass other *portions of the flow chart if it can be determined that the component* possesses a critical design flaw. It will be the assessor's responsibility to determine from the provided documentation or observation if a critical design flaw exists from either of two perspectives, namely 1) a design capacity flaw and/or a critical functionality flaw. There must be clear documentation and/or observed evidence to establish that either of these criteria is met. The District carries the burden to provide all necessary documentation and supporting evidence to the OCA team that such a critical flaw exists. OCA team members must guide and inform the District as to what proper documented evidence is required to assure that the proper documentation is provided. A rating on the basis of design flaw cannot be made without the documentation available at the time of the assessment. Testimonies are not considered valid documentation.

Q3 Is Capacity Grossly Inadequate?

From a design capacity perspective the District must show that the component's structural or operational capacity is grossly inadequate for the operating loads or conditions that it experiences in order to satisfy

feature mission requirements. The District's documentation used must identify these limits. The analysis must show that the structural or operational capacity of the component is grossly inadequate when compared to these limits. If a gross capacity flaw is confirmed the component's condition will be considered FAILING. This rating may further be incremented with a plus or minus indicator to express the assessor's belief that of the severity of the flaw, but an assignment of "Completely Failed" will not be used.

Q4 Will Component Perform Function as Constructed?

From a functional perspective it must be verified that the component cannot or will not perform its purpose as presently constructed. This may be confirmed from District-furnished documentation or observation. If this case is verified by the assessor, the component's condition may be considered FAILING. If the component's function IS NOT affected by the flaw, then no worse than a 'POOR' rating will be assigned.

Q5 Observed or Documented Deficiency

At this step, the assessor must determine from the documentation, interviews and observations if a deficiency exists, recalling that a deficiency is defined as a *physical characteristic* such as deterioration, damage or other irregular flaw and/or a *violation of standards* related to statute, established agency/industry regulations, or established policies. The component's age or obsolescence is not characteristic of a deficiency. If there is no deficiency consistent with this definition, the component can only be given an "EXCELLENT" or "GOOD" rating.

Q6 Is Deficiency Significant?

Once the assessor has determined that a "deficiency," exists, they must further establish if this deficiency is "significant." The deficiency will be considered "significant" IF ANY of the following criteria are met: (1) The deficiency is of such severity that a clear mode of failure can be substantiated; and/or (2) the component's condition PRESENTLY affects the feature mission requirement(s), operational procedures, or maintenance requirements, and/or (3) the PRESENT safety of personnel or the end users have been clearly compromised. This determination will need to be confirmed through the documentation review, by the interaction with the project staff or through observation of the component's performance. If none of these criteria can be clearly substantiated by the assessor the deficiency must be considered "not significant."

Q7 Violates Law?

Violation of Law -Those significant deficiencies which violate established statute will be considered "Failing."

Q8 Exhibits Normal Wear?

The step allows the assessor to separate those components that are in "EXCELLENT" condition from those in "GOOD" condition. Since components in an EXCELLENT or GOOD condition do not possess safety or violation issues, any further separation will be based on the presence of normally occurring wear. Those components showing no wear should be considered "EXCELLENT." Those components that exhibit characteristics which may be considered normal wear should be considered as "GOOD" condition.

Q9 Is Performance or Safety Affected?

By this stage the assessor has established two points, namely 1) a deficiency exists and 2) the deficiency IS NOT clearly classifiable as "significant."

If the assessor can confirm that a physical deficiency is clearly in a progressive state of degradation that will affect project functionality (i.e., operational procedures, service level and/or normal maintenance requirement), safety or compliance to statutes, then a condition rating of "POOR" may be assigned. Otherwise a "GOOD" condition rating must be assigned.

These next three (3) steps are used to separate those significant deficiencies which will be considered as "INADEQUATE" from those considered "FAILING." Once a deficiency has been determined to be "significant" (i.e., affects operational procedure, service level and/or normal maintenance requirement) the component will be assigned an "INADEQUATE," rating, unless ANY of the following criteria are met,

Q10 Imminent Failure?

If the assessor determines through documentation review and/or observation, that complete component failure is possible within the next OCA cycle, the components rating may be reduced to "FAILING." However, an assignment of "Completely Failed" will not be used in this case.

Q11 Critical Life Safety Concern?

If the deficiency is considered a critical life safety concern, the rating will be reduced to a "FAILING" condition. The life safety concern will be limited to the welfare of project personnel and end users, and will not extend to populations outside the immediate boundaries of the project limits. However, an assignment of "Completely Failed" will not be used in this case.

d. Consequence Category. The consequence provides a relative comparison between O&M budget packages to assess the potential impacts due to unsatisfactory project performance. The Consequence Category assumes poor performance, a reduced level of service, or some degree of failure of the project under a given condition or operation. The consequence factors are defined in TABLE D-4. These consequence categories have been revised to include potential life risk (PAR), physical damage to property, environmental damages, damage to critical infrastructure, social vulnerability (defined on page D-26 below), damages to historical sites, non-compliance with legal mandates, and coastal damages in the project's impact area. The project level consequence category will be developed for each project/maintenance budget item in accordance with the revised TABLE D-4. When using the consequences table take the highest consequence (highest consequence is level 1 and lowest is level 5) found for any of the categories evaluated. The categories are "OR" not "AND" and each category should be evaluated to obtain the appropriate consequence rating for the project. For example a project with a PAR of 5000 would be a level 5; economic damages of \$400M would be a level 3; and a direct take or permanent loss of designated critical habitat of a Federal listed threatened or endangered species would result in a level 1. So the project level would be the lowest number/highest consequence which in this example would be a level 1. The following instructions are provided for use in determining the appropriate consequence ranking for the consequence categories applicable to the project:

(1) The Mapping, Modeling & Consequence Center (MMC) is mapping multiple consequence scenarios for FRM projects operated by the Corps. Two of these scenarios should be used to represent the most likely scenarios that represent the operational conditions of FRM projects. These operational scenarios are summarized below and be obtained from the MMC.

(2) 90% Exceedance Level: The water level has exceeded this elevation 90% of the time that the project has been in place.

(3) 10% Exceedance Level: The water level has exceeded this elevation 10% of the time that the project has been in place.

(4) Life Safety: Population at Risk (PAR) values for the 90% or 10% exceedance level inundation mapping should be used if available from the MMC. If inundation mapping for these exceedance levels are not available then the existing estimate for PAR should be used.

(5) Economics: The economic damages values for the 90% or 10% exceedance level inundation mapping should be used if available from the MMC. If inundation mapping for these exceedance levels are not available then districts can use their own constructed structure inventory databases to calculate potential flood damages for the project inundation area. Economic impacts include the potential flood damage in dollars to the residential and non-residential structures, contents, and vehicles contained within the inundation mapping. The replacement, or remediation, costs of the inundated structures, contents, and vehicles were used to estimate the damages. Districts using these databases to categorize the potential economic damages in their own area can obtain data from the HAZUS website:
<http://www.fema.gov/plan/prevent/hazus/>.

(6) Environmental Consequences Components have been expanded to include Habitat Scarcity; Special Status Species; Water Quality; and Invasive Species. For each component, the district should document the basis of how they rated that component. The following provides additional guidance for rating these environmental consequence components:

(a) Habitat Scarcity: This criterion addresses the loss of habitat in a national and regional context. This criterion is intended to identify specific habitat types with exceptional regional and national scarcity. All special aquatic sites as defined in the 404(b)(1) guidelines are nationally important and relatively scarce.

- Consequence level 1 – The environmental consequence would result in permanent loss of nationally scarce habitat. This would not be based on broad classifications of aquatic habitats such as wetlands that are recognized under programs such as the National Wetlands Inventory Status and Trends Study as declining.

- Consequence level 2 – Result in permanent loss of nationally and regionally scarce or becoming scarcer habitat.

- Consequence level 3 – Result in permanent loss of regionally scarce, or declining scarce aquatic and/or associated habitats (e.g. riparian non-wetland). This may be applied to broad classifications of aquatic habitats such as wetlands that are recognized under programs such as the National Wetlands Inventory Status and Trends Study as declining.

- Consequence level 4 – Temporary loss to any habitats identified in 1, 2, and 3 above.

- Consequence level 5 – Result in insignificant loss of scarce habitat.

- Documentation: The District must refer to the Federal, regional, or state/Tribal report, or peer-reviewed professional publications/societies. The report must refer to the specific habitat type and the region in which the project is located. Basically, why is this habitat considered scarce. For example, the consequence would result in a permanent loss of approximately xx acres (area) of (type of habitat) which considered scarce as documented in (put in reference).

- References:

Definitions of special aquatic sites per 404(b)(1) guidelines:
<http://www.wetlands.com/epa/epa230pe.htm>

National Wetlands Inventory Status and Trends Study:
<http://www.fws.gov/wetlands/StatusAndTrends/index.html>

“Significance in Environmental Project Planning: Resources Document” IWR Report 96-R-7
<http://www.iwr.usace.army.mil/docs/iwrreports/96r07.pdf>

(b) **Special Status Species:** This criterion addresses the effects on special status species in a national and regional context. To define impacts on special status species, it is those impacts that adversely affect any life stage of the species or its designated habitat.

- Consequence level 1 – The environmental consequence would result in a direct take or permanent loss of designated critical habitat of a Federal listed threatened or endangered species, or would result in the project's inability to fulfill their Biological Opinion requirements.

- Consequence level 2 – Result in permanent impacts to Federal listed threatened or endangered species and their designated critical habitat; or result in a direct take or permanent loss of proposed designated critical habitat of a Federal listed candidate species.

- Consequence level 3 – Result in permanent adverse impacts to State listed species or species covered by Federal laws or international treaty such as Migratory Bird Treaty Act, Bald and Golden Eagle Protection Act, Marine Mammal Protection Act, and Magnuson-Stevens Fishery conservation and Management Act. This would not include special status species under Endangered Species Act.

- Consequence level 4 – Result in temporary adverse impacts to all designated special status species and habitat.

- Consequence level 5 – Result in no effect on special status species.

- Documentation: The District needs to document what species and their habitat that is affected and explain how the consequence would result in an impact to those species. If there is a Biological Opinion (BO), refer the BO tracking number.

(c) **Water Quality:** This criterion addresses the effects on water quality, especially impaired waters as defined under section 303(d) of the Clean Water Act. The intent is to identify potential consequences on impaired waters and their Total Maximum Daily Load (TMDLs) of pollutants such as sediment, dissolved oxygen, temperature, and Ph.

- Consequence level 1 – The environmental consequence would result in a permanent exceedance of water quality standards for a category 5 pollutant on a 303(d) listed water body.

- Consequence level 2 – Result in a permanent exceedance of water quality standards for a category 4 pollutant on a 303(d) listed water body.

- Consequence level 3 – Result in a permanent exceedance in TMDLs that exceed local, regional, and state water quality standards on a non-impaired waters.

- Consequence level 4 – result in a temporary impact that exceeds local, regional, and state water quality standards identified above.

- Consequence level 5 – Result in no impact on water quality.

- Reference: EPA Impaired Waters and Total Maximum Daily Loads:
<http://water.epa.gov/lawsregs/lawsguidance/cwa/tmdl/index.cfm>

(d) **Invasive Species:** This criterion addresses impacts of any aquatic invasive species (i.e., plants, fish, shellfish) on a project.

- Consequence level 1 – The environmental consequence would result in the direct introduction of a new aquatic invasive species into an area and/or the establishment of a permanent pathway or life cycle connection for an existing invasive aquatic species.
- Consequence level 2 – Result in a permanent increase in the most damaging aquatic invasive species populations and/or distribution.
- Consequence level 3 – Result in an increase in an aquatic invasive species population and/or distribution and no establishment of a permanent pathway or life cycle connection.
- Consequence level 4 – Result in an anticipated increase in a nuisance aquatic invasive species population and/or distribution.
- Consequence level 5 – Result in no change in existing distribution of nuisance and non-native aquatic invasive species.
- Reference: Aquatic Plant Information System: <http://el.erdc.usace.army.mil/aqua/apis/intro.aspx>
USDA National Invasive Species Information Center: <http://www.invasivespeciesinfo.gov/index.shtml>

D-9. Critical Infrastructure. Essential Structures as defined by the HAZUS Data base and are those facilities that provide services to the community and should be functional after flood. If the water level is greater than 2 feet of flooding then there is a loss of functionality. (Medical Care Facilities – Small (less than 50 beds), Medium (between 50 and 150 beds), and Large (greater than 150 beds) Hospitals and Medical Clinics, Emergency Response Centers – Fire Stations, Police Stations and Emergency Operation Centers and Schools – Primary/High and Colleges/Universities). Purpose of this category is loss of function. The damages are being calculated as part of the general building stock inventory. The number can be derived from the General Building Stock Inventory. The consequence consists of a ratio of Essential Facilities damaged by the flood to the total number of Essential Facilities within the study inundation area for the 500 year event or design level flood inundation area for the project. The basic information and sources of data used by the tool is contained in the following link <http://www.iwr.usace.army.mil/docs/projectfacts/FloodImpactAnalysisSoftware.pdf>. Districts that are interested in using these databases to categorize the potential economic damages in their own area can obtain data from the HAZUS website: <http://www.fema.gov/plan/prevent/hazus/>. Various depth-damage relationships and content-to-structure value ratios are available and can be selected from the HAZUS databases. Districts can also use their own constructed structure inventory databases to calculate potential flood damages.

D-10. Legal Mandates. Generally this is a Yes/No issue. Levels were developed based on limitations imposed by Law. If the Federal Law dictates closure or suspension of the project operations, then the consequence level will be Level 1. For financial penalties or criminal liabilities that can occur but would not impact the operations of the project then the consequence level will be Level 2. If the Legal Mandates issues are based solely on State or Local statutes then the consequence level is 3. The absence of Legal Mandates results in no consequence.

D-11. Social Vulnerability. Social Vulnerability is a key factor in evaluating/assessing the value of Flood Risk Management Projects. A population with greater social vulnerability may be less able to evacuate; more subject to mortality if they evacuate and less able to recover (less resilient) after a flood event. Including social vulnerability while evaluating a project provides a more complete understanding of the problem and thus what types of action will be most effective in mitigating the problem. While there are many factors which contribute to social vulnerability (see Social Vulnerability Analysis Methods Handbook for a complete discussion, <http://www.iwr.usace.army.mil/docs/iwrreports/2011-R-07.pdf>), those which commonly have the most impact are (in no particular order): low income, over 65 years old, under 5 years old, disabled. Of these four, over 65 has been found to result in a higher than expected level of mortality in the event of a flood. Evacuation is helpful, but even those evacuated suffer high rates of mortality, i.e., are less

resilient. This was particularly clear in the analyses done after Hurricane Katrina. In New Orleans, there was a death rate of 65.5 per 10,000 for those over 65 versus a rate of 4.3 per 10,000 for those under the age of 65. (reference: Patrick Sharkey, 2007. "Survival and Death in New Orleans: An Empirical Look at the Human Impact of Katrina." *Journal of Black Studies*, Vol 34 (4)) RECOMMENDATION: For the 2014 FRM budget input, social vulnerability will be represented by the % of the population over 65. Five ranking levels are provided in a consequences table. Data on % of population over 65 can be obtained from the census which provides nationally available, consistent data:

- a. US Age Distribution (track level data) <http://www.census.gov/prod/cen2010/briefs/c2010br-03.pdf>
- b. Fact Finder <http://factfinder2.census.gov/main.html>

D-12. Historical Consequence Rating Criteria.

a. The Historical consequence rating criteria used in the Flood Risk Management Consequence Table were developed to categorize the historical, cultural and archaeological impacts to a geographic area that could result from inundation, as a result of not funding the budget package. Historic impacts include the potential flood damage in dollars or to certain types of sites within the inundation area. The remediation, mitigation or loss estimates were used to develop the damages anticipated from the inundation event. The five consequence categories, which range from 1 (High) to 5 (Low), were developed in consultation with historical / archaeological / cultural experts and the intent is for this data to be obtained for each project to use the inundation area identified by the Hazards U.S. Multi-Hazards (HAZUS-MH) tool developed by FEMA overlaid with known historical / archaeological / cultural sites.

b. Districts using these criteria to categorize the potential Historical damages in their own area can obtain data from their local historical / archaeological / cultural offices and from the National Register of Historic Places database at <http://www.nps.gov/nr/research/> and State databases where the projects reside, e.g. <http://www.iowahistory.org/historic-sites/index.html>. Districts can also use their own inventories of these sites to determine the number and types of sites impacted by a potential inundation event.

(1) World Heritage Site: A natural and/or cultural heritage site identified by the United Nations Educational, Scientific and Cultural Organization (UNESCO) from around the world considered to be of outstanding value to humanity. This is embodied in an international treaty called the Convention concerning the Protection of the World Cultural and Natural Heritage, adopted by UNESCO in 1972. There are 21 such sites in the United States. Some examples include Cahokia Mounds, Grand Canyon National Park, and Independence Hall.

(2) National Monument: A monument constructed in order to commemorate something of national importance such as a war or the country's founding. The term may also refer to a specific monument status, such as a National Heritage Site, which most national monuments are by reason of their cultural importance rather than age. The National monument aims to represent the nation, and serve as a focus for national identity.

(3) National Landmark: National Historic Landmarks are buildings, sites, districts, structures, and objects that have been determined by the Secretary of the Interior to be nationally significant in American history and culture. Many of the most renowned historic properties in the Nation are Landmarks. Mount Vernon, Pearl Harbor, the Apollo Mission Control Center, Alcatraz, and the Martin Luther King Birthplace in Atlanta, Georgia are Landmarks that illustrate important contributions to the Nation's historical development.

(4) Sacred Site: Executive Order 13007 regarding Indian Sacred Sites (E.O. 13007) defines sacred sites as "any specific, discrete, narrowly delineated location on Federal land that is identified by an Indian tribe, or Indian individual determined to be an appropriately authoritative representative of an Indian religion,

as sacred by virtue of its established religious significance to, or ceremonial use by, an Indian religion; provided that the tribe or appropriately authoritative representative of an Indian religion has informed the agency of the existence of such a site.” There is no review of such determinations by a Federal agency.

(5) Traditional Cultural Property: A property that is eligible for inclusion in the National Register of Historic Places because of its association with cultural practices or beliefs of a living community that (a) are rooted in that community’s history, and (b) are important in maintaining the continuing cultural identity of the community.

(6) National Register of Historic Places: The National Register of Historic Places is the official list of the Nation’s historic places worthy of preservation. Authorized by the National Historic Preservation Act of 1966, the National Park Service’s National Register of Historic Places is part of a national program to coordinate and support public and private efforts to identify, evaluate, and protect America’s historic and archeological resources.

(7) Culturally or historically significant refers to any cultural resource that is eligible for listing on the National Register of Historic Places. A cultural resource that is eligible for listing on the NRHP is called an historic property. Indian burial mounds are generally both Sacred Places and historic properties eligible for listing on the NRHP.

D-13. Coastal Storm Damage Reduction Consequence Rating Criteria.

a. The operational condition risk assessment consequence rating criteria used in the Flood Risk Management Consequence Table were developed to categorize coastal flooding impacts to a geographical area. The range of coastal flooding impacts is based on catastrophic failure of the coastal structure. This condition is representative of the damages sustained from a typically larger than 100-yr return period storm, but can vary from project to project. Coastal storm damage impacts include the following:

(1) Economic losses due to facility/public facility structural damage resulting from wave induced erosion of the shoreline, and flood inundation.

(2) Transportation disruption due to loss of roadways resulting from wave induced erosion of the shoreline.

b. The two consequence categories, which range from a high of 1 to a low of 5, were developed based on the probable impacts resulting to a community from the catastrophic failure of a coastal structure.

D-14. Relative Risk Value Matrix.

a. The “Relative Risk Value” is determined from TABLE D-5 using both the project “Condition Classification” and the “Consequence Category” values developed for each increment as detailed above. This Relative Risk Value Matrix uses values from 1-25 as a convenience for use by the MSC and Districts to provide a greater level of granularity in developing the various rankings of budget increments. A value of 1 indicates a project with a high relative risk, while a value of 25 indicates a project with a low relative risk.

b. The 1-5 Relative Risk Value in TABLE D-6 uses values of 1-5 and are consistent between business lines and will be used to develop comparisons across business lines at the HQUSACE level. A value of 1 indicates a project with a high relative risk, while a 5 indicates a project with a low relative risk. The five levels are: 1 = High Relative Risk; 2 = Med-High Relative Risk; 3 = Medium Relative Risk; 4 = Low Relative Risk; and 5 = Minimal Relative Risk.

c. Using the information provided in the “Condition Classification” and “Consequence Categories” columns, OFA automatically calculates the Relative Risk Value for each increment. Relative Risk values are used to make informed investments that will minimize risk and provide maximum benefits to the public.

d. Life Safety Hazard Index. The life safety hazard index is used to represent a relative assessment of the potential loss of life associated with a project. This index is used to capture the non-monetary (life risk) aspects of flood risk management projects in order to elevate their budget priority and are used when other metrics do not reflect the risk. The RISK-DEPTH, and RISK WARNING factors should be assessed for the without project condition and should be representative of the average hydrologic conditions in the project area. They should represent conditions in the flooded area that are, in general, the most likely to cause severe injury or loss of life. Similarly, the population at risk (PAR) helps quantify the potential population in the affected area. Any special considerations should be highlighted in the RISK-REMARKS field. While not currently being used, a proxy for residual economic damages will be calculated from the Average Annual Damages and Average Annual FDR Benefits fields for additional use as an added flood risk factor.

D-15. Individual Dam Safety Studies. Individual dam safety studies will be submitted in coordination with HQ risk informed prioritizations and ranked accordingly. The highest ranking DSAC I and II studies will be combined, by HQ, into “the wedge” as part of the Remaining Items account and included in the final budget presentation. This information is needed for defending the amount of the dam safety “wedge” in the Construction program and the expected overall cost of the dam safety program. Dam Safety Issue Evaluation Studies (IES), and dam safety modification studies (DSMS) will be centrally funded by “the wedge”. An approved IES study with a recommendation to proceed into Dam Safety Modification Evaluation Report is required to enter the resource before further work.

D-16. Dam Safety Modification Studies and Levee Safety Projects. Those for which the Corps still retains responsibility will be submitted under the construction appropriation. Each dam safety modification study (or group of similar studies for the same project) should be a line item in the submission and identified with phase code (PHASE = SS) and the Dam Safety Action Classification code (DSAC = I, II, III, IV, or V). Use CCS codes 541, 641, etc., for all Dam Safety Modification studies. CCS code 801 will not be used for Dam Safety Modification studies in future program years. Enter the expected report completion date in the Phase Completion column. Enter the additional funding required to complete the in the Balance to Complete column. The final determination for Dam Safety studies and construction remediation projects is made at HQUSACE.

D-17. Levee Safety Program Activities. For levee systems in which USACE operates and maintains or has major maintenance responsibilities, Levee Safety Program activities such as routine and periodic inspections; levee screening; emergency notification; emergency action plan updates; and implementation of interim risk reduction measures for these levee systems should be included in the O&M allocation for these specific levee systems. Funding for the National Flood Insurance Program (NFIP) Levee System Evaluations (or otherwise known as Levee Certifications) for levee systems in which USACE operates and maintains or has major maintenance responsibilities may be included in the O&M budget request for these levee systems.

D-18. Inspection of Completed Works (ICW), Flood Damage Reduction, Federally Authorized Shore Protection Systems and the Levee Safety Program.

a. Levee Safety Program activities funded by ICW are considered highest priority. The work covers federally authorized and constructed levee systems operated and maintained by local sponsors, in addition to Levee Safety Program management activities. Non-federal levee systems in the USACE Rehabilitation and Inspection Program (RIP) will be budgeted under the Flood Control and Coastal Emergencies (FCCE) when appropriate and as noted below. The Levee Safety Program is based on a systems approach using

the System. Districts will develop increments by state and indicate in the REMARKS field(s) the total projects in the state and the total to be inspected (both Routine and Periodic Inspections) and screened during this budget cycle. Other Levee Safety Program activities to be accomplished in this PY should also be noted in the REMARKS. The number of inspections and screenings performed is a performance metric. See Annex III – Operations and Maintenance – Levee Safety Program.

b. Refer to TABLE D-9 to determine which data columns must be completed for each of the FRM appropriation account phase activities.

c. Reliability-Shore Protection Condition.

(1) The Shore Protection Systems (SPS) data base provides risk and condition rating criteria for shore protection projects that will assist in assessing and prioritizing these projects for initial and re-nourishment construction, as well as shore protection study efforts. Under the Shore Protection Systems (SPS) effort, the reliability of shore protection projects is identified in a document and web database accessible at: <http://cspi.usace.army.mil/cspi/default.aspx>.

(2) Project reliability is an assessment of the physical condition of projects where construction is either ongoing or complete, as well as project areas where studies are ongoing. This assessment is to be performed twice a year, on or around April 1 and October 1 in order to capture a more accurate snapshot of the physical condition of the beach following both the winter and summer seasons when the most significant changes occur to a beach profile and the project design condition.

(3) Refer to TABLE D-8 for a representation of the Reliability-Shore Protection Condition. The RELIABILITY-SHORE PROTECTION CONDITION RATING provides a qualitative representation of how critical the need for project renourishment is based on an assessment of the projects' existing profile condition compared to its design profile. The qualitative condition assessment can be based on profile data, surface terrain data, LiDAR data or the like, but must be at least based on field observations. The RELIABILITY-SHORE PROTECTION CONDITION RATING must be representative of the average condition over the entire project length, not just on a "hot spot" condition. Documenting the reliability helps identify projects that are in the greatest risk of not providing their authorized storm damage reduction benefits, and how critical the need for renourishment is currently and will be into the future for that project.

(4) The FY 14 budget document will reflect the condition assessment from October 2011. It is acknowledged that conditions can and are likely to change between the assessment and the actual budget year, however projects that are in poor condition will stay in poor condition until renourished, and projects that are in either good or intermediate condition may in fact change condition to intermediate or poor condition, respectively over the course of time between the budget document and the actual fiscal year budget based on storm impacts. The reliability rating criteria is the following:

Good (G) = Project is early in the renourishment cycle, is performing better than expected, and the current project profile exceeds the design profile.

Intermediate (I) = Project is midway through the renourishment cycle, is performing worse than expected, and the current project profile exceeds the design profile but will require renourishment during the program year to maintain reliability.

Poor (P) = Project is late in the renourishment cycle and the current project profile is below the design profile.

Unconstructed (U) = Project construction has been authorized but initial nourishment has not been constructed.

(5) These rating codes will be used to populate the RELIABILITY-SHORE PROTECTION CONDITION column [63]. Identifying reliability of shore protection projects will assist in assessing and prioritizing these projects for initial and re-nourishment construction, as well as study efforts in order to buy down the risk to the nation's coastline and coastal communities.

TABLE D-3	
Condition Assessment Standards for Sub-Features	
Condition Classification	Definitions
A Adequate	1) Component is fully functional, 2) No documented critical design flaw in terms of structural/operational capacity or functionality, 3) No documented or observed deficiencies by definition, 5) No indication of wear.
B Probably Adequate	1) Component is fully functional, 2) No documented critical design flaw in terms of structural/operational capacity or functionality, 3) Documentation, testimonies and/or observations concluded that a deficiency by definition exists, 4) A clear mode of failure cannot be confirmed, 5) The components performance is not affected by the deficiency, 6) The feature mission requirement(s) (i.e. flood control, water quality, water supply, etc.) are not affected by the deficiency, 7) Normal operating procedures and routine maintenance requirements are not affected by the deficiency, 8) Safety of personnel and end users are not affected by the deficiency, 8) There is indications of normal wear as documented, reported or observed.
C Probably Inadequate	1) Component is fully functional, 2) A critical design flaw potentially exist in terms of structural/operational capacity or functionality, but must be further substantiated by owning District, 3) Documentation, testimonies and/or observations conclude that a deficiency by definition exists, 4) Documentation, testimonies, and/or observation can confirm a progressing degradation of the components condition, 5) A clear mode of failure cannot be confirmed, 6) The components performance is not presently affected by the deficiency, but is likely due to the substantiated progress in degradation, 7) The feature mission requirement(s) (i.e. flood control, water quality, water supply, etc.) are not presently affected by the deficiency, but likely due to the substantiated progress in degradation, 8) Normal operating procedures and routine maintenance requirement are not presently affected by the deficiency, but likely due to the substantiated progress in degradation, 9) Safety of personnel and end users not presently affected by the deficiency.
D Inadequate	1) Component is functional, 2) Documentation, testimonies and/or observations conclude that a deficiency by definition exists, 3) Documentation, testimonies, and/or observation can confirm that the deficiency is significant by any of the following criteria: a. A clear mode of failure exists, b. The components performance is presently affected, c. Feature mission requirement(s) (i.e. flood control, water quality, water supply, etc.) are presently affected, d. Normal operating procedures are presently affected, e. Routine maintenance requirements are presently affected, 4) A recent unsatisfactory performance or failure of service due to the deficiency cannot be confirmed by documentation or testimonies, 5) It is not likely that an imminent failure of the component will occur, 6) A critical life safety concern to personnel or end users does not exist.
F Failing or Failed	Failing: 1) Component is functional, 2) Documentation, testimonies and/or observations conclude that a deficiency by definition exists, 3) Documentation, testimonies, and/or observation can confirm that the deficiency is significant by any of the following criteria: a. A clear mode of failure exists, b. The components performance is presently affected, c. Feature mission requirement(s) (i.e. flood control, water quality, water supply, etc.) are presently affected, d. Normal operating procedures are presently affected, e. Routine maintenance requirements are presently affected, 4) In addition to the affect the deficiency has on performance and operation, a recent unsatisfactory performance or failure of service due to the deficiency can be confirmed by documentation or testimonies, 5) In addition to the affect the deficiency has on performance and operation, it is likely that an imminent failure of the component will occur, 6) In addition to the affect the deficiency has on performance and operation, a critical life safety concern to personnel or end users exists. Failed: Component is presently out of service or not functional.

TABLE D-4

Consequence Category 1 Rating Criteria

PAR ≥ 100,000

Economic Impact:

- Damages to residential and nonresidential structures, their contents and vehicles greater than \$10B

Environmental:

- Permanent loss of nationally scarce habitat
- A direct take or permanent loss of designated critical habitat of a Federal listed threatened or endangered species, or would result in the project's inability to fulfill their Biological Opinion requirements
- Permanent exceedance of water quality standards for a category 5 pollutant on a 303(d) listed water body
- Direct introduction of a new aquatic invasive species into an area and/or the establishment of a permanent pathway or life cycle connection for an existing invasive aquatic species

Critical Infrastructure:

- Ratio of Essential Structures Damaged ≥ 30%

Legal Mandate (Federal)

- Shut down of mission
- Project cannot operate until project/feature is repaired

Social Vulnerability:

- Population over 65 ≥ 30%

Historic:

- Irreparable damage to a World Heritage Site, National Monument, National Historic Landmark, National Register of Historic Places Listed/Eligible Property, and/or Sacred Site or Traditional Cultural Property
- Massive losses to historic or culturally significant sites (> \$1B)

Coastal Projects:

- Highest economic impact > \$100M
- National/Multi-regional transportation disruption

Consequence Category 2 Rating Criteria

50,000 ≤ **PAR** < 100,000

Economic Impact:

- Damages to residential and nonresidential structures, their contents, and vehicles ranging from \$1B to \$10B

Environmental:

- Permanent loss of nationally and regionally scarce or becoming scarcer habitat
- Permanent impacts to Federal listed threatened or endangered species and their designated critical habitat; or result in a direct take or permanent loss of proposed designated critical habitat of a Federal listed candidate species
- Permanent exceedance of water quality standards for a category 4 pollutant on a 303(d) listed water body
- A permanent increase in the most damaging aquatic invasive species populations and/or distribution

Critical Infrastructure:

- 25% ≤ Ratio of Essential Structures Damaged < 30%

Legal Mandate (Federal)

- Mission can continue
- Project continues to operate
- Fines, penalties, or law suits may result

Social Vulnerability:

- 25% ≤ Population over 65 < 30%

Historic:

- Significant but reparable damage to a World Heritage Site, National Monument, National Landmark, and/or Sacred Site or Traditional Cultural Property
- Significant damages to more than 10 sites identified on the National Register of Historic Places that can be

<p>mitigated through some form of data recovery</p> <ul style="list-style-type: none"> • Any damage to Indian Burial Grounds • Major losses to historic or culturally significant sites (\$10M-\$1B) <p>Coastal Projects:</p> <ul style="list-style-type: none"> • High economic impact \$10M - \$100M • Multi-regional transportation disruption
Consequence Category 3 Rating Criteria
<p>$25,000 \leq \text{PAR} < 50,000$</p> <p>Economic Impact:</p> <ul style="list-style-type: none"> • Damages to residential and nonresidential structures, their contents, and vehicles ranging from \$100M to \$1B <p>Environmental:</p> <ul style="list-style-type: none"> • Permanent loss of regionally scarce, or declining aquatic and/or associated habitats (e.g. riparian non-wetland) • Permanent adverse impacts to State listed species or species covered by Federal laws or international treaty • Permanent exceedance in Total Maximum Daily Loads (TMDLs) that exceed local, regional, and state water quality standards on a non-impaired waters • An increase in an aquatic invasive species population and/or distribution and no establishment of a permanent pathway or life cycle connection <p>Critical Infrastructure:</p> <ul style="list-style-type: none"> • $20\% \leq \text{Ratio of Essential Structures Damaged} < 25\%$ <p>Legal Mandate (State or Local) :</p> <ul style="list-style-type: none"> • Examples include State coastal zone management plan (CZM), State listed species, flow agreements, etc. <p>Social Vulnerability:</p> <ul style="list-style-type: none"> • $20\% \leq \text{Population over 65} < 25\%$ <p>Historic:</p> <ul style="list-style-type: none"> • Moderate damages to more than 10 sites identified on the National Register of Historic Places that can be mitigated through some form of data recovery and/or protection • Moderate losses to historic or culturally significant sites (\$1M-\$10M) <p>Coastal Projects:</p> <ul style="list-style-type: none"> • Demonstrated moderate economic impact \$1M - \$10M • Regional Transportation Disruption
Consequence Category 4 Rating Criteria
<p>$10,000 \leq \text{PAR} < 25,000$</p> <p>Economic Impact:</p> <ul style="list-style-type: none"> • Damages to residential and nonresidential structures, their contents, and vehicles ranging from \$10M to \$100M <p>Environmental:</p> <ul style="list-style-type: none"> • Temporary loss to any habitats identified in 1, 2, and 3 above • Temporary adverse impacts to all designated special status species and habitat • Temporary impact that exceeds local, regional, and state water quality standards identified above • An anticipated increase in a nuisance aquatic invasive species population and/or distribution <p>Critical Infrastructure:</p> <ul style="list-style-type: none"> • $10\% \leq \text{Ratio of Essential Structures Damaged} < 20\%$ <p>No Legal Mandate exists</p> <p>Social Vulnerability:</p> <ul style="list-style-type: none"> • $10\% \leq \text{Population over 65} < 20\%$ <p>Historic:</p> <ul style="list-style-type: none"> • Moderate damages to 1 site identified on the National Register of Historic Places that can be mitigated through some form of data recovery and/or protection • Minor losses to historic or culturally significant sites (<\$1M) <p>Coastal Projects:</p> <ul style="list-style-type: none"> • Demonstrated low economic impact <\$1M

- Local Transportation Disruption

Consequence Category 5 Rating Criteria

PAR < 10,000

Economic Impact:

- Damages to residential and nonresidential structures, their contents, and vehicles less than \$10M

Environmental:

- Insignificant loss of scarce habitat
- No effect on special status species
- No impact on water quality
- No change in existing distribution of nuisance and non-native aquatic invasive species

Critical Infrastructure:

- Ratio of Essential Structures Damaged < 10%

No Legal Mandate exists

Social Vulnerability:

- Population over 65 < 10%

Historic: No historical or culturally significant properties impacted

Coastal Projects:

- No economic impact
- No transportation disruption

TABLE D-5
Relative Risk Value Matrix (1-25 Matrix)

			Relative Risk Value Matrix (1-25 Matrix)				
			Overall Project Condition Classification (Table III-7)				
			F (1)	D (2)	C (3)	B (4)	A (5)
Condition		Failed	Inadequate	Probably Inadequate	Probably Adequate	Adequate	
Consequence Category	Consequence						
	1	High	1	2	6	10	15
	2	Medium High	3	5	9	14	19
	3	Medium	4	8	13	18	22
	4	Low	7	12	17	21	24
5	Minimal	11	16	20	23	25	






-  High Relative Risk
-  Med-High Relative Risk
-  Medium Relative Risk
-  Low Relative Risk
-  Minimal Relative Risk

TABLE D-6
Relative Risk Value Matrix (1-5 Matrix)

Condition Consequence			Relative Risk Value Matrix (1-5 Matrix)				
			Overall Project Condition Classification (Table III-7)				
			F (1)	D (2)	C (3)	B (4)	A (5)
			Failed	Inadequate	Probably Inadequate	Probably Adequate	Adequate
Consequence Category	1	High	1	1	2	2	3
	2	Medium High	1	2	2	3	4
	3	Medium	2	2	3	4	4
	4	Low	2	3	4	4	5
	5	Minimal	3	4	4	5	5






	High Relative Risk
	Med-High Relative Risk
	Medium Relative Risk
	Low Relative Risk
	Minimal Relative Risk

ILLUSTRATION D.2 Overall Project Condition Assessment Worksheet

PROJECT NAME AND STATE										
FEATURE	SUB-FEATURE	Initial Increment			Next Increment			Next Increment		
		SUB-FEATURE CONDITION Value between 1 (worst) and 5 (best)	WEIGHT (percentage this sub-feature contributes to mission)	FEATURE/ SUB FEATURE CONDITION (product of previous two columns)	SUB-FEATURE CONDITION Value between 1 (worst) and 5 (best)	WEIGHT (same as weight from Initial Increment)	FEATURE/ SUB FEATURE CONDITION (product of previous two columns)	SUB-FEATURE CONDITION Value between 1 (worst) and 5 (best)	WEIGHT (same as weight from Initial Increment)	FEATURE/ SUB FEATURE CONDITION (product of previous two columns)
04-Dams										
	3,600-ft X 300ft embankment	4.0	0.35	1.40	5.0	0.35	1.75	5.0	0.35	1.75
	315 ac-ft lake	4.0	0.05	0.20	5.0	0.05	0.25	5.0	0.05	0.25
06-Fish and Wildlife										
	Hatchery		0.00	0.00		0.00	0.00		0.00	0.00
07-Power Plants										
			0.00	0.00		0.00	0.00		0.00	0.00
08-Roads, Railroads and Bridges										
			0.00	0.00		0.00	0.00		0.00	0.00
09-Channels and Canals										
			0.00	0.00		0.00	0.00		0.00	0.00
11-Levees and Floodwalls										
			0.00	0.00		0.00	0.00		0.00	0.00
13-Pumping Plants										
			0.00	0.00		0.00	0.00		0.00	0.00
14-Recreation										
			0.00	0.00		0.00	0.00		0.00	0.00
15-Floodway Control and Diversion Structures										
	Gate-controlled concrete spillway	2.0	0.35	0.70	2.0	0.35	0.70	5.0	0.35	1.75
	Multi-level intake tower	4.0	0.05	0.20	4.0	0.05	0.20	4.0	0.05	0.20
	RO Tunnel	4.0	0.05	0.20	5.0	0.05	0.25	5.0	0.05	0.25
	RO Tunnel	4.0	0.10	0.40	5.0	0.10	0.50	5.0	0.10	0.50
	Flip bucket	4.0	0.05	0.20	5.0	0.05	0.25	5.0	0.05	0.25
16-Bank Stabilization										
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18-Cultural Resources Preservation										
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19-Buildings, grounds and utilities										
			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OVERALL PROJECT CONDITION ASSESSMENT			1.00	3		1.0	4		1.00	5

TABLE D-7

Project Condition Assessment Worksheet



Project Condition
Assessment Work She

Overall Project Condition Assessment Work Sheet Instructions for TABLE VD-7:

FEATURE – Enter the main project features associated with the flood risk management purpose. See the main memorandum under 8. **PRIMARY FEATURE CODE**.

SUB-FEATURE – Enter the flood risk management components of the project **FEATURE**.

SUB-FEATURE CONDITION – Use TABLE D-3 to select the sub-feature's condition scaled between 1 and 5, where 5 is the best condition and 1 is the worst.

WEIGHT – Enter the percentage this sub-feature contributes to the project's flood damage reduction mission. The sum of the weights of all FRM sub-features will be 1.0. The **WEIGHT** values will be the same across all incremental investments. Make sure the sub-features has the proper weight to show the importance of critical components to the flood control facilities as a whole.

FEATURE/SUB-FEATURE CONDITION – Calculate the product of the **SUB-FEATURE** condition multiplied by the **WEIGHT**.

OVERALL CONDITION ASSESSMENT – Sum the **FEATURE/SUB-FEATURE CONDITION** column to determine the **OVERALL PROJECT CONDITION ASSESSMENT**. Convert the **OVERALL**

PROJECT CONDITION ASSESSMENT from the increment on TABLE D-7 to the alphabetical letter associated with the condition (1=F, 2=D, 3=C, 4=B, 5=A). Enter the alpha code into the **WITH**

INCREMENT CONDITION ASSESSMENT CLASS column [35]. The **RELATIVE RISK VALUE** will be auto-populated based on TABLEs D-5 or D-6.

INITIAL INCREMENT – The first increment should assume that work funded in the FY 11 Appropriations and the FY 13 President's Budget has been completed.

NEXT INCREMENT – Enter the condition assessment information for each additional increment. Additional increment condition assessments will identify improvements to the project for the features included in that increment. As an example, in TABLE D-7, the second incremental investment shows improvement to the Dam features, RO Tunnel, RO and flip bucket. The third incremental investment shows improvement to the gate-controlled concrete spillway.

TABLE D-8
Shore Protection Reliability Rating Criteria

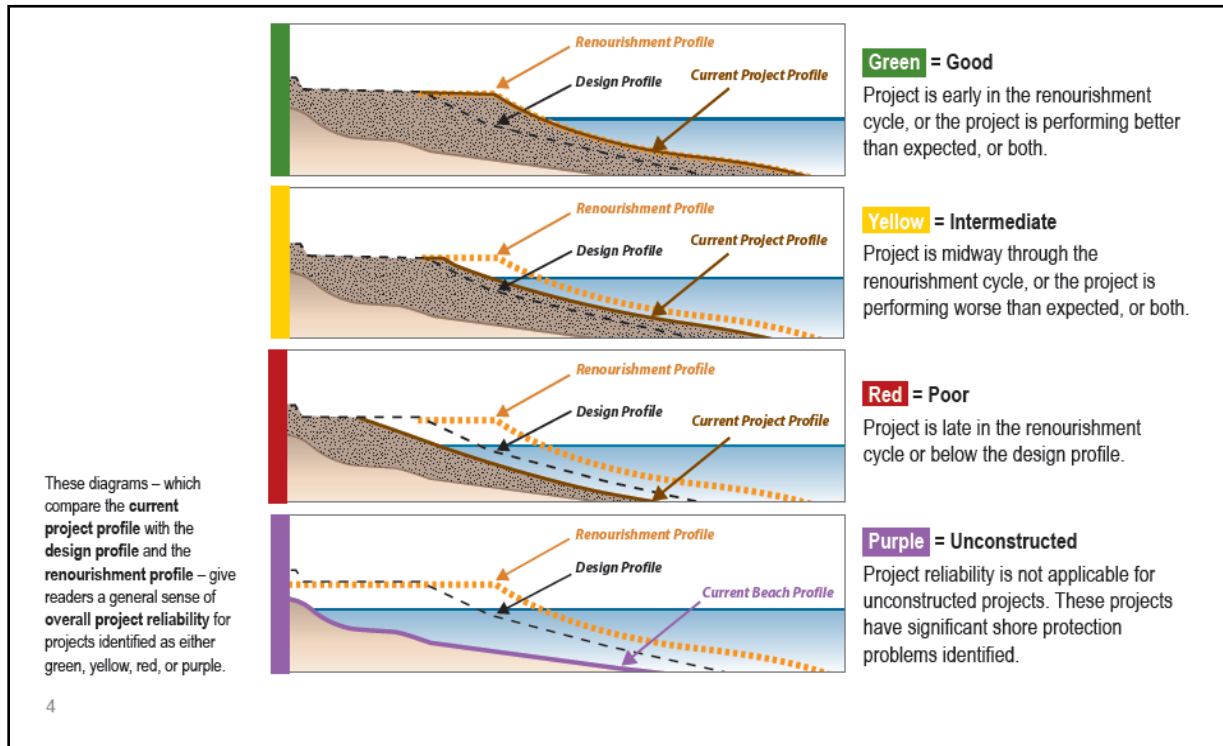


TABLE D-9
Budget Development Data Column Requirements



APPENDIX E

Hydropower

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APPENDIX E

Hydropower

E-1. Background.

a. The Corps is the largest owner/operator of hydroelectric power plants in the United States.

b. The earliest Corps hydropower plants were constructed at navigation dams, as joint efforts with electric utility companies. The utilities built the power plants as the Corps built the navigation project. Later, Congress authorized the Corps to construct its own power plants at Corps projects being built for other purposes. Most of the congressionally authorized hydropower projects were placed into service during the decades following World War II.

c. The Corps' 75 hydropower plants have a total of 353 generating units with a total installed capacity of 20,474 megawatts and produces about 70 billion kilowatt-hours of average annual energy a year. Hydropower is one of several purposes at Corps dams that also include navigation, flood damage reduction, water supply, ecosystem restoration, and recreation.

E-2. Mission. The mission of the Corps Hydropower Business Line is to provide reliable hydroelectric power services at the lowest possible cost, consistent with sound business principles, in partnership with other Federal hydropower generators, power marketing administrations and preference customers, to benefit the Nation.

E-3. Hydropower Performance Goals and Performance Measures. General. Civil Works strategic objectives and performance goals provide the framework for funding (budgeting) projects and activities. Therefore, the hydropower budget must be developed using the concepts, goals, and strategic objectives found in these Corps documents:

- USACE Campaign Plan
- Civil Works Strategic Plan for FY 11 – FY 15
- Five and Ten Year Development Plans
- MSC Implementation Plans
- Infrastructure Management Plans (O&M)

E- 4. Hydropower Budget Guidelines.

a. General. The Corps' Hydropower Program is well established and highly valued by its customers and stakeholders. Hydropower provides clean, reliable, and sustainable energy at the lowest possible cost. The purpose of this budget guidance is to ensure there is alignment between the Hydropower Business Line's performance goals and risk/asset management priorities and its budget request.

(1) Funding that is focused on performance goals and risk management is needed to: (a) ensure reliable operation and availability of generating units; (b) provide preventive maintenance of equipment and facilities; (c) allow for adequate data collection, monitoring, condition assessments, and investigations of problems; and (d) implement improvements to increase operational efficiencies.

(2) Development of new or existing projects, timely rehabilitation of aging projects, and facility modernization or improvement is also a priority of budget funding.

(3) A nationwide perspective must be maintained to ensure that available funding provides the greatest public benefit for the investment. Within the funds available, the safety, security, and environmental sustainability of existing hydropower infrastructure must be maintained, new

evaluations to address high yield modernization of hydropower infrastructure must be conducted, critical maintenance backlog activities must be reduced, and uncompleted projects must be brought on line quickly so that benefits can be achieved as soon as possible.

b. Construction. Prioritization of projects and budget funding for the hydropower construction program will utilize the results of the Hydropower Modernization Initiative (HMI) Asset Investment Planning (AIP) Tool. The AIP Tool will be used in developing integrated long term (20 years) plans derived from economic and risk principals; quantify risks associated with lack of funding; quantify CO₂e production avoided verses investments (environmental benefits) and provides a consistent process for investment planning across the Federal hydropower sector. MSCs must coordinate with CECW-CO-H (HQ Hydropower Business Line Manager) during budget development to evaluate which hydropower construction projects will be budgeted in the PY budget submission based on the AIP Tool results and OASA(CW) / OMB directives.

c. Operations and Maintenance. Operations and maintenance activities will include routine, non-routine, critical and Major Maintenance items. Six objective-based performance criteria should be used to allocate operation and maintenance funds to Corps projects. These criteria give priority to key infrastructure by considering the condition of the project and the potential consequences for project performance if the O&M activity is not undertaken in the budget year. O&M Major Maintenance (MM) items will be identified in the HMI AIP tool. MSCs must coordinate with CECW-CO-H (HQ Hydropower Business Line Manager) during budget development to determine which hydropower MM projects will be budgeted in the PY budget submission based on the AIP Tool results and OASA(CW) / OMB directives. The six criteria and an explanation of how the criteria are used is provided below:

(1) Asset Availability – O&M projects are evaluated to determine their ability to adequately perform their intended function when required by field conditions. Condition Classification Guidelines are used to determine overall project condition, with component condition assessments performed to evaluate the condition of individual critical components. Consequence Rating Criteria are then used to determine the impact (dollars, lives, etc) of reduced availability. The results of the condition and consequence evaluations lead to a risk level based on an established matrix. Cost effective measures are then evaluated to provide the lowest cost solution to improve the availability of the project to acceptable levels.

(2) Asset Reliability – O&M projects are also evaluated to determine their ability to adequately perform their intended function in a consistent and dependable manner under field conditions. Here again, Condition Classification Guidelines, critical component assessments and Consequence Rating Criteria are used to evaluate the risk the project poses if the needed work is unfunded based on its intended function. Cost effective measures are weighed to determine the lowest cost solution to improve the reliability of the project to acceptable levels.

(3) Economic Return – Each O&M project is also evaluated based on the benefits that will be accrued – both long-term and short-term – as a result of the dollars spent to bring the project up to an acceptable level. Increased benefits per dollar spent increases the priority the project receives in the budget process.

(4) Public Safety and Health – Public Safety and health related issues are also a determining factor in the ranking of O&M projects. Projects are ranked higher based on the impact that failure of the project will have on loss of life or loss of property or health related issues that might ensue as a result of failure.

(5) Environmental Concerns – O&M projects that have significant environmental concerns are identified and the level of environmental impact evaluated. Special consideration for funding is provided to those projects that have significant environmental impacts.

(6) Legal Requirements – O&M projects that have legal requirements are also given special consideration for funding in the budget. Legal matters such as those involving Indian tribal rights increase the priority of O&M projects for funding.

d. Asset Management. Successful strategic planning for the management of hydropower assets requires consideration and balancing of many factors, including the risks and consequences of equipment failure. Aging and deteriorating infrastructure poses significant risk to hydropower equipment reliability, and will eventually result in reduced generating unit capacity, availability, and efficiency. The Hydropower Modernization Initiative is a critical component of the Hydropower Program's asset management strategy, providing a programmatic approach to addressing asset investment needs and opportunities.

e. Dam Safety Interim Risk Reduction Measures (IRRM). See Sub-ANNEX III-2 for PY guidance. NOTE: No Dam Safety work packages will be submitted in the Hydropower program budget except that Dam Safety Joint Cost work packages will be submitted under the HYD business line as described in Sub-Annex III-2.

f. Bridges. Bridges are vital to the nation's highway and transportation systems, especially high-level highway bridges over waterways and canals. Bridges are also mission critical for flood risk management projects as well as for public access in our recreation and environmental stewardship lands. See Annex III-2 for further guidance on bridges.

g. Risk Management.

(1) Effective risk management requires an inventory of each class of asset, some form of standardized condition assessment, a method to evaluate the reliability of these assets and the consequences of unsatisfactory performance. Risk management balances tradeoffs and integrates mission objectives through common objectives or metrics and an integrated framework.

(2) Risk management evaluates which risks identified in the risk assessment process require management. Risk managers then select and implement the plans or actions that are required to ensure that those risks are controlled. These risks must be communicated effectively to Corps stakeholders. Risk communication involves an interactive dialogue between stakeholders, risk assessors and risk managers.

(3) The Hydropower Business Line has developed risk management tools, interim risk reduction measures, and long-term investment plans to minimize the risk of forced outages or catastrophic equipment failure. These risk considerations must be integrated into long range planning and multi-year development plans.

(4) An important tool in the Corps Hydropower Business Line Asset Management strategy is the hydroAMP Condition Assessment framework. The Corps will use hydroAMP to streamline and improve the evaluation and documentation of hydroelectric equipment and facility condition assessments to support prioritization of hydropower asset funding. The hydroAMP Condition Index will be used by hydropower asset managers to develop and support budget priorities for the following reasons:

(a) hydroAMP assessment guides provide consistent techniques for evaluating component condition.

(b) Condition ratings provide an important tool for evaluating the risk of hydropower equipment not performing as expected within a planning window.

(c) hydroAMP ratings support Risk Assessment Condition Profile Analysis, and Age Profile Analysis for different investment scenarios.

h. Component Condition Assessment (hydroAMP).

(1) Component condition is a critical factor in risk management because the likelihood of failure increases as component condition degrades. Routine maintenance and inspection activities are intended to identify and address deficiencies prior to their posing threats to equipment reliability. However, even with an effective maintenance and inspection program, equipment condition may eventually deteriorate to the point at which sustained outages will result. To effectively recognize and understand risks, it is imperative that the condition of major components be assessed and managed.

(2) Condition assessments are intended to assist management and other decision-makers regarding replacement or rehabilitation of assets when faced with competing demands and limited resources. To reduce the risk of unexpected failure and forced outages, it is imperative that the condition of major components be identified and managed.

(3) TABLE E-1 below provides definitions for hydroAMP Condition Index Categories (Good, Fair, Marginal, Poor or Failed). If no hydroAMP assessment is available, the definitions in the table can be used to guide the condition assessment and classification.

TABLE E-1
HydroAMP Condition Index Categories

Condition Classification Guidelines	
Condition Classification	Definitions
A Good	There is a high level of confidence that the feature will perform well under normal operating conditions. This confidence level is supported by data, studies, or observed characteristics which are judged to meet current engineering or industry standards. Routine O&M is recommended.
B Fair	There is a medium level of confidence that the feature will perform well under normal operating conditions, although it may not specifically meet engineering or industry standards. The feature may require additional investigation or studies to confirm adequacy. Minimal restrictions to operation and/or minor maintenance may be necessary.
C Marginal	There is a low level of confidence that the feature will perform well under normal operating conditions, and it does not meet engineering or industry standards. The feature requires additional investigation or studies to confirm adequacy. Restricted operation and/or non-routine maintenance are necessary.
D Poor	The feature does not perform well under normal operating conditions, and it does not meet engineering or industry standards. Physical signs of serious damage or deterioration are present (equipment failing). Significant restrictions to operation and/or extensive non-routine maintenance are necessary.
F Failed	The feature has FAILED and is not longer operable without further tests, repairs, or replacement.

i. Consequence Criteria. Consequence Rating Criteria include public or life safety issues, legal mandates, economic loss, decrease in performance, increase in life cycle costs, and/or increase in maintenance backlog. Proposed maintenance or capital investments must be evaluated based on the consequences associated with the affected component/system. The consequences of not performing the proposed activity range from High (impact) to Minimal (impact). Use TABLE E-2 below to evaluate and rate the consequences of a component's or system's failure to perform as intended.

TABLE E-2
Consequence Rating Criteria

Consequence Category	Consequence Rating Criteria
I	<p>High:</p> <ul style="list-style-type: none"> - Public or Life Safety Impact and/or - Violation of Legal Requirement(s) and/or - Forced Outage /Closure resulting in Highest Economic Loss and/or - Greatest Decrease in Performance (e.g., efficiency, capacity, reliability) and/or - Greatest Increase in Life Cycle Costs and/or - Greatest Increase in Critical Maintenance Backlog
II	<p>Medium-High:</p> <ul style="list-style-type: none"> - Forced Outage / Closure resulting in High Economic Loss and/or - Great Decrease in Performance (e.g., efficiency, capacity, reliability) and/or - Great Increase in Life Cycle Costs and/or - Great Increase in Critical Maintenance Backlog
III	<p>Medium:</p> <ul style="list-style-type: none"> - Forced Outage/Closure resulting in Moderate Economic Loss and/or - Moderate Decrease in Performance (e.g., efficiency, capacity, reliability) and/or - Moderate Increase in Life Cycle Costs and/or - Moderate Increase in Critical Maintenance Backlog
IV	<p>Low:</p> <ul style="list-style-type: none"> - Forced Outage/Closure resulting in Minor Economic Loss and/or - Minor Decrease in Performance (e.g., efficiency, capacity, reliability) and/or - Minor Increase in Life Cycle Costs and/or - Minor Increase in Critical Maintenance Backlog
V	<p>Minimal:</p> <ul style="list-style-type: none"> - Forced Outage/Closure resulting in Minimal Economic Loss and/or - Minimal Decrease in Performance (e.g., efficiency, capacity, reliability) and/or - Minimal Increase in Life Cycle Costs and/or - Minimal Increase in Critical Maintenance Backlog

j. Relative Risk Matrices.

(1) Risk is defined as the probability of failure multiplied by the resulting consequences. Since condition is generally related to the likelihood of failure, the Risk Matrix utilizes the Condition Classification (TABLE E-1), and the Consequence Criteria (TABLE E-2) to determine a risk index. Risk indices range from a low of 5 to a high of 1, and the associated Risk Rating ranges from Minimal Risk to High Risk. Components in deteriorated condition with the greatest consequences of failure are assigned the highest risk index. These ratings are useful in identifying the highest priority investments to include: (a) Major Maintenance (Phase Code MM), and (b) Major Rehabilitation (Phase Code CMR) activities. The Relative Risk Index Matrix for the Hydropower Business Line is shown in TABLE E-4 and the Relative Risk Categories are shown in TABLE E-5.

(2) Hydropower Relative Risk Values. TABLE E-3 provides further refinement of relative risk indexes shown in TABLE E-4. Each Condition/Consequence box in TABLE E-3 is assigned a value from 1-25 for use in determining relative risk within categories.

TABLE E-3

Hydropower Relative Risk Values (1-25)

A - I = 11	B - I = 5	C - I = 4	D - I = 2	F - I = 1
A - II = 16	B - II = 12	C - II = 7	D - II = 6	F - II = 3
A - III = 18	B - III = 17	C - III = 13	D - III = 9	F - III = 8
A - IV = 23	B - IV = 20	C - IV = 19	D - IV = 14	F - IV = 10
A - V = 25	B - V = 24	C - V = 22	D - V = 21	F - V = 15






TABLE E-4

Hydropower Relative Risk Index Matrix

		Condition	Condition Classification				
			F Failed	D Poor	C Marginal	B Fair	A Good
Consequence/Economic Impact	I	1	1	2	2	3	
	II	1	2	2	3	4	
	III	2	2	3	4	4	
	IV	2	3	4	4	5	
	V	3	4	4	5	5	

TABLE E-5

Hydropower Relative Risk Categories

	High Risk
	Med- High Risk
	Moderate Risk
	Low Risk
	Minimal Risk

E-5. PY Hydropower Budget Submission.

a. General. The PY Hydropower budget will be submitted in accordance with the schedule shown in the Main section of this EC, TABLE 2 – Summary of Submission Requirements, FY14 Budget.

b. Budget Data Requirements. The data required from each MSC for the PY Hydropower Business Line budget request is contained in the body of the EC, this Appendix and in the Budget Ranking Criteria spreadsheet (TABLE E-7). Definitions for each data element are contained in the “Definitions” tab of the spreadsheet. All data fields in P2/OFA related to the hydropower business line must be populated as required to be considered for the PY hydropower budget.

c. Funding Increments.

(1) General. Each MSC must begin the formal budget process by prioritizing work items for all business lines and across appropriations using funding increments. Prioritization within the Hydropower Business Line must be based on performance goals and objectives and risk-based indices. Funding increments have been established to ensure uniformity across Civil Works in developing annual budgets from the same perspective. Funding increments reflect ranking (eligibility) criteria and are described in detail in the paragraphs below. Increments 1 and 2 will receive priority consideration for budget funding and represent the Hydropower Business Line minimum budget (Initial Funding Level) for routine and non-routine activities. Funding increments, in conjunction with the business line performance goals and relative risk matrices will assist in making informed budgetary decisions.

(2) Increment 1. Activities in this initial increment include only:

(a) critical routine activities that can be completed in the PY, such as Critical Power Specific Operations & Maintenance Activities (Work Category Codes 603XX & 613XX) and Critical Joint Operation & Maintenance Activities (Work Category Codes 606XX & 616XX) and/or,

(b) critical cyclical routine activities that are needed on a regular recurring basis but not every year or,

(c) activities to avoid maintenance staff reductions to a level that will preclude performance of basic routine preventive maintenance activities, forced facility closure, public or worker life safety concerns, or violation of court orders, legal or treaty obligations in the PY.

(3) Increment 2. Activities in this initial increment include major maintenance and major rehabilitation activities and critical non-routine activities. Critical non-routine activities are those

that: (a) must be accomplished to insure project safety, and/or, (b) critical maintenance actions that are required to keep the project operating and delivering benefits. Non-routine activities are defined as “project like” in that they are a unique action with a specific beginning and end. Each non-routine activity must be shown separately to allow for individual funding decisions based on performance metrics and risk-based indices. NOTE: Total O&M funding for Increments 1 + 2 (all business lines) must be in accordance with Sub-Annex III, TABLE III-2-3.

(4) Increment 2.5 (NERC Reliability Compliance Activities). Activities in this increment include only those necessary to meet reliability standards of the NERC (see TABLE E- 6). These activities: (a) must not be included in Increments 1 & 2, (b) must be ranked separately (Increment 2.5) and (c) will be given special attention within the PY O&M budget process.

(5) Increment 3. This Increment includes only: (a) O&M activities that are necessary for minimum operation and maintenance of the facility and/or (b) for remaining critical activities not included in Increments 1& 2. Preparation of reports for Major Maintenance (MM) and Rehabilitation (MR) should be included in this increment. MM and MR activities must be supported by an approved and signed report before they can be included the PY budget.

(6) Increment 4. This increment includes O&M activities that are both routine and non-routine and that are needed to sustain the expected future benefits of the project. These activities provide funding for: (a) the level of service that customers, stakeholders, and others have come to expect and depend upon, (b) sustaining public safety and (c) economic, environmental and social benefits.

(7) Increment 5. This increment includes O&M activities that do not specifically meet the requirements above but are deemed to be prudent and necessary. Activities that have a high expected return on investment and that enable greater levels of performance in future years should be included in this increment.

d. Work Item Descriptions. The description of individual work items (packages) must be specific in nature and written in clear and concise terms. The use of generic language is unacceptable and may result in a lower ranking for the work item. Work that is critical to the project must be clearly identified and ranked higher in the budget. For line item comparison purposes, the following repair and replacement activities shall not be combined with other work items in the development of the PY budget:

(1) Funding to restore a regionally critical generating unit that is in Forced Outage status. Benefits for ranking purposes must be included in the P2 database and expressed in MW-Yrs (MW of nameplate capacity of generating unit multiplied by remaining life of generating unit in years).

(2) Funding to restoring the de-rated capacity of a generating unit. Benefits for ranking purposes must be included in the P2 database and expressed in MW-Yrs (MW of de-rated capacity restored multiplied by remaining life of generating unit in years).

(3) Funding to improve the condition or reduce the likelihood of failure of a critical power component under the hydroAMP condition assessment methodology. In lieu of MW-Yrs, a numeric code must be entered in the P2 database to reflect the component type as follows:

- 1 = Generator
- 2 = Turbine
- 3 = Governor
- 4 = Exciter
- 5 = Transformer
- 6 = Circuit Breaker

- 7 = Surge Arrestor
- 8 = Batteries
- 9 = Cranes
- 10 = Compressed Air System
- 11 = Emergency Closure Gate and Valve

(4) Funding to extend the life of a generating unit. Benefits for ranking purposes must be included in the P2 database and expressed in MW-Yrs (MW of nameplate capacity of generating unit multiplied by the number of years the generating life has been extended in years).

e. Initial Funding Level. The Initial Funding Level for each appropriation is defined as follows:

(1) Investigations. There are no projects in this category for the Hydropower Business Line.

(2) Construction. Each construction project or separable element in the Initial Funding Level is limited to the amount of funding needed for earnings (no more or less) on the contracts funded in the PY-1 budget and continuing into the PY, plus engineering and design, supervision and administration, and real estate activity costs associated with continuing construction of that project or separable element. Construction projects identified in the PY-1 budget for suspension and other projects not budgeted in PY-1 will have an Initial Funding Level of zero. "New start" construction projects should be submitted per paragraph E-4.b. above.

(3) Operations & Maintenance. The Initial Funding Level for Operations and Maintenance will be the total of Increments 1,2 and 2.5 only. Work Category Codes must be entered into P2 (OFA) for each O&M budgeted item regardless of increment. Increments 1 & 2 will seek to provide the greatest benefit for the investment consistent with performance objectives, performance goals and risk-based indices and be sufficient to meet minimum legal responsibilities for environmental compliance, operation and safety. Subsequent increments will provide additional benefits as measured by performance measures. Simple pro-rata allocations by district and/or project will not result in the expected performance based budget and should not be done. All budgeted items must document performance according to the appropriate Business Program criteria. NOTE: Operations activities should be budgeted separately from maintenance activities, i.e., do not aggregate or sum operations and maintenance activities together as one activity. Similarly, do not aggregate operations or maintenance activities with a joint activity.

f. Joint Costs. See Sub-ANNEX III-2 for PY budget guidance on joint costs.

E-6. PY Special Budget Data Requirements.

a. Recurring Baseline Project Costs.

(1) Reference the database developed for the FY 12 hydropower budget wherein each District was required to identify recurring routine baseline costs for each hydropower project. See TABLE E-7 for the Recurring Baseline Project Costs (Format).

(2) HQUSACE will use the Recurring Baseline Project Cost database to aid in the development of the PY hydropower budget request. To assure accuracy and completeness of the database, MSCs must update their spreadsheets as needed and submit them to the HQUSACE Hydropower Business Line Manager when their PY hydropower budget request is submitted.

b. Hydropower Modernization Initiative – Outyear Year Program.

(1) In FY 14, the HMI will be used extensively to establish a long term asset management strategy based on economics and risk principals. The HMI will quantify risks associated with lack of funding, quantify the environmental benefits associated with CO2e production avoided verses the investments made and will provide a consistent process for investment planning across the Federal hydropower sector.

E-7. PY Budget Schedule. Submission dates for budget events are provided in The MAIN part of this EC, TABLE 2, entitled Summary of Submission Requirements, FY 14 Budget.

TABLE E-6

NERC Reliability Compliance Activities



Table E-6

TABLE E-7

Budget Ranking Criteria



Table IV-7 FINAL.xls

TABLE E-8

Recurring Baseline Project Costs (Format)



Table IV-8 FINAL.xls

APPENDIX F

Navigation

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APPENDIX F

Navigation

F-1. Background. The Corps has had the navigation mission since 1824. The Corps plans, designs, operates and maintains projects that support 2.1 billion tons of commerce annually. Many of the projects provide other outputs such as Flood Risk Management, Hydropower, Water Supply, Ecosystem Restoration, Environmental Stewardship and Recreation. The Corps operates and maintains 926 navigation projects ranging from shallow draft harbors; coastal, inland, and intracoastal navigation systems with 241 locks at 196 sites, to major deep draft ports.

F-2. Purpose. The Corps' Navigation goal is to provide safe, reliable, efficient, effective and environmentally sustainable waterborne transportation systems for movement of commerce, national security needs, and recreation. The purpose of this effort is to develop a risk informed, performance based budget for carrying out the Navigation mission.

F-3. Civil Works Program Objectives. TABLE F-1 displays the Navigation program objectives and Performance Measures related to the current Civil Works Strategic Plan. The CW Strategic Plan was developed with an explicit assumption of an unconstrained resource environment to encourage an unconstrained assessment of the nation's water resources needs and potential Corps response. Preparation of the Program Year (PY) Budget Request requires the recognition of a constrained budget environment and the ongoing effort to evolve better budget linked performance measures. TABLE F-2 displays the program objectives, performance measures and/or performance ranking and rating criteria which support and/or supplement TABLE F-1 program objectives and performance measures to reflect the near term realities of a constrained PY budget environment.

TABLE F-1	
Navigation Objectives and Performance Measures	
Program Objectives	Performance Measures
Invest in navigation infrastructure when the benefits exceed the costs.	<ul style="list-style-type: none"> - BCR (project specific measure) - Annual net benefits
Support sustainable regional, basin-wide, or watershed planning and activities in partnership with others.	<ul style="list-style-type: none"> - Percent of projects recommended in Chief's reports that apply watershed principles
Enhance Life-Cycle Infrastructure Management. Improve the reliability of water resources infrastructure using a risk informed asset management strategy.	<ul style="list-style-type: none"> - Percent of navigation asset inventory with recent structural/operational risk assessments, including SPRA assessments. - Percent of navigation asset inventory risk assessments that reveal a significant level of risk (including DSAC Class I, II and III projects). - Number of funded actions underway that address assets where there is a significant level of risk.
Operate and manage the navigation infrastructure so as to maintain justified levels of service in terms of the availability to commercial traffic of high use navigation infrastructure (waterways, harbors, channels).	<ul style="list-style-type: none"> - Risk and Reliability: Operational Condition Assessment and Impacts

F-4. Navigation Performance Measures.

a. Competition for Federal funds is very keen and getting tighter each year. In recent years, we have had to make very hard choices in distributing scarce Federal dollars. In a constrained funding environment, we must prioritize the many worthwhile investment opportunities and ongoing maintenance needs across the entire spectrum of projects. This means that we have to concentrate available resources on the highest priority projects in terms of reducing risk and providing optimal reliability to maximize benefits. In the Navigation program, we are directing funds primarily to those channels, harbors, and waterways systems and segments that provide the highest return from commercial navigation. The Corps' Navigation program is well established and valued, however our ability to continue to provide safe, efficient, and reliable navigation to our ports, waterways and harbors to meet the needs of current and future generations is dependent upon adequate investments. Such investments provide the necessary investigations of problems, development of solutions, timely implementation of authorized projects, reliable operation and availability of our infrastructure, preventative maintenance, facility modernization or improvement, and adequate data management information systems, which are all directed at increasing operational capabilities and efficiencies. The purpose of this budget guidance is to ensure the development of convincing rationale and justification of the budget request.

b. Accordingly, a nationwide perspective must be maintained to assure that available funding provides the greatest public benefit for the investment. The safety, security, and reliability of our existing, high performing infrastructure must be maintained; new investigations to assure high yield navigation investments are advanced; and projects that are under construction or rehabilitation must be brought on line quickly so that benefits may be achieved as soon as possible. Coastal ports and harbors and inland and intracoastal waterways have been and continue to be significant contributors to the national and international movement of commodities. A cursory review of the Corps navigation assets reveals that on a nationwide basis: Over half of all inland navigation locks have exceeded their original 50-year service life; our top 59 coastal ports have full project depth on average only 30 – 35 percent of the time, and only for the middle half of the channel; a substantial portion of the bridge inventory is approaching or has exceeded its service life; and our coastal jetties and breakwaters are deteriorating. In response, the Corps must pursue an on-going program to rehabilitate, modernize, or replace structures and components, and maintain channels exhibiting a deteriorating ability to meet system demands.

c. To achieve the Navigation objectives in TABLE F-1, the following budget strategies and performance measures are established for the PY budget development. Each of the budget strategies and measures are designed to demonstrate that each budget item makes sense and contributes to the Navigation goals and supporting objectives.

TABLE F-2	
Navigation Budget Performance Measures	
Budget Strategy	Ranking Criteria
Keep ongoing studies or PEDs going if likely to produce recommendation for project (I) or start new phase of studies or PED (I)	Date of Agreement – executed or expected Commercial tonnage increase % reduction in delay costs Years to complete Watershed study –y/n Benefit to Cost Ratio (BCR) – Feasibility & PED only
Complete ongoing construction to start getting benefits of high performing navigation projects (each contract should be separate line item) (C)	BCR Inland Waterways Users Board priority for Inland Waterways Availability of Inland Waterways Trust Fund (IWTF) funding for Inland Waterways Years to complete Other Business Line purpose outputs
Initiate and complete rehabilitations (each contract should be separate line item) (C)	Inland Waterways Users Board priority for Inland Waterways Availability of Inland Waterways Trust Fund (IWTF) funding for Inland Waterways Relative risk of failure (OCA & DSAC) BCR Years to complete
Initiate and complete dam safety assurance/seepage control/static instability correction projects (C)	Relative risk of failure – risk compared to other Corps dams (portfolio risk assessment if available in PY) Critical loss of pool and /or navigation
Operations - Assure that projects perform as designed (O&M)	Cumulative benefits Cumulative O&M costs for above benefits (over set time period)
Maintenance - Make sure projects are safe to operate (managing risk) (O&M)	Navigation channel availability Lock closures exceeding 24 hours and one week duration due to mechanical failures – scheduled and unscheduled Operational Condition Assessment (OCA) and consequences/impact Relative Risk Rating Cumulative benefits Cumulative O&M costs for above benefits (over set time period)
Fund adequate data collection (Remaining Items, I, C, O&M)	Consequence of inadequate data

F-5. Budget Screening Criteria.

- a. New Start Definition – See Sub-Annex I-1 for studies and Sub-Annex II-2 for construction projects.
- b. New Phase Definition - See Sub-Annex I-1.

F-6. Increments.

a. Increment 1 definitions. For definitions of increments for the Investigations, Construction, and O&M accounts see Annex I, II and III, respectively.

(1) Investigations (for studies and preconstruction, engineering, and design). Remaining Items (R&D, data collection, PAS, etc.) – initial level will be established by HQ.

(2) Construction (Includes: specifically authorized projects, major rehabilitation projects, dam safety assurance/seepage control/static instability correction projects, dredged material disposal facilities, sand mitigation, beneficial use, and CAP projects).

(3) Operation and Maintenance (O&M).

(a) Navigation Segments. Inland waterway operation and maintenance costs should be broken out by major waterway segment.

(b) The first increment will seek to provide the greatest benefit for the investment consistent with performance measures and sufficient to meet minimum legal responsibilities for operation, environmental compliance and safety. Subsequent increments will provide additional benefits as measured by the performance measures. All increments must document performance according to the appropriate Business Lines criteria. The last increment for each project is the capability level. Operation increments will be submitted separately from maintenance increments. This means that for some projects there will be an operation line item and a maintenance line item in the initial level and subsequent levels.

(c) For each MSC's total combined amount among all Business Lines for operation and maintenance for Increments 1 and 2, see Sub-Annex III-2, TABLE III-2-3. This initial amount is for all the MSC's highest priority O&M requirements as prioritized below. Simple pro-rata allocations by district and/or project, or inclusion of low priority work packages and projects, will not result in the expected performance based budget and should not be done.

(d) Additional O&M criteria. (Definition of terms will follow)

- Sufficient to meet minimum legal responsibilities for operation, safety and environmental compliance, such as:

Subsistence Harbors

Caretaker activities

Critical Harbors of Refuge

Project Condition Surveys

Environmental Compliance requirements

- Multipurpose projects when those projects are included in the minimum programs of other business lines and not a separable element

- Work required by treaties

- Removal of Aquatic Growth

(Note: Items for Surveillance of Northern Boundary Waters previously included in the Navigation Business Line are now included in the Flood Risk Management Business Line.)

(e) Dam Safety Interim Risk Reduction Measures (IRRM). See Sub-Annex III-2 for further guidance. For IRRM work funded from the O&M account, the appropriate Work Category Codes (WCC) to use are 60131-60133 for Operations activities and 61130 for Maintenance activities for navigation.

b. O&M Increment 1. Only critical routine and critical cyclical activities can be included in this increment. These activities are required to minimally operate or maintain the project and may not provide a full service operation. Routine activities are those that must be performed every year for example the operation of a lock, or are required to meet legal mandates, environmental (ESA/Biological Opinion) requirements, authorized mitigation requirements, and historic preservation. Cyclical activities are those that are required on a regular basis, but not each year. An example of a cyclical routine activity would be projects where dredging is needed on a regular recurring basis, but not every year, e.g. dredging is needed only every two years. Work packages in Increment 1 must be performance based and integral with a study/project with high outputs and consistent with ranking. What is included and what is not:

- (1) Bare Bones lock Operations: May not be full 24-hour or 7-day operation.
- (2) Bare Bones routine lock maintenance: Would not be all maintenance needs.
- (3) Critical routine minimal level of dredging for high and moderate use segments of commercial deep draft, shallow draft and inland projects: No advanced maintenance dredging.
- (4) Minimal level of dredging for Subsistence Harbors: Does not include point of origin harbor.
- (5) Minimal level of dredging for Critical Harbors of Refuge: Does not include all Harbors of Refuge.
- (6) Caretaker funding for projects or segments not expected to be funded for maintenance. Caretaker work packages provide only for the most basic mission requirements for the project to be minimally operational such as: dam safety program critical activities at the discretion of the District Dam Safety Officer, limited navigation channel surveys for public safety, minimum labor for lock/spillway operators for water control (not 24-hour operation), minimum maintenance of the lock (lubrication of key components and minor repair only), maintenance of river gauges for water control, labor for Engineering Division to manage water levels/assist with spillway gate movements for floods, droughts and other flows as required along the river system, and environmental permits required to support navigation/water release activities and comply with applicable environmental laws. Funding for maintenance dredging or funding of lock maintenance is not to be included in caretaker work packages.
- (7) Critical routine maintenance of dredged material placement sites for Item 3 above: Does not include non-routine maintenance of dredged material placement sites.
- (8) Water/Environmental Certification for critical maintenance dredging for Item 3 above: Does not include all water quality or environmental certification needs.
- (9) Bare Bones Project Condition Surveys (PCS) including low use: Does not include all anticipated PCS needs.
- (10) Critical studies for high risk coastal structures: Does not include studies of all structures.
- (11) Bare bones debris/drift removal/obstruction removal at high use ports: Does not include all anticipated removal needs.

(12) Critical routine minimal level Removal of Aquatic Growth (RAG) for high use projects: Does not include all Removal of Aquatic Growth.

(13) Dam Safety Program. See Sub-Annex III-2 for further guidance.

(14) Critical inspections, studies and routine repair for bridges determined to be critical for life safety, mission execution or compliance with Public Law. Does not include all bridges. See Sub-Annex III-2 for further guidance.

c. O&M Increment 2. Only critical non-routine activities may be included in this increment. Critical non-routine activities are those that must be accomplished to ensure project safety, and critical maintenance actions that are required to keep the project operating and delivering benefits. Non-routine activities are actions that are “project like” in that they are a unique action with a specific beginning and end. Examples of non-routine actions would be the replacement of wire ropes or valves, or the repair of failing lock, dam, or bridge components. This increment includes major maintenance (MM), as will fit, when combined with Increment 1 activities, within the overall limit of the 75% constraint. Each non-routine activity must be shown separately to allow individual funding decisions based on the performance metrics and must be shown in priority order by District and MSC Rank. Increment must be performance based and integral with a study/project with high outputs and consistent with ranking.

(1) Critical on-going non-routine maintenance.

(2) On-going major maintenance of high and moderate use projects or segments: could include new major maintenance.

(3) Critical non-routine maintenance of dredged material placement sites at high and moderate use commercial deep draft, shallow draft and inland projects or high and moderate use segments of projects.

(4) Construction of Dredged Material Disposal Facilities (DMDFs) for high and moderate use segments of commercial deep draft, shallow draft, and inland projects are no longer included in O&M and should be budgeted under Construction.

(5) Critical studies to complete Dredged Material Management Plans (DMMP) for construction of dredged material placement sites for high and moderate use segments of commercial deep draft, shallow draft and inland projects.

(6) On-going major rehabilitation studies of high and moderate use projects, which could include new major rehabilitation studies.

(7) Critical non-routine repair for bridges. Does not include all bridges. See Sub-Annex III-2 for further guidance.

(8) Critical non-routine dam safety maintenance and repairs to reduce the highest risk contributors for Dam Safety Action Classification (DSAC) I and II projects. See Sub-Annex III-2 for further guidance.

d. O&M Increment 3. This increment includes only critical operation and maintenance activities, both routine and non-routine, for the up to 25% above the minimal program level, that are defined by the state of the practice and are needed to sustain public safety and the expected future benefits of the project. This will generally include critical activities that qualified for Increments 1 or 2, but exceeded the 75% limit. This still may not represent full service levels. Dam Safety work items identified as DSAC III can be included in this increment. Preparation of reports for major maintenance (MM) and major rehabilitations (MR) can be included in this increment. MM and MR activities must have approved reports before they can be budgeted for implementation under the O&M Account for MM and under the Construction Account for MR. Each Increment 3 activity must be shown separately to allow funding decisions based on the performance

metrics, and must be shown in priority order by the District and MSC Rank. Increment must be performance based and integral with a study/project with high outputs and consistent with ranking. This may include:

(1) Critical Advanced Maintenance dredging on high and moderate use projects. Does not include all advanced maintenance.

(2) Critical minimal level of dredging and operations of low use projects that have commerce, commercial fishery, multi-agency requirements, U.S Coast Guard search and rescue, and/or public transportation.

(3) Removal of Aquatic Growth for other high and moderate use projects.

(4) Other Project Condition Surveys (PCS) including low use beyond Bare Bones annual routine level.

(5) Additional critical dredging, debris removal, lock operation and maintenance, and bridge maintenance.

e. O&M Increment 4. This increment includes critical and non-critical operation and maintenance activities, both routine and non-routine, above critical work in Increments 1 through 3, that are defined by the state of the practice and are needed to sustain the expected future benefits of the project. In most cases, activities in this increment will support continuing the level of service that users, customers, stakeholders, and others have come to expect and depend on for sustaining public safety and economic, environmental and social benefits. Multiple Increment 4 activities should be submitted that reflect the logical pieces of routine or non-routine activities beyond the 5-year average level shown in TABLE III-2-3. Each Increment 4 activity must be shown separately to allow funding decisions based on the performance metrics, and must be shown in priority order by the District and MSC Rank. Increment must be performance based and integral with a study/project with high outputs and consistent with ranking.

f. O&M Increment 5. Activities that have a high expected return on investment that enable greater levels of performance in future years should be included in this enhanced or capability Increment. Each Increment 5 activity must be shown separately to allow funding decisions based on the performance metrics, and must be shown in priority order by the District and MSC Rank. Increment must be performance based and integral with a study/project with high outputs and consistent with ranking.

F-7. Performance Based Budget Increment(s). Add additional budget items for logical, needed increments that contribute to the program goals. Ranking will be based on ranking criteria shown in the spreadsheet TABLE F-14 and listed below. The basis for adding increments in terms of budget request for a project will be based on the demonstrable beneficial impact on increasing average annual net benefits by accelerating project completion, or improved performance, additional outputs or increased reliability in the PY. There are three key performance measures that will be considered: (1) reduction in years to completion, (2) increase in annual net benefits, and (3) BCR for PEDs, construction, and rehabilitations.

F-8. Risk Assessment of Navigation Assets. The PY budget continues to improve on USACE asset management efforts with the Navigation, Hydropower and Flood Risk Management business lines using a common format to address risk. For PY, the Relative Risk Rankings will continue to use the 1 through 25 and 1 through 5 rating scales, where 1 is the most critical need, to coincide with the DSAC and Levee Safety Action Classification (LSAC) rating scales of I through V. Navigation assets are established under 4 groups: (1) Inland Navigation, (2) Coastal Navigation, (3) Coastal Navigation Structures (CNS) including jetties, breakwaters, and training works, and (4) Bridges. There will be five levels of Probability/Condition/Structural Damage and five levels of Consequences/Economic Impact/Functionality associated with each of the Navigation asset groups. These will be used to develop a Relative Risk Ranking Matrix shown in TABLE F-3 for all navigation categories. The Relative Risk Ranking Matrix values will be applied to each budget

work package and will be generated automatically in OFA, except for (1) inland and intracoastal navigation structures, which will come from the Operational Condition Assessment (OCA) and Risk process and (2) bridges which will come from the OCA and risk process described in Annex III and contained within the Corps of Engineers Bridge Inventory System (CEBIS). In addition to the Relative Risk Ranking 1 through 25, OMB has requested uniform rankings for consistency across Business Lines. Therefore, the Relative Risk Rankings in TABLE F-3 will be converted to 1 through 5 rankings as shown in TABLE F-4. The 1 through 5 Ranking will be automatically generated in OFA from the 1 through 25 Rankings, except for inland and intracoastal navigation structures, which will come from the OCA and Risk process.

a. A risk assessment involves identifying sources of potential conditions, assessing the likelihood or confidence level that they will occur and the consequences if it does occur. Operational Condition Assessments were performed on all inland and intracoastal waterway navigation structures during FY 10 and the first quarter of FY 11. The latest OCAs must be used to determine the Probability/Condition rating for each non-routine maintenance work package for inland and intracoastal structures for the PY budget preparation. In addition, the economic consequences generated by the OCAs will be used to populate the Consequence column for non-routine maintenance work packages for inland and intracoastal structures. Project condition classifications for budget requests shall be developed for each project/maintenance budget work package in accordance with TABLES F-5, F-7, F-11 (for coastal navigation structures only, based on input from Tables F-9 and F-10), whichever is applicable. For non-routine maintenance work packages for inland and intracoastal navigation structures, the condition will be as determined by the OCA process. For work packages for coastal navigation structures, the structural condition rating (Table F-9) and functional condition rating (Table F-10) will be determined by updating the CNS Tier 1 District Condition Assessment Tool. These classifications will provide for the initial basis for capturing the true state of the infrastructure or component thereof. In addition, these classifications provide the foundation for managing USACE infrastructure uniformly and consistently using lifecycle asset management principles, systems and risk-informed condition indices for operating and maintaining projects while embracing the concept of high performance priority goals. It is critical that an honest, defensible assessment and evaluation of each project be made for the ranking process in order to accurately provide a snapshot of where scarce resources need to be allocated. Therefore, OCAs must be used for all non-routine inland and intracoastal budget work packages for navigation structures and the CNS Tier 1 District Condition Assessment Tool must be used for all Coastal Navigation Structures.

b. Activities, components, and projects will be evaluated for the consequences and economic impacts of failure and ranked in accordance with the OCA process economic condition rating for non-routine navigation structures and TABLES F-6, F-8, or F-12, which ever is applicable.

c. TABLES F-5 and F-6; TABLES F-7 and F-8; TABLES F-9 and F-10; TABLES F-11 and F-12, and the OCAs for inland and intracoastal structures, together form the basis of the "Relative Risk" based methodology which supports the Corps risk-informed direction for making investments decisions and provide the information to populate TABLE F-3, Navigation Relative Risk Ranking Matrix. The "Relative Risk Ranking" values are determined from TABLE F-3 using both the "Probability/Condition" classification and the "Consequence/Economic Impact" category values established for each project or budget item, except for non-routine work packages for inland and intracoastal navigation structures. These values will be auto-populated by P2 OFA, except for non-routine work packages for inland and intracoastal navigation structures. Note that more than one project/item can populate a box. Matrix values will be used in making informed and wise investments, minimizing risk and providing maximized benefits to the public. Ranking within each box (if required) will be determined as appropriate and based on supporting justification from the MSC for projects that appear to be "out of place" in their matrix table, and in the case of inland and intracoastal navigation structures, analysis of the more detailed condition and consequence data from the OCA and Risk process.

d. Inland Navigation. Consists of navigation locks, dams, and channels that combine to determine system availability for movement of commercial goods. In FY 10, Asset Management developed, trained

and deployed the national Operational Condition Assessment (OCA) process in all MSC's with inland and intracoastal navigation. The companion OCA Administrative Tool was used by Districts to define the components that make up their locks, dams, and structures. The administrative tool has all the inland navigation projects pre-built into its database and users then selected their project and answered simple questions about the make up of their project (e.g. how many lock chambers, date in service of each lock chamber, etc.). After this the user was presented a set of screens that walks them through all the different subsystems that make up a lock and dam and allowed them to select components and subcomponents that make up their project. Multi-disciplinary and multi-District MSC OCA teams then performed the actual on the ground project site operational condition assessment process within their MSC. The OCA condition results are then entered into the OCA Data Collection Tool, which is built on the previously determined subsystems, components and sub-components at that project site.

(1) Navigation Lock Components. Continuing on the work that began in PY-1 (FY 13) the PY (FY 14) non-routine maintenance work packages for navigation lock components will be derived from the OCA Tool. The subsequent risk and consequence work from the national PDT determined component importance factors for mission and safety for all of the components in the inland navigation inventory. Therefore, TABLE F-5 has been superseded by the more detailed work of the national Inland Risk PDT and will not be used for the non-routine maintenance work packages.

(2) Condition Classification and Assessment. Begins with a determination of which components are critical (potential to halt navigation) and which are non-critical (limited potential to halt navigation). Predicted component conditions should be determined by completed Operational Condition Assessments for inland and intracoastal navigation structures. The OCA process for performing operational condition assessments as mentioned above can be illustrated in Figure 1 below. Detailed descriptions of the process OCA teams used to implement the OCAs can be found on the Asset Management Sharepoint site at: <https://kme.usace.army.mil/CoPs/AMC/default.aspx>. Go to the web site, page down to "Shared Documents", then select "OCA Training Manual_OCA Software User Guides F1.2". The condition rating from the OCAs are then combined with the component importance factors (mission and safety) (as determined by the national risk PDT) to determine a "condition classification" which enables gradation within the condition axis of the 5x5 matrix to better assist in investment decisions. For channels and other items where OCAs are not available, predicted component conditions should be assessed by a review of surveys, multi-disciplined inspection reports, on-site reviews, rating criteria, and/or Facilities and Equipment Maintenance (FEM) operation and maintenance records (when available) and projected to the end the PY-1. The predicted condition of the component is a critical factor in determining the risk of unscheduled closures. Output of the process is shown in TABLE F-5 below.

		TABLE F-3 - Navigation 1-25 Relative Risk Values Matrix				
		Condition Classification				
		F	D	C	B	A
Consequence	Condition	Failed	Inadequate	Probably Inadequate	Probably Adequate	Adequate
		Consequence/Economic Impact	I	1	2	4
II	3		5	8	12	16
III	6		9	13	17	20
IV	10		14	18	21	23
V	15		19	22	24	25

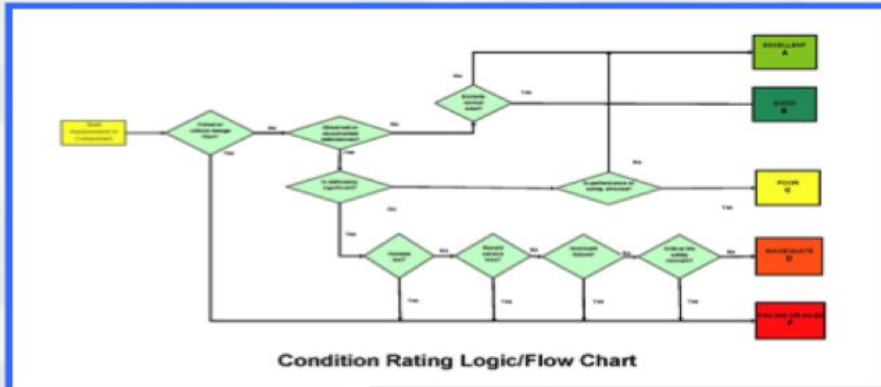
	High Relative Risk
	Med-High Relative Risk
	Medium Relative Risk
	Low Relative Risk
	Minimal Relative Risk

		TABLE F-4 - Navigation 1-5 Relative Risk Index Matrix				
		Condition Classification				
		F Failed	D Inadequate	C Probably Inadequate	B Probably Adequate	A Adequate
Consequence/Economic Impact	Consequence					
	I	1	1	2	2	3
	II	1	2	2	3	4
	III	2	2	3	4	4
	IV	2	3	4	4	5
	V	3	4	4	5	5

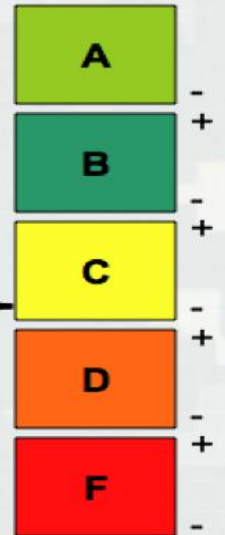
ILLUSTRATION F.1

(For Illustration Purposes Only)

Assigning Condition Ratings



Condition Rating Logic/Flow Chart



Rating Increment	Rationale
Plus (+)	a. The component's condition has worsened and the rating has dropped to the next lower rating since the last OCA inspection cycle. OR b. There is no evidence, documented or observed, that the component's condition will continue to worsen to the next lower condition rating within the next OCA inspection cycle.
Neutral	a. The condition rating is the same as the last OCA inspection. OR b. There is no definitive evidence, documented or observed, that the condition will worsen and drop to the next lower condition rating within the next OCA inspection cycle.
Minus (-)	a. There is definitive evidence, documented or observed, that the component's condition will worsen to the next lower condition rating level(s) within the next OCA inspection cycle. OR b. If in a "failed" state, there is a high degree of confidence that the component will completely fail within the next OCA inspection cycle.

CONDITION RATING	DEFINITION
A EXCELLENT	1) Has not failed AND 2) does not have critical design flaw AND 3) no documented or observed deficiencies based on available data or studies AND 4) does not show signs of normal wear
B GOOD	1) Has not failed AND 2) does not have critical design flaw AND 3) no documented or observed significant deficiencies based on available data or studies AND 4) deficiencies do not impact performance or safety. Best condition rating allowed if component shows signs of normal wear.
C POOR	1) Has not failed AND 2) does not have critical design flaw AND 3) no documented or observed significant deficiencies based on available data, studies, or observed project performance issues AND 4) deficiencies do impact performance or safety.
D INADEQUATE	1) Has not failed AND 2) does not have critical design flaw AND 3) has documented or observed significant deficiencies based on available data, studies, or has an observed project performance issue AND 4) does not violate law, failure is not imminent before next OCA, has not experienced closure/loss of service due to current condition in recent history, and no critical life safety concern exists.
F FAILING OR FAILED	1) Has failed OR 2) has critical design flaw OR 3) has documented or observed significant deficiencies based on available data, studies, or has an observed project performance issue AND one or more of the following is true: violates law, failure is imminent before next OCA, has experienced closure/loss of service due to current condition in recent history, or critical life safety concern exists.

TABLE F-5 Inland and Intracoastal Navigation Condition Classification, Except Non-routine Structures using the OCA Workbook		
Condition Classification		Condition Description
GOOD	A	ADEQUATE (Failure unlikely within budget cycle)
MODERATE	B	PROBABLY ADEQUATE (Less than 50% probability of failure within budget cycle)
POOR	C	PROBABLY INADEQUATE (Failure could occur within budget cycle)
FAILING	D	INADEQUATE (High probability for failure within budget cycle)
FAILED	F	FAILED (Already failed or failure will occur within budget cycle)

(3) Consequences of diminished Navigation feature performance are computed for each budget line item that could result in an unscheduled closure or diminished channel depth and/or width. For inland and intracoastal navigation structures, the OCA process will establish the initial transition from tonnage to economic consequence of unscheduled closure. The economic consequences will be a function of the probability of failure of the components and the economic impacts as determined by the Inland Navigation Center of Expertise in LRH and calculated from the OCA risk process. Note that these values will initially be considered as an “annual” economic impact factor for this baseline process.

(4) OCA Tool for Development and Input for inland and intracoastal navigation structures work packages. For PY (FY 14) the Corps will use an interim solution, an Excel Workbook that provides the basic functional capability of the OCA Tool. The workbook will be available via the website: <https://assetmanagement.usace.army.mil/oca/budget/Login.aspx> for download and use in developing integrated budget work packages. Users will be required to register and then use CAC authentication to download their respective District’s inland and intracoastal navigation projects from the central OCA Tool national database. Each District workbook will have all data required from the OCA database in a separate tab for each navigation project site. The workbook will also include an Instructions Tab as well as a Summary Tab to manage your work packages.

TABLE F-6	
Inland and Intracoastal Navigation Consequence/Economic Impact Category for Channels and Structures	
Consequence Category	Consequence Rating Criteria
1	<p>Maximum risk to mission For Channels: Highest economic loss; Over 5 billion ton-miles. <i>Economic level thresholds are in development.</i> For Structures: Highest economic loss determined by OCA Tool and is a function of normalized risk and economic data from the National Risk PDT for both National IMTS and its river system. Probable life safety impact Minimum Acceptable Operations Service Level (see definitions) Court Decree Mandated Action Shutdown of energy generation or distribution facilities for national public use with no alternative modes of transportation (e.g. power plants and oil distribution facilities)</p>
2	<p>High risk to mission No life safety impact For Channels: High economic loss; Between 3 billion and 5 billion ton-miles. <i>Economic level thresholds are in development.</i> For Structures: High economic loss determined by OCA Tool and is a function of normalized risk and economic data from the National Risk PDT)for both National IMTS and its river system. Diminished cost efficiency of energy generation or distribution facilities for national public use with higher cost alternative modes of transportation (e.g. power plants and oil distribution facilities)</p>
3	<p>Moderate risk to mission No life safety impact For Channels: Moderate economic loss; Between 1 billion and 3 billion ton-miles. <i>Economic level thresholds are in development.</i> For Structures: Moderate economic loss determined by OCA Tool and is a function of normalized risk and economic data from the National Risk PDT for both National IMTS and its river system.</p>
4	<p>Low risk to mission No life safety impact For Channels: Low economic impact; Between 500 million and 1 billion ton-miles. <i>Economic level thresholds are in development.</i> For Structures: Low economic impact determined by OCA Tool and is a function of normalized risk and economic data from the National Risk PDT for both National IMTS and its river system.</p>
5	<p>Negligible risk to mission No life safety impact For Channels: Least economic; Under 500 million ton-miles. <i>Economic level thresholds are in development.</i> For Structures: Least economic impact determined by OCA Tool and is a function of normalized risk and economic data from the National Risk PDT for both National IMTS and its river system.</p>

e. Coastal Navigation and Inland Harbors. Consists of Navigation channels and the availability of the maintained depth for movement of commercial goods. The 59 coastal ports with over 10 million tons of cargo per year operated at an average middle half width channel availability of 30% to 35%. This restriction results in tidal delays for import/exports and missed opportunities. A concentrated effort to improve the channel half-width availability will commence with a deliberate tracking program implemented to illustrate successful investment.

(1) Condition Assessment. Asset Management principles provide a uniform condition assessment of each component. The predicted condition of the component is a critical factor in determining the risk of unscheduled closures. Channel condition is determined from the latest hydrographic surveys or published hydrographic survey reports and projected to the end of PY-1 based on historical information. The condition level is determined from TABLE F-7 below. The percentage listed under the probability/condition listed below refers to the middle half channel availability that would occur just prior to the PY without the requested funding increment.

TABLE F-7		
Navigation Channels and Harbors Condition Classification		
Condition Classification		Condition Description
GOOD	A	95% at Half Channel Availability at maintained Depth
MODERATE	B	75% at Half Channel Availability at maintained Depth
POOR	C	50% at Half Channel Availability at maintained Depth
FAILING	D	25% at Half Channel Availability at maintained Depth
FAILED	F	0% at Half Channel Availability at maintained Depth

(2) Consequences of diminished Navigation feature performance. These are computed for each budget work package that could result in diminished channel depth and/or width. Each consequence or economic impact listed below is independent of each other. For a work package to qualify for a particular consequence level it only has to satisfy only one of the listed consequences. For work packages that fit into more than one consequence level, choose the consequence level that most closely fits the work package. The consequence level is determined by TABLE F-8 below.

(3) Risk Matrix (follows the 5x5 matrix established above).

(4) Definitions.

(a) Channel Availability Percentage - Determined by the amount of time the channel is available/needed at maintained depths. Does not include channel availability due to tidal fluctuations.

TABLE F-8	
Navigation Channels and Harbors Consequence/Economic Impact Category	
Consequence Category	Consequence Rating Criteria
1	Demonstrated ¹ highest economic impact or >10 million Tons Imminent life safety impact Court Decree Mandated Action (to include environmental) DoD Strategic Ports Shut down of Energy Distribution Facilities with no alternate modes of transportation
2	Demonstrated ¹ high economic impact or 5 - 10 million Tons Probable life safety impact Alternate modes of transportation exist for Energy Distribution Facilities, but at a higher cost than water borne transportation
3	Demonstrated ¹ moderate economic impact or 1 - 5 million Tons Possible life safety impact
4	Low economic impact ¹ or <1 million Tons No life safety impact
5	Negligible economics (Recreation Harbors, No commercial Activity) No life safety impact.

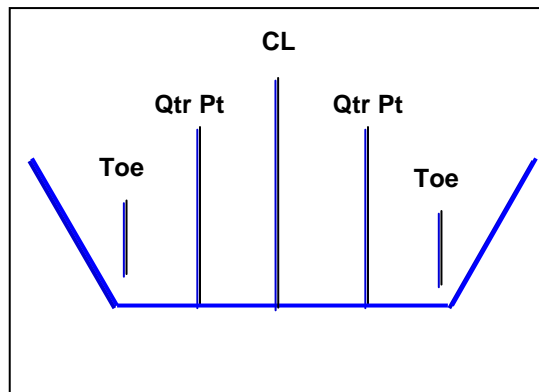
¹ Thresholds and basis for economic impact are under development. One measure of economic impact can be demonstrated using rate savings benefits, transportation cost savings, or damages avoided.

(b) Energy Distribution - Includes impacts to harbors which serve as principal import/export ports of coal, natural gas, and other products required to produce energy.

(c) Middle Half Channel availability - Channel availability between quarter points, see Figure 2 below.

ILLUSTRATION F.2

Channel Availability



(d) Harbor of Refuge - Section 175.400 of Title 46 (Shipping), Chapter I (Coast Guard) of the Code of Federal Regulations defines a Harbor of Refuge as "Harbor of safe refuge means a port, inlet or other body of water normally sheltered from heavy seas by land and in which a vessel can navigate and safely moor."

(e) Life Safety Impacts - Includes impacts to subsistence harbors and critical harbors of refuge.

(f) Subsistence Harbor - Communities dependent for survival on harbors that provide principal means of receiving essential goods and services for which alternative means of delivery are not practical.

f. Coastal Navigation Structures (CNS) consist of jetties, breakwaters, and training works that protect coastal navigation channels. In FY 11 and FY 12, Asset Management developed and deployed the Tier 1 District Condition Assessment process and companion Administrative Tool based on the current Guidelines for National Asset Management Product Teams.

(1) The Tier 1 effort identifies the structures that pose the greatest threats to national navigation needs. To accomplish this, the Tier 1 District Condition Assessment Tool has been developed to ensure all structures are identified and to record the structural condition and functional condition of each structure. This tool, which requires CAC registration, which may be accessed at <https://assetmanagement.usace.army.mil/coastal/oca/basicinspection/login.aspx>. A User Guide is available within the tool and at: <https://kme.usace.army.mil/CoPs/AMC/CSAM/default.aspx> in the Shared Documents folder under "CNS Tier 1 District Condition Assessment Tool User Guide". A Senior Coastal Engineer in cooperation with the Field Inspector can then edit the database updating each Structural Condition Rating (TABLE F-9) and Functional Condition Rating (TABLE F-10). Component conditions should be assessed by a review of surveys, inspection reports, on-site reviews, rating criteria, and/or operation and maintenance records (when available). The ratings assigned will be reviewed for completeness by the Regional Asset Manager (RAM) and for technical consistency by a national QA/QC Team.

(2) The Structural and Functional Condition Ratings are then combined in a 5x5 matrix using Table F-11 to develop a District Condition Rating (DCR). Output of the process is shown in TABLE F-11 below. To maintain consistency with the current Budget process, the DCR is used to determine a "condition classification" which enables gradation within the condition axis of TABLE F-3, to better assist in investment decisions. Consequences of diminished CNS feature performance are based on criteria defined in TABLE F-12, which are then used to complete the Consequences/Economic Impact axis of TABLE F-3.

(3) As part of the continuing development of the CNS AM process, future CNS Operational Condition Assessments / Operational Risk Assessments (OCAs/ORAs) will be prioritized using the condition analysis, from the Tier 1 Structural and Functional Condition Ratings, in combination with consequences using the ERDC Coastal Structures Management, Analysis, and Ranking Tool (CSMART) to rank the coastal navigation structures in terms of those with the greatest risk. Metrics include, but are not limited to, total annual commercial tonnage supported, annual commercial fish landings supported, cruise and ferry passengers supported, and project classifications such as Harbor of Refuge and Subsistence Harbor. An ERDC Technical Note describing the data sources and ranking methodology used by CSMART in more detail is available at <http://chl.erdc.usace.army.mil/library/publications/chetn/pdf/chetn-iii-80.pdf>.

TABLE F-9 CNS Structural Condition Rating (SCR) Table	
Insignificant damage or defects – A	<p style="background-color: #00ff00; color: black; padding: 2px;"><u>1. There is no evidence that the structure has a critical design flaw or has been significantly damaged.</u></p> <p>Only small areas of the structure show signs of deterioration, which is considered to be insignificant. 2. Loss or deterioration of any material composing the structure is limited to very few units. 3. There is no change in the geometry of the structure. There are no apparent areas of settlement or displacements of the structure's alignment and slopes. The head, the root, and any corner or spurs of the structure show no change. 4. There is no exposure of any other critical material or elements of the structure. 5. The foundation of the structure is sound and there is no evidence of scour or loss of supporting substrate around the base of the structure.</p>
Minor damage or defects - B	<p style="background-color: #90ee90; color: black; padding: 2px;"><u>1. Deterioration is visible but the structure appears to be sound and repairs are not indicated.</u></p> <p>Minor deterioration is noted over small areas of the structure. 2. In deteriorated areas, less than approximately 10% of the of any material composing the structure shows signs of deterioration, and less than approximately 10% of any type of the material composing the structure has been lost. 3. The geometry of the structure shows limited change. The crest elevation may have been reduced by less than 10% of the structure's above MLLW profile, and the crest width may have slightly decreased. Minor displacement of the structure's alignment and side slopes is evident. The head root, and corners or spurs of the structure show no more change than other sections of the structure. 4. The noted deterioration does not expose any other critical materials composing the structure. 5. Foundations components are sound but slight scour may exist near the toe of the structure.</p>
Moderated damage or defects—C	<p style="background-color: #ffff00; color: black; padding: 2px;"><u>1. The structure is showing deterioration that may require repair in the near future.</u></p> <p>2. Moderate deterioration of materials is noted over many areas of the structure. A moderate amount (10-20%) of materials composing the structure shows signs of deterioration, and a moderate amount (10 - 20%) of any material composing the structure has been lost. 3. The geometry of the structure is showing significant change in some areas. The structure's cross section is losing crest elevation and/ or crest width. Some areas of the structure may have settled, collapsed, or eroded to an extent that other portions of the structure are exposed or left unsupported. In the damaged area, the above MLLW cross sectional profile may be reduced by 20 to 50%. The crest width may reduce up to 1/3 of its original width at the elevation of the original crest, but repairs would be possible by replacing a few armor units. A moderate amount of displacement in the structure's alignment and slopes is present (often as a result of lost or slumping material on one side of the structure causing the centerline of the structure to shift or due to units sliding down the side slopes). Bridging of armor stones may also be occurring. The extent of these displacements renders the structures stability to be vulnerable. The head(s) may have receded by 10-20 % of its original length. The root is still firmly attached to the shore, but scour or flanking may exist at the trailing end of the structure. Corners or spurs of the structure may have slightly greater damage than the rest of the structure. 4. In the deteriorated regions, minor amounts of other critical materials composing the structure are now exposed but there is no evidence of the exposed material being lost or damaged. 5. Foundation components of the structure may be starting to show deterioration by changing in shape or movement of the base material or by corrosion. Evidence of scour at the toe of the structure or under the structure is present.</p>
	<u>1. An extensive portion of the structure has deteriorated to a condition that repairs are indicated.</u>

<p style="text-align: center;">Seriously Degraded -- D</p>	<p>2. Deterioration of materials is noted over a significant area of the structure. A significant amount (20-40%) of materials composing the structure shows signs of deterioration, and a significant amount (20-40%) of any material composing the structure has been lost. 3. The geometry of the structure is significantly changed. The above MLLW cross-section profile may have been reduced to >50% of its original above MLLW profile. Some area of the structure have settled, collapsed or eroded to an extent that, in the damaged area, no portion of the crest is still located at the original elevation and the resulting crest has lost 70% of the above MLLW crest elevation (crest elevation is at MLLW or a few feet above MLLW). A significant amount of displacement in the structure's alignment and slopes is present. Bridging of stones is likely. Sliding of the armor units may be present as well as displacement of the armor units. The head(s) has receded by 20-40% of its original length. The root is still attached but flanking of the tail occurs for about 1/3 the length of the trailing end. The extent of these displacements renders the structure unstable. 4. Deterioration exposes significant amount of other critical materials composing the structure and there is evidence that under layer material and substructure components are being damaged or lost. 5. The foundation could exhibit failure modes over short distances (100 ft) to include scour and erosion around the toe and under the structure, lost substrate material, major subsidence, reduced thicknesses or diameters by approximately 15% for support members, and buckling or failure of piles.</p>
<p style="text-align: center;">Completely Degraded -- F</p>	<p><u>1. General failure with extensive deterioration indicates repair is needed for a major section of the structure.</u></p> <p>2. More than 50% of materials composing the structure show signs of extreme deterioration, and more than 40% of any material composing the structure has been lost. 3. The geometry of the structure clearly shows that much of the structure is lost or severely damaged. Significant lengths (>300 ft) of the structure have settled, collapsed, or eroded to an extent that the expected crest elevation has been reduced to at or below the MLLW level. The structure appears to be a pile rather than an engineered structure. The structure may flex or structural material may be mobile under hydrodynamic forces. An extreme amount of displacement in the structure's alignment and slopes is present. The extent of the displacement renders the structure critically unstable. 4. The deterioration exposes significant amounts of other critical materials composing the structure, and there is evidence that under layer material and substructure components are being damaged or lost over long (>300ft) sections of the structure. 5. There is evidence that the underwater portions of the structure are severely degraded over long sections (>300 ft) of the structure. The foundation could exhibit failure modes over long distances (>300 ft) to include scour and erosion around the toe and under the structure, lost substrate material, major subsidence, reduced thicknesses or diameters by approximately 25% for support members, and buckling or failure of piles.</p>

Level of Functionality	<p style="text-align: center;">TABLE F-10 CNS Functional Condition Rating (FCR) Table</p>
Full -- A	(1) Less than 10% of the time, design vessels cannot navigate or operate within authorized limits; (2) O&M dredging requirements in the Entrance and Bar Channel have not increased more than 10%, as compared to the long-term average annual rate.
Sufficient -- B	(1) 10-20% of the time, design vessels cannot navigate or operate within authorized limits; (2) O&M dredging requirements in the Entrance and Bar Channel have increased more than 10-20%, as compared to the long-term average annual rate.
Reduced -- C	(1) 20-40% of the time, design vessels cannot navigate or operate within authorized limits; (2) O&M dredging requirements in the Entrance and Bar Channel have increased more than 20-40%, as compared to the long-term average annual rate.
Severely Degraded -- D	(1) 40-60% of the time, design vessels cannot navigate or operate within authorized limits; (2) O&M dredging requirements in the Entrance and Bar Channel have increased more than 40-60%, as compared to the long-term average annual rate.
Completely Degraded -- F	(1) More than 60% of the time, design vessels cannot navigate or operate within authorized limits; (2) O&M dredging requirements in the Entrance and Bar Channel have increased more than 60%, as compared to the long-term average annual rate.

TABLE F-11
Coastal Navigation Structures 1-25 Matrix for District Condition Rating

Structural Condition Rating (SCR)

Functionality Condition Rating (FCR)		F	D	C	B	A
	F	F	F	F	F	F
	D	F	D	D	D	D
	C	D	D	C	C	C
	B	D	C	B	B	B
	A	C	B	B	A	A

This table applies heavier weighting to the FCR value than to the SCR value in combining the two ratings to determine a combined value or District Combined Rating (DCR)

Thus valuing the function of navigation over the structural integrity of the structure.

TABLE F-12 Coastal Navigation Structures Consequence/Economic Impact Category	
Consequence Category	Consequence Rating Criteria
I	<ol style="list-style-type: none"> 1. Demonstrated highest economic impact¹ 2. Imminent life safety impact 3. Critical to safe navigation by commercial vessels at High Use Navigation Project (>10 million tons) 4. Critical to safe navigation at DoD Strategic Ports
II	<ol style="list-style-type: none"> 1. Demonstrated High economic impact¹ 2. Probable life safety impact. 3. Probable impacts to subsistence harbors/critical harbors of refuge. 4. High economic loss (5 - 10 million Tons) 5. Alternate modes of transportation exist for Energy Distribution Facilities, but at a higher cost than waterborne transportation
III	<ol style="list-style-type: none"> 1. Demonstrated Moderate economic impact¹ 2. Possible life safety impact. 3. Possible impacts to subsistence harbors/critical harbors of refuge. 4. Moderate economic loss (1 – 5 million Tons)
IV	<ol style="list-style-type: none"> 1. Low economic impact¹. 2. Little impacts to subsistence harbors/critical harbors of refuge. 3. Low economic impact (<1 million Tons) 4. No life safety impact
V	<ol style="list-style-type: none"> 1. Negligible economic impact. No impacts to subsistence harbors/harbors of refuge. 2. Negligible economics (Recreation Harbors, No commercial Activity) 3. No life safety impact.
¹ Thresholds and basis for economic impact are under development. One measure of economic impact can be demonstrated using rate savings benefit, transportation cost savings, or damages avoided.	

g. Bridges. See Sub-Annex III-2 for guidance.

F-9. Asset Based Budget. In order to further development of the USACE asset management program, the PY Budget will link operation and maintenance costs to major assets using the constructed asset's Feature Codes. Two columns were added for the FY 11 Budget submission to the Business Line spreadsheets to link the work packages with constructed assets. Column 8, Primary Feature Code, should be populated with the Feature Code for the major constructed asset that the budget work package supports. Column 9, Additional Feature Codes, would list additional Feature Codes associated with other real property assets

that the work package will address. These will typically be associated with operations and "little m" maintenance.

F-10. Special Considerations or Special Rating Criteria.

a. Funding for minimum fleet dredges follows the dredge. If the requirements for the minimum fleet dredge do not materialize, the funds programmed for the dredge will be reprogrammed to other minimum fleet dredging requirements.

b. Rehabilitation Construction will be included as unique line items in the Construction account.

c. Rehabilitation studies will be included as unique line items, not hidden in a general Operation line item for the parent project, marked with the appropriate Phase and Activity codes.

d. Dredged Material Disposal Facilities (DMDFs) will be included as unique line items in Construction, with the appropriate Phase, Activity, and Category/Class/Subclass (CCS) codes. If the Program Name for the DMDF is not the same as the Program Name for the project(s) the DMDFs serve, the Program Name of the project(s) served by the DMDF shall be included in the Project Description column of the DMDF work package. The work package for the O&M project served by the DMDF shall include a statement in the Remarks column stating the need for the DMDF. These items migrated to O&M from Construction in the FY 07 cycle and migrated from O&M back to Construction for FY 11 and need to remain identifiable.

e. Sand Mitigation Projects will be included as unique line items in Construction, with appropriate Phase, Activity, and CCS codes. These items migrated to O&M from Construction in the FY 07 cycle and migrated from O&M back to Construction for FY 11 and need to remain identifiable.

f. Ecosystem Restoration projects in part or in whole previously budgeted in the Ecosystem Restoration Business Line for Construction were moved to O&M in FY 07. These projects migrated back to Construction for FY 11 and will be budgeted in the Ecosystem Restoration Construction Account for the PY.

g. If projects are linked to other projects and execution of a work package for one project requires funding of a work package for another project, either within the Navigation business line or within another business line, or if a project has associated work in multiple appropriations, a statement shall be included in the remarks column indicating the association with the corresponding work package in the other business line or appropriation. For instance, if a work package for dredging project A is requested in the Navigation business line relies on funding a work package for the dredged material placement area, beneficial use site, or tipping fee budgeted in a different appropriation or business line, both work packages would have comments in the Remarks column indicating that the two work packages are linked and both must be funded.

F-11. Ten Year Development Plans.

a. Each year the navigation asset condition assessments will be reviewed and updated to reflect work accomplished and changes to condition and therefore priority. For inland river systems a prioritized maintenance list will be developed. Based on funding assumptions such as if only Increments 1 and 2 are funded, Districts, MSC's and HQ will be able to establish O&M program glide paths. See Paragraph 12 of the Main part of this EC. Similar process will be developed for the coastal ports and harbors and will be better defined when channel condition assessment criteria are finalized for use in the PY+1 (FY 15) budget development process.

b. End State Performance target: For all navigation channels the goal is to attain and maintain channel availability at the justified level of service for the target years. For inland navigation the goal is to

halt the trend of increasing navigation lock outages and maintain lock availability at the FY 01-02 baseline level on a national basis.

c. Ongoing Construction funded efforts will be a consideration in overall funding, however a similar backlog of work in this program is anticipated beyond the FY 17 5-year horizon.

F-12. Definitions. The following definitions refer to the O&M criteria.

a. High-Use Projects – those deep and shallow draft coastal navigation projects with 10 million tons or greater, and those waterways with three billion ton-miles or greater, based on the latest five-year average waterborne commerce statistics.

b. Moderate-Use Projects – those deep and shallow draft coastal navigation projects with one to 10 million tons, and those waterways with one to three billion ton-miles, based on the latest five-year average waterborne commerce statistics.

c. Low-Use Projects – those deep and shallow draft coastal navigation projects with less than one million tons, and those waterways with less than one billion ton-miles, based on the latest five-year average waterborne commerce statistics.

d. Project Condition Surveys (PCS) – those hydrographic surveys needed to determine the program year conditions of projects in caretaker status or that are not funded separately in the PY. This work does not include testing, sampling or any other activity that should be included in a specific project funded budget package. The PCS items will be by state and will indicate the total number of projects that could be surveyed and the number of projects that will be performed as part of the line item. All PCS will not be included in a single line item.

e. Water/Environmental Certification – those activities needed to acquire certification in the PY to allow dredging to proceed that are not funded separately in the PY. This work does not include any activity that should be included in a specific project funded budget package. The Certification items will be by state and will indicate the total number of projects that could be certified and the number of certifications that will be performed as part of the line item. This will be handled like the PCS line items. All Certifications will not be included in a single line item.

f. Subsistence Harbors – those harbors that are dependent upon the navigation project as their principal means of receiving goods and services, and for which alternative means of delivery are not practicable. An example would be Tangier Island off the coast of Virginia or the Channel Islands off the California coast. This does not include point of origin harbors.

g. Critical Harbors of Refuge – those harbors that offer safe haven to boaters that represent the sole site for protection based on a public safety based regional distance criteria. Authorization or designation as a Harbor of Refuge does not automatically make a harbor critical.

h. Caretaker Activities – There are navigation systems and projects that will not be funded. Some minimal level of funding will be required to place these projects in a caretaker mode. We should address concern for the public's health and safety, environmental impacts resulting from full cessation of operations and how best to address them, review legal requirements placed on that project and ensure that litigation issues are addressed in a caretaker plan, review any unintended consequences on other waterways, and establish a communication plan to include messages, FAQ, roll out strategy, web site information, and draft media release. Caretaker status is an extremely low level of funding for minimal effort.

F-13. Low-Use Commercial Navigation Projects.

a. There are two performance indicators that flag work as Low-Use navigation features. These are: (1) Waterway project has less than one billion ton-miles of commercial cargo annually and (2) harbor projects have less than one million tons of commercial cargo annually. Activities meeting criterion (1) will be included as a low-use waterway segment, and activities meeting criterion (2) will be included as a low-use harbor channel. Use the additional performance criteria provided in TABLE F-13 for assisting in the evaluation of activities and projects.

b. Navigation System Funding Needs. See the discussion for O&M Systems in Annex III (O&M). Operation and Maintenance projects including Navigation projects will be combined in systems. For example, the South Oregon Coast Ports will be combined as appropriate in the Pacific Northwest System (PNW). The linkage of individual projects in a systems evaluation must be done in a rational way. This is not a gambit to get additional funds for projects that do not merit it.

TABLE F-13

Low-Use Channels and Waterways Screens and Indicators

	SCREEN	SCREEN	Indicators	Indicators	Indicators	Indicators	Indicators
	Minimum						
Low-Use Nav channels	<1 million tons	5-Year Avg cost per ton	Supports Public Transportation	Public Health and Safety	BCR, caretaker	Results of investment	Commercial fishery outputs
Low-Use Waterway segments	< 1 billion ton-miles	5-Year Avg cost per ton	Multipurpose Values	Public Health and Safety	BCR, Caretaker	Investment Issues	

Low-Use Harbor Channels Minimum:

- Supports public transportation (ferries, tour boats);
- Ensures boater safety (inlet dredging to reduce breaking wave hazards);
- Project costs yield outputs/benefits exceeding costs;
- Purpose should reflect results of investment (the "So what?").
- Supports some commercial fishery output;

Low-Use Waterway Segments Minimum:

- Compute BCR based on transportation savings (average tons per year table);
- Supports other business line purposes (Flood Risk Management, Hydropower, Recreation, Environmental, Water Supply, etc.);
- Port investment status (recent or planned port expansion/investments);
- Commercial tonnage trends upward;
- Ensures basic public health and safety;
- Caretaker costs for non-budgeted segments.

F-14. Joint Costs. See Sub-Annex III-2 for Joint Activities - Joint Costs. All Joint costs will be submitted in OFA under the Hydropower Business Line. The appropriate share of Joint Cost work packages will be distributed to the appropriate business lines once the budget submission is uploaded for HQUSACE review and prioritization.

F-15. Watershed Studies. Watershed studies are multi-objective/multipurpose and encompass a relatively large geographic area. As a minimum, the study area must encompass the region of an 8 digit HUC. Following the reconnaissance study, a study may proceed as a watershed assessment using 75-25 cost-

sharing (leading to a watershed management plan) in accordance with Sec.729 or as a feasibility study accomplished in a watershed context in accordance with the standard feasibility study process and 50-50 cost-sharing when implementation of a Corps project is anticipated.

The key attributes of a watershed assessment, leading to a watershed management plan are as follows:

- a. The study results in the identification of a combination of recommended actions (a Watershed Management Plan) to be undertaken by various partners and stakeholders in order to achieve local, tribal, regional, and national water resources management goals identified in the study and may or may not identify further budgetable Corps studies or implementation projects. The plans will be multi-objective and multi-purpose.
- b. Team thinking about water resources development and management in the context of multiple purposes rather than single purposes is required. This facilitates the search for comprehensive and integrated solutions to a variety of issues.
- c. The study provides a means for improving opportunities for public and private groups to identify and achieve common goals by unifying on-going and future efforts.
- d. Leveraging resources, including cost shared collaboration, and integrating programs and activities within and among Civil Works programs, and with other Federal, tribal state and non-governmental organizations, are critical factors.

F-16. Navigation Criteria Matrix – TABLE F-14. Below are the data elements and definitions for the embedded Navigation Criteria Matrix (Excel worksheet).

- a. Note that dollar amounts should be in thousands (\$000), EXCEPT the columns for BUDGET REQUEST - FED and BUDGET REQUEST - IWTF. Waterborne Commerce data should also be in thousands, but this data are already rounded to thousands in OMBIL and Waterborne Commerce data sources.
- b. Unique Entries. Fields marked with an * are expected to be different for each increment amount. It would be expected that additional funds would show improvement in appropriate performance indicators. Other items would be the same for the same CWIS numbers *and hopefully will populate automatically.*
- c. Criteria Matrix Data Elements and Definitions.

Col #. Column Title: Definition.

(1) thru (31) are common elements for all business lines and all accounts. The description and definitions of the common elements can be found in the Glossary at the end of this EC.

(32) CURRENT BUDGET – IWTF: IWTF amount.

(33) BUDGET REQUEST - IWTF*: The Inland Waterways Trust Fund amount requested for this increment; for C the sum of all Federal (Corps) and IWTF increments for this CWIS will be its capability. Each increment should provide measurable positive contributions to the applicable business line performance measures. Amount should be full dollar amount rounded to nearest thousand.

(34) PRIOR - CONDITION ASSESSMENT CLASS*: The condition assessment (A, B, C, D or F) of the budget item, based on risk assessment analysis, at the time of or just prior to PY budget year. Reference the Relative Risk Index Matrix and Condition Classification Guidelines in the business line budget EC Appendix, see applicable Tables in Para. F-9, output from OCA Workbook for inland and intracoastal navigation structures, or Sub-Annex III-2 for bridges.

(35) PRIOR – RELATIVE CONDITION CLASSIFICATION VALUE: for inland and intracoastal navigation structures this value will come from the OCA workbook and is a function of the above condition class and the related component importance factors developed by the national risk PDT.

(36) PRIOR – CONSEQUENCE CATEGORY*: The consequence assessment (I, II, III, IV or V) of the budget item, based on risk assessment analysis, at the time of or just prior to PY budget year. Reference the Relative Risk Index Matrix and the Consequence/Economic Impact Rating Criteria in the business line budget EC Appendix, see applicable Tables in Para. F-9, output from OCA Workbook for inland navigation, or Sub-Annex III-2 for bridges.

(37) PRIOR – RELATIVE ANNUAL ECONOMIC IMPACT VALUE (NATIONAL): for inland and intracoastal navigation structures this value will come from the OCA workbook and is a normalized function of the economic closure costs as related to the entire IMTS and the probability of failure for the respective components. This value represents only the annual benefits.

(38) PRIOR – RELATIVE ANNUAL ECONOMIC IMPACT VALUE (RIVER SYSTEM): for inland and intracoastal navigation structures this value will come from the OCA workbook and is a normalized function of the economic closure costs as related to the specific river system and the probability of failure for the respective components. This value represents only the annual benefits.

(39) PRIOR - RELATIVE RISK VALUE (1-25)*: The value (1-25) obtained from the Relative Risk Values table in the business line budget EC Appendix after applying the prior Condition Classification and Consequence/Economic Impact assessment values. This value will be generated automatically in OFA. See Paragraph F-9, output from OCA Workbook for inland and intracoastal navigation structures, or Sub-Annex III-2 for bridges.

(40) PRIOR – RELATIVE RISK MATRIX INDEX (1-5)*: The value (1-5) obtained from the Relative Risk Matrix in the business line budget EC Appendix after applying the prior Condition Classification and Consequence/Economic Impact assessment values. This value will be generated automatically in OFA. See Paragraph F-9, output from OCA Workbook for inland and intracoastal navigation structures, or Sub-Annex III-2 for bridges.

(41) WITH PY REQUEST – CONDITION ASSESSMENT CLASS*: The condition assessment (A, B, C, D or F) that is anticipated or estimated for the budget item assuming the PY budget work package is funded. Reference the Condition Classification Guidelines in the business line budget EC Appendix, see applicable Tables in Paragraph F-9, output from OCA Workbook for inland and intracoastal navigation structures, or Sub-Annex III-2 for bridges.

(42) WITH PY REQUEST - RELATIVE CONDITION CLASSIFICATION VALUE: for inland and intracoastal navigation structures this value will come from the OCA workbook and is a function of the above condition class and the related component importance factors developed by the national risk PDT.

(43) WITH PY REQUEST – CONSEQUENCE CATEGORY*: The consequence assessment (I, II, III, IV or V) that is anticipated or estimated for the budget item assuming the PY budget work package is funded. Reference the Consequence/Economic Impact Rating Criteria in the business line budget EC Appendix, see applicable Tables in Paragraph F-9, output from OCA Workbook for inland and intracoastal navigation structures, or Sub-Annex III-2 for bridges.

(44) WITH PY REQUEST – RELATIVE ANNUAL ECONOMIC IMPACT VALUE (NATIONAL): for inland and intracoastal navigation structures this value will come from the OCA workbook and is a normalized function of the economic closure costs as related to the entire IMTS and the probability of failure for the respective components that is anticipated or estimated for the budget item assuming the PY budget work package is funded. This value represents only the annual benefits.

(45) WITH PY REQUEST – RELATIVE ANNUAL ECONOMIC IMPACT VALUE (RIVER SYSTEM): for inland and intracoastal navigation structures this value will come from the OCA workbook and is a normalized function of the economic closure costs as related to the specific river system and the probability of failure for the respective components that is anticipated or estimated for the budget item assuming the PY budget work package is funded. This value represents only the annual benefits.

(46) WITH PY REQUEST – RELATIVE RISK VALUE (1-25)*: The value (1-25) obtained from the Relative Risk Values table in the business line budget EC Appendix after assuming the PY budget work package is funded and the anticipated or estimated Condition Classification and Consequence/Economic Impact assessment values are applied. This value will be generated automatically in OFA. See Paragraph F-9, output from OCA Workbook for inland and intracoastal navigation structures, or Sub-Annex III-2 for bridges.

(47) WITH PY REQUEST – RELATIVE RISK MATRIX INDEX (1-5)*: The value (1-5) obtained from the Relative Risk Matrix in the business line budget EC Appendix after assuming the PY budget request is funded and the anticipated or estimated Condition Classification and Consequence/Economic Impact assessment values are applied. This value will be generated automatically in OFA. See Paragraph F-9, output from OCA Workbook for inland and intracoastal navigation structures, or Sub-Annex III-2 for bridges.

(48) AMOUNT NEXT CONTRACT*: Required for all items in Construction. Provide the total amount of the next new contract. Enter the total value of the contract in thousands

(49) CONTINUING CONTRACT EARNING*: Required for all continuing contracts, including both “true” and “special” continuing contracts. Provide the PY earnings for all continuing contracts continuing from the previous year. This number will change as additional items are included in the budget request for an individual continuing contract. Enter NA if this line item is not a Continuing Contract.

(50) CONTINUING CONTRACT VALUE: Required for all continuing contracts including both “true” and “special” continuing contracts. Enter the total value of the contract in thousands. Enter NA if this line item is not a Continuing Contract.

(51) CONTINUING CONTRACT AMOUNT APPLIED THROUGH PY-1: Required for all continuing contracts including both “true” and “special” continuing contracts. Enter the amount in thousands. This should be zero for a continuing contract initiating in the PY (FY 14). Enter NA if this line item is not a Continuing Contract.

(52) LAST YEAR BUDGETED: Enter the last fiscal year this study or project had funds included in the President’s Budget. Funds must have been in the final President’s Budget, not just the District’s request.

(53) LAST AMOUNT BUDGETED: Enter the amount included for this study or project in the President’s Budget indicated in “LAST YEAR BUDGETED” entry.

(54) LAST YEAR APPROPRIATED: Enter the last fiscal year this study or project was appropriated funds (conference report).

(55) LAST AMOUNT APPROPRIATED: Enter the appropriated amount (conference report amount) for this study or project contained in the appropriation indicated in “LAST YEAR FUNDS APPROPRIATED” entry.

(56) TOT STUDY COST: The Total Study Cost (TSC) includes the Federal and non-Federal costs of the particular Investigation phase: the total cost of each phase while in that phase for the Reconnaissance, Feasibility and PED Phases. This is also required for study activities included in Operation and Maintenance, such as Major Rehabilitation reports, DMMPs, Section 216 studies, etc.

(57) BALANCE TO COMPLETE STUDY*: The PY+1 Federal share fully funded balance to complete (BTC) the study (if in reconnaissance or feasibility) or PED. This number should vary with each work package in the budget for each specific study (the balance to complete will decrease with each successive work package). This is also required for study activities included in Operation and Maintenance, such as Major Rehabilitation reports, DMMPs, Section 216 studies, etc.

(58) TOT PROJ COST: The Total Project Cost (TPC) includes the Federal and non-Federal costs of PED and Construction. During the Reconnaissance and Feasibility Phases use the estimate being developed for use in the appropriate report (needed for order of magnitude evaluations). Subsequently, the figure is to include all Federal and non-Federal costs for PED and Construction. The cost should be consistent with the Total Project Cost.

(59) BALANCE TO COMPLETE*: The PY+1 Federal share fully funded balance to complete (BTC) the study (if in reconnaissance or feasibility), construction project or separable element, Major Maintenance or Major Rehabilitation, dredged material disposal facility, sand mitigation, or beneficial use project. BTC should be consistent with the Total Project Cost. This number should vary with each work package in the budget for each specific project (the balance to complete will decrease with each successive work package).

(60) LAST YEAR CONSTRUCTION FUNDS WILL BE REQUESTED*: Last year funds (other than O&M) will be required. This includes authorized monitoring/adaptive management funded in the construction account.

(61) FCSA Date: The actual or scheduled date of the FCSA. If increment request is to accelerate phase, this date should change from initial one.

(62) PED Date: The actual or scheduled date of the PED Agreement. If increment request is to accelerate phase, this date should change from initial one.

(63) PCA/PPA Date: The actual or scheduled date of the PCA/PPA. If increment request is to accelerate phase, this date should change from initial one.

(64) HW TYPE: Navigation Activity, Harbor or Waterway Type. HSD=High Use Shallow Draft Harbor; MSD=Moderate Use Shallow Draft Harbor; LSD=Low Use Shallow Draft Harbor; HDD=High Use Deep Draft Harbor; MDD=Moderate Use Deep Draft Harbor; LDD=Low Use Deep Draft Harbor; HWW=High Use Waterway; MWW=Moderate Use Waterway, LWW=Low Use Waterway; PCS=Project Condition Surveys; RAG=Removal of Aquatic Growth; RSM=Regional Sediment Management.

(65) HMTF (Y/N): For all navigation projects, indicate if navigation costs for this project are eligible for reimbursement from the HMTF, Yes or No. Data will be entered automatically from OMBIL

(66) HW TYPE USE CODE – CARETAKER (Y/N): Use Code for Navigation Activity, Harbor or Waterway Type. Required for all projects/items that are High, Moderate or Low Use. Indicate Yes or No for Caretaker. A brief explanation should be provided in the Remarks Column.

(67) HW TYPE USE CODE – SUBSISTENCE HBR (Y/N): Use Code for Navigation Activity, Harbor or Waterway Type. Required for all projects/items that are High, Moderate or Low Use. Indicate Yes or No for Subsistence Harbor. A brief explanation should be provided in the Remarks Column.

(68) HW TYPE USE CODE – CRITICAL HBR OF REFUGE: Use Code for Navigation Activity, Harbor or Waterway Type. Required for all projects/items that are High, Moderate or Low Use. Indicate Yes or No for Critical Harbor of Refuge. A brief explanation should be provided in the Remarks Column.

(69) HW TYPE USE CODE – US COAST GUARD STATION (Y/N): Use Code for Navigation Activity, Harbor or Waterway Type. Required for all projects/items that are High, Moderate or Low Use. Indicate Yes or No for whether a US Coast Guard Station is located on the channel reach. A brief explanation should be provided in the Remarks Column.

(70) HW TYPE USE CODE – NATIONAL SECURITY (Y/N): Use Code for Navigation Activity, Harbor or Waterway Type. Required for all projects/items that are High, Moderate or Low Use. Indicate Yes or No for National Security. A brief explanation should be provided in the Remarks Column.

(71) HW TYPE USE CODE – PUBLIC TRANSPOR (Y/N): Use Code for Navigation Activity, Harbor or Waterway Type. Required for all projects/items that are High, Moderate or Low Use. Indicate Yes or No for Ferry (Public) Transportation. A brief explanation should be provided in the Remarks Column.

(72) DSAC CLASSIFICATION: Each dam safety project, assurance study or group of similar studies for the same project should be identified with the appropriate phase code and the Dam Safety Action Classification code (DSAC = I, II, III, IV, V)

(73) DAM SAFETY IMPACTS: For dam safety/seepage project - what other purposes (by Business Line) would be impacted if there was a failure. Maximum of 160 characters.

(74) LEGAL MANDATE: Special legal mandates – Y or N and then describe in remarks.

(75) SAFETY ISSUES: Life Safety issues – Y or N and then describe in remarks.

(76) LATEST COM TON: The commercial tons for the latest available year from OMBIL (Waterborne Commerce data). Data will be entered automatically from OMBIL.

(77) 5-YR AVG COM TON: The last five-year average annual commercial tons from OMBIL (Waterborne Commerce data). Data will be entered automatically from OMBIL.

(78) LATEST SYS TON MILES: The system or trip ton-miles for the latest available year from OMBIL (Waterborne Commerce data). Data will be entered automatically from OMBIL.

(79) 5-YR AVG SYS TON MILES: The last five-year average annual system or trip ton-miles from OMBIL (Waterborne Commerce data). Data will be entered automatically from OMBIL.

(80) LATEST TON MILES: The ton-miles for the latest available year from OMBIL (Waterborne Commerce data). Data will be entered automatically from OMBIL.

(81) 5-YR AVG TON MILES: The last five-year average annual ton-miles from OMBIL (Waterborne Commerce data). Data will be entered automatically from OMBIL.

(82) 5-YR AVG O&M \$/TON: Five-year average total O&M costs divided by five-year average annual commercial tons for the same period from OMBIL for Waterborne Commerce and O&M financial data. Data will be entered automatically from OMBIL.

(83) TOTAL VALUE OF FOREIGN CARGO: Total dollar value of the foreign cargo for the project at current price levels. Available from Waterborne Commerce data. Data will be entered automatically from OMBIL.

(84) VALUE OF EXPORT CARGO: Dollar value of the export cargo for the project at current price levels. Available from Waterborne Commerce data. Data will be entered automatically from OMBIL.

(85) % TIME AVAIL*: Percentage of time project is available to perform as designed with limits from deferred maintenance, dam safety issues, etc. It would be expected that additional increment requests would show improvement in appropriate performance indicators. Explain in Remarks.

(86) BCR AT 7% RATE: The project's benefit cost ratio at 7% and current price levels.

(87) RBRCR AT 7% RATE: The project's remaining benefits - remaining costs ratio at 7% and current price levels. See Annex B for discussion.

(88) BCR – Applicable: The project's benefit cost ratio at the applicable interest rate.

(89) RBRCR – Applicable: The project's remaining benefits - remaining costs ratio at applicable rate.

(90) APPLICABLE RATE: The applicable interest rate - See the MAIN EC paragraph 14.

(91) BCR – Current: The project's benefit cost ratio at the current interest rate. See main EC paragraph 11.

(92) RBRCR – Current: The project's remaining benefits - remaining costs ratio at current rate. See the MAIN part of this EC, paragraph 14.

(93) Level of Economic Update: Select from: Level 1 – Reaffirmation; Level 2 – Benefit Update; Level 3 – ERR; Level 4 – GRR; Level 4 – LRR; or N/A - Not applicable.

(94) Economic Report Update Date of Approval by MSC (yyyy/mm/dd): enter date of approval by MSC.

(95) PROJECT DESCRIPTION: Main features/Navigation segment, 50 words or less. Complete sentences are not required. Maximum of 250 characters.

(96) BUDGET ITEM JUSTIFICATION*: State proposed use of the increment amount (be as specific as possible) and what the increment amount accomplishes (what are we getting for this amount of \$). Key points to be able to distinguish from other increment or other projects. For dam safety items (inspections and studies), the "Purpose" field should include what is being studied, the expected report completion date, if not completing in the PY, the additional \$ needed to complete, and estimated cost (magnitude) of the construction cost. It would be expected that additional increment requests would show improvement in appropriate performance indicators. Maximum of 160 characters.

(97) CONSEQUENCES*: What is penalty (consequence) if not funded this PY - increment amount needed to comply with safety, settlements, loss of service, structural failure, etc. It would be expected that additional increment requests would show improvement in appropriate performance indicators. Maximum of 160 characters.

(98) REMARKS*: Additional critical information to support increment amount that is not in the other fields and what is called for from other fields. Use to explain District & Division ranks, lack of data in required fields, special legal or other requirements, safety issues, HW Type use explanation, etc. Provide rationale to support funding of O&M Major Maintenance Items. Document infrastructure at significant risk to justify budget requests. It would be expected that additional increment requests would show improvement in appropriate performance indicators. For studies or projects with an N/A in any field, such as BCR and RBRCR, explain why they are not required. Maximum of 600 characters.

(99) REMARKS (CONTD)*: Additional critical information to support increment amount that does not fit in REMARKS column.

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(100) OTHER PURPOSES: The other outputs provided by the project. N=Navigation; F=Flood Risk Management; H=Hydropower; E=Environmental; R=Recreation; W=Water Supply.

(101) FUNDING OF OTHER PURPOSES: Displays the budget request amounts entered for other business lines for the project. System generated, no entry required.

(102) EXTERNAL PEER REVIEW: Enter the amount in thousands included in the Budget Request – Fed that is required to fund the Federal cost of external peer review in accordance to WRDA 2007, Section 2034.

(103) WATERSHED: Is this a watershed study or project? Y or N based on criteria in this EC.

(104) WATERSHED DOCUMENTATION: If Watershed Study column is “Y”, then provide a narrative documentation of why the study is a Watershed Study (400 characters). The Phase Activity Code should be “WA”.

(105) CUMULATIVE BUDGET REQUEST FEDERAL PER PROJECT: System generated, no entry required.

(106) CPT 5-YR-AVG. ANNUAL TONNAGE AT RISK FOR DEEPEST 5 FEET: Data will be entered automatically from the Channel Portfolio Tool (CPT). The CPT tabulates the average annual tonnage over the previous 5 years utilizing the 5 deepest feet of channel depth for each channel within a project.

(107) CPT 5-YR-AVG. CARGO VALUE AT RISK FOR DEEPEST 5 FEET: Data will be entered automatically from CPT. The CPT tabulates the average annual cargo value over the previous 5 years utilizing the 5 deepest feet of channel depth for each channel within a project.

(108) CPT EXPORT TONNAGE AT RISK FOR DEEPEST 5 FEET: Data will be entered automatically from CPT. The CPT tabulates the average annual export tonnage over the previous 5 years utilizing the 5 deepest feet of channel depth for each channel within a project.

(109) CPT EXPORT CARGO VALUE AT RISK FOR DEEPEST 5 FEET: Data will be entered automatically from CPT. The CPT tabulates the average annual cargo value of exports over the previous 5 years utilizing the 5 deepest feet of channel depth for each channel within a project.

(110) CPT TOTAL ECONOMIC VALUE (TOTAL CARGO VALUE AT RISK/CUMULATIVE WORK PACKAGE AMOUNT): Data will be entered automatically from CPT. For each project, submitted work packages are sorted according to the provided MSC Rank, and a running cumulative budget request amount is tallied as one moves down this sorted list. For each submitted work package, field 105 is then divided by the running cumulative budget request amount.

(111) CPT EXPORT ECONOMIC VALUE (EXPORT CARGO VALUE AT RISK/CUMULATIVE WORK PACKAGE AMOUNT): Data will be entered automatically from CPT. For each project, submitted work packages are sorted according to the provided MSC Rank, and a running cumulative budget request amount is tallied as one moves down this sorted list. For each submitted work package, field 107 is then divided by the running cumulative budget request amount.

TABLE F-14

Navigation Budget Ranking Criteria - Submission Matrix



TABLE F-14 Ranking
Criteria

APPENDIX G

Recreation

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APPENDIX G

Recreation

G-1. Background. The Corps is the nation's leading Federal provider of outdoor recreation opportunities. As the host about 370 million visitors a year, the Corps plays a major role in meeting the outdoor recreation needs of Americans. Corps recreation projects contribute economically and socially to the communities in which they are located, providing a natural resource setting for visitors to reap the benefits to their physical, mental and spiritual health from engaging in outdoor activities.

G-2. Recreation Mission and Goal. The Corps Natural Resources Management (NRM) mission statement is:

“The Army Corps of Engineers is the steward of the lands and waters at Corps water resources projects. Its Natural Resources Management Mission is to manage and conserve those natural resources, consistent with ecosystem management principles, while providing quality outdoor public recreation experiences, to serve the needs of present and future generations. In all aspects of natural and cultural resources management, the Corps promotes awareness of environmental values and adheres to sound environmental stewardship, protection, and compliance and restoration practices. The Corps manages for long-term public access to, and use of, the natural resources in cooperation with other Federal, State, and local agencies as well as the private sector. The Corps integrates the management of diverse natural resources components such as fish, wildlife, forests, wetlands, grasslands, soil, air, and water with the provision of public recreation opportunities. The Corps conserves natural resources and provides public recreation opportunities that contribute to the quality of American life”.

a. The NRM mission statement recognizes the strong interrelationship between the health of the natural resources and the quality of the recreation experience provided. The portions of the above mission statement that are directly related to recreation are underlined. The recreation program goal is to enhance the quality of American life by providing benefits to individuals, communities, regional economies, the national economy, and the environment.

b. TABLE G-1 below displays the Recreation Program Objectives and Performance Measures published in the FY 2011-2015 Civil Works Strategic Plan. Preparation of the PY Budget Request requires the recognition of a constrained budget environment and the ongoing effort to improve the linkage of budget to performance. The performance measures which support and/or supplement TABLE G-1 program objectives and performance measures to reflect the near term realities of a constrained PY budget environment are described in paragraph G-15 below.

TABLE G-1	
Strategic Plan Objectives and Performance Measures	
<u>Program Objectives</u>	<u>Performance Measures</u>
Provide justified outdoor recreation opportunities in an effective and efficient manner at Corps operated water resources projects.	National Economic Development Benefit (NED) Benefits/Costs Ratio (B/C) Cost Recovery
Provide continued outdoor recreation opportunities to meet the needs of present and future generations.	Park Capacity (RUDA) Customer Satisfaction (only used to identify facility/service improvement needs)
Provide a safe and healthful outdoor recreation environment for Corps customers	Visitor Health and Safety Services Facility Condition Index (FCI); Facility Service

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G-3. Recreation Budget Goals and Objectives. Although the Corps recreation program is well established, stable and well regarded, the ability to continue to provide high quality recreation experiences to meet the needs of current and future generations is jeopardized by constrained funding. Years of sub-optimal funding have precluded preventative maintenance, facility modernization or improvement, including improvements to increase operational efficiencies, resulting in an aging and outdated recreation infrastructure.

a. Accordingly, a concentrated nationwide emphasis must be placed on assuring that available funding provides the optimum nationwide recreation program for the nationwide investment. To achieve this goal, the following recreation budget objectives are established for the PY program.

(1) Initial investments must provide equivalent public opportunity, at consistent service levels, across the Corps national recreation program.

(2) Initial and incremental investments must reflect the results of operational efficiencies analyses and implementation.

(3) Existing recreation infrastructure critical to meeting current and future needs must be maintained and protected.

(4) Recreation opportunities must provide a safe, healthful and accessible experience.

(5) All recreation opportunities must be provided consistent with environmentally sustainable development and environmentally friendly business practices for the benefit of future generations.

b. In order to achieve the above objectives, two tasks must be accomplished:

(1) Conscientiously and objectively determine equivalent initial funding levels, to assure all projects across the country are starting annual budgets from the same point.

(2) Establish a system of performance measures that will permit objective evaluation of various investment choices to assure incremental investments above initial provide the greatest benefit for the investment, while maintaining consistent public service levels. The FY06 through FY13 budgets provided a great deal of information about the performance of alternative investment choices. In the PY budget, continue to improve investment choices, using refined performance measures to improve data accuracy.

c. Once an appropriate and equivalent initial funding level has been established and a system of effective performance measures is implemented, informed and wise decisions can be made to meet the goal of providing the greatest public benefit for the nationwide budgetary investment.

G-4. PY Recreation Budget Focus Areas. The following focus areas should be considered when developing incremental recreation budget packages for PY.

a. Critical Maintenance (non-routine). Critical non-routine maintenance defined as non-recurring maintenance that if not performed in the budget year will result in the loss of a necessary component of the recreation infrastructure should be included in the improvement increment. Work packages to fund critical non-routine maintenance should be identified with an indicator in Rec-Best so the total program requirement can be quantified. Critical non-routine maintenance items may be new items in the PY. It is not required that they were identified in the previous year's budget to qualify as critical. Identifying a work package as critical non-routine maintenance indicates this is a higher priority work than routine O&M for the recreation program. Critical routine maintenance defined as recurring maintenance necessary to

keep a necessary component of the recreation infrastructure properly maintained should be included in the initial, sustaining or remaining increment as appropriate (see paragraph G-10 below).

b. **Accessibility Improvements for Persons With Disabilities.** The Corps has a legal obligation to provide accessibility to public recreation sites, facilities and programs in accordance with statutory requirements and codified guidelines. Non-compliance with these requirements and guidelines constitutes a civil rights violation. Accordingly, improvements required to meet these requirements and guidelines are a priority for funding. Funds allocated in the President's budget for this purpose and subsequently appropriated must be expended for this purpose. Improvements required to meet statutory requirements and codified guidelines, and for which budget packages should be developed, include:

(1) Improvements to facilities constructed or altered after 1984, when the Uniform Federal Accessibility Standards (UFAS) were published, which do not meet UFAS guidelines. UFAS guidelines may be found at <http://www.access-board.gov/ufas/ufas-html/ufas.htm>. Accessibility improvements made to such facilities (i.e. those constructed or altered after 1984 which do not meet UFAS guidelines) must comply with current DOD standards, which may be found at <http://www.access-board.gov/ada-aba/aba-standards-dod.cfm>. It is recommended that trails, camping and picnic facilities, beach access routes, and viewing areas use the 2009 draft final guidelines for outdoor developed areas <http://www.access-board.gov/outdoor/draft-final.htm#text>.

(2) Improvements required to make recreation programs, i.e. camping, picnicking, boating, swimming, etc., accessible. For the purposes of budgeting Corps recreation program requirements, a program is defined on a project basis. Therefore, if a camping program is available at recreation areas operated by the Corps on a water resources development project, at least one camping opportunity (campsite, plus associated facilities, plus the route between associated facilities) on the project must be accessible. Improvements required to meet program accessibility requirements must comply with current guidelines.

c. **Efficiency Improvements.** Investments in efficiency improvements to support and maintain current performance levels at justifiable Initial cost optimize the nationwide recreation program for the nationwide investment. Work packages should be developed to fund efficiency improvements that will result in decreased future O&M costs.

d. **Recreation Area Modernization.** The modernization of recreation sites and facilities involves updating existing facilities to meet current guidelines and user needs, as well as modifying facilities and services to improve efficiency and effectiveness. Ongoing identification of modernization needs and budgeting to accomplish the most critical of these needs is important to the Corps overall, long-term management of its recreation program. Modernization activities will be funded through O&M work packages above initial. A new Work Category Code (WCC), 61515, was developed in FY07 to facilitate submittal and evaluation of modernization work. All costs for the modernization, replacement or additions for modernization to recreation facilities and structures such as trails, campgrounds, picnic areas, restrooms, showers, boat ramps, parking areas, roads, grounds, utilities associated with recreation use, buildings used for recreation purposes should be included in WCC 61515. Work using this WCC must meet current standards as identified in EM 1110-1-400 and should be bundled in logical packages that assure the biggest return on investment can be realized in the shortest amount of time. Only those packages that make "good business sense" should be included. Packages using this WCC cannot be included in the Initial funding level.

e. **Joint Activities – Joint Costs.** See guidance provided in Sub-Annex III-2.

f. Sustainability. Sustainability improvements may include a variety of requirements ranging from investments in facility energy and water efficiency to enhanced solid waste recycling. USACE Sustainability priorities will vary over time, but the FY14 priority is facility energy and water efficiency.

(1) Sustainability requirements for facility energy and water efficiency are driven by specific statutory requirements: the Energy Independence and Security Act (EISA) of 2007, and the Energy Policy Act (EPAAct) of 2005. Energy and water efficiency budget packages *must* be identified by a Sustainability Code, and they must include the applicable data requirements specified in the MAIN part of this EC.

(2) It is particularly important to specify in each Sustainability budget package whether the facility targeted for improvement is being reported as "Goal Subject" or "Goal Excluded" for purposes of USACE reporting under the Federal Energy Management Program (FEMP).

(3) USACE Goal Subject facilities are those facilities (essentially "buildings" with 4 walls and a roof) that are owned and operated by the Corp and in which the energy and water consumption is primarily for heating, lighting and cooling, and it is controlled by the Corps (or on-site USACE contractors such as O&M contractors for which USACE is paying the energy and water bills), as opposed to visitors.

(4) Goal Excluded facilities include mission-related facilities and structures such as locks, dams, and industrial facilities in which the energy consumption results from mission operations and other activities such as security lighting. Depending on facility conditions (e.g., well maintained and modern, vs. poorly maintained and out-dated), the best opportunities for facility energy and water efficiency investments often occur in larger buildings with high occupancy rates and long operating hours.

(5) The Recreation Business line is goal excluded. It is the project OPM's discretion to submit sustainability packages that are highly relevant to our program goal, and the FY14's budget emphasis on Visitor Center and office buildings.

G-5. Recreation Maintenance. See Annex III for Operation and Maintenance Unfunded Reporting Requirements. It is important to identify and budget for all justified unfunded maintenance requirements for recreation within capability for the budget year. (Capability is defined in Glossary at the end of this EC). Work packages should be developed within the Improvement Increment to address all requirements for unfunded maintenance. Unfunded maintenance is defined as those unfunded maintenance work items that are required and should have been funded in the previous year (PY-1) to provide reasonable assurance that project performance goals can continue to be met and that undue risk of failure is avoided. If these maintenance requirements are not identified, there is an incomplete understanding of the total budgetary requirements, regardless of what is or is not funded. Recreation maintenance may be identified further as critical in accordance with paragraph G- 4 above. An indicator code for critical maintenance activities is provided in Rec-BEST.

G-6. Increased Recreation Fee Collection. Efforts continue to obtain legislative authority for the Corps to retain all or a portion of the recreation use fees collected, with the primary objective of funding maintenance and improvement of recreation sites and facilities. Accordingly, in conjunction with the PY budget development, efforts should be made to identify opportunities to enhance fee collection as appropriate and in accordance with existing policy and guidance. Implementation guidance will be developed for any additional authorities obtained. Success in increasing recreation use fee collection will impact directly the success in meeting goals related to the Cost Recovery performance measure discussed in paragraph G-14 below.

G-7. Visitor Centers. Visitor Center costs should be included in Visitor Center Operations, WCC 60514, and Visitor Center Maintenance, WCC 61514. This includes costs for officially designated visitor centers.

For maintaining and operating information centers that are not designated as visitor centers this year, the necessary costs should be included in the Initial Increment using WCC's 60511 and/or 61511. This should not result in an increase in total budget. The sum of 60511 and 60514 should not be more than the previous total for 60511. The sum of 61511 and 61514 should not exceed that previously budgeted for 61511. The WCC's simply allow us to distinguish between costs for visitor centers and costs for other recreation sites and facilities. The descriptions for the Visitor Center WCC's are:

a. WCC 60514: Includes all costs associated with the operation of visitor centers, including personnel costs; custodial services; snow, ice and debris removal; lawn and shrubbery maintenance; landscaping; grounds; tour operator services; utilities and supplies; exhibits (interior and exterior); supporting costs of cooperating associations, heating and cooling systems, audio visual programs, building material and equipment costs.

b. WCC 61514: Includes all costs for the maintenance and repair, replacement, additions and efficiency improvements to, or retirement of, visitor center buildings, displays, audiovisual systems, heating and cooling systems, landscaping, grounds, exhibits and utilities.

G-8. Customer Comment Card Program. The customer comment card program is administered by Corps project staff to obtain feedback systematically from visitors on the quality of facilities and services being offered at Corps managed recreation areas. Written comments offered by visitors can be especially helpful for identifying and prioritizing facility and service improvements needed at recreation areas. Accordingly, visitor comments obtained through the comment card program should be considered when developing recreation program budget packages. Visitor comments that demonstrate the need for a particular budget package should be referenced in the budget package description.

G-9. Definitions of Funding Increments. Four funding increments have been developed for the recreation business line as follows:

a. Increment 1: The "Initial" increment of funding has been developed for the most critical, time-sensitive, least-cost activities subject to the MSC minimal program.

b. Increment 2: There is no Increment 2 in the Recreation Business Line.

c. Increment 3: "Sustaining Increment," consists of packages above the Initial to support continuing the current level of service.

d. Increment 4: "Remaining Increment," includes remaining costs to serve existing visitors at the acceptable service levels not accommodated in Initial and Sustaining increments because of budget limits.

e. Increment 5: "Improvement Increment," includes most critical non-routine maintenance activities and all facility improvements and enhancements, modernization, and new facility construction.

f. Crosswalk: In order to achieve consistency with the overall O&M program structure and to meet the requirement for entering budget information into P-2, the Rec-BEST budget increment should be matched in P-2 according to TABLE G-2. That is, the Initial increment will be entered in P-2 as Increment 1; the Sustaining increment will be entered into P-2 as Increment 3; the Remaining increment will be entered into P-2 as increment 4; and all the improvement packages will be entered in P-2 as increment 5 (including critical non-routine maintenance packages, which will be identified in Rec-BEST but entered in P-2 as increment 5 as well). There is no change on the BEST_ID's. The BEST_ID numbers should still be entered into P-2 as the way they are in Rec-BEST.

TABLE G-2	
Budget Increments Reference Table between Rec-BEST and P2	
Rec-BEST Increment	P2 Increment
Initial Increment: Critical, time-sensitive, least-cost activities subject to the overall MSC initial program dollar.	Increment 1: Critical routine <i>and critical non-routine</i> activities.
Not Applicable in Rec-BEST	Do not Use Increment 2.
Sustaining Increment: Additional costs above the initial to support continuing the current level of service. subject to the overall MSC Sustaining program dollar.	Increment 3: Support continuing the current level of service.
Remaining Increment: Additional costs to serve 100% existing visitors at the acceptable service levels not accommodated in Initial and Sustaining Increments.	Increment 4: Support continuing the acceptable level of service.
Improvement Increment: For all other packages - critical non-routine maintenance activities and all facility improvements and enhancements, modernization, and new facility construction.	Increment 5: Activities enable greater levels of performance in future years.

G-10. Initial, Sustaining and Remaining Increment Definitions. Pursuant to the Recreation Budget Goals and Objectives established in paragraph G-3 above, the following definition of Initial and sustaining increments for the Corps recreation program is established. The **combination** of Initial, Sustaining, and Remaining increments for recreation will not be based upon any previous year's budget, but solely based on the need to provide acceptable service levels to existing visitors. MSC Recreation Business Line Managers should work with other Business Line Managers to build the MSC overall budget. The MSC budget should reflect the high priority Recreation packages based on performance. Budget increments above Initial must be justified by the incremental benefits to be delivered, as described by the performance measures.

a. Initial Increment. Operations & Maintenance and Mississippi River and Tributaries Maintenance. The Initial funding level for each project is the minimum funding for the most critical, time-sensitive, least-cost activities subject to the MSC minimal program dollar. The parks or facilities that represent the most efficient program in serving a portion of existing visitors should be included in Initial. The less efficiently operating parks that serve the remaining visitors at acceptable levels should be included in Sustaining and Remaining Increments.

b. Sustaining and Remaining Increments. Sustaining and Remaining Increments will include the minimum funding needed to provide acceptable service to the remaining of the existing visitors not accommodated in Initial. These Increments serve only the remaining visitors. The Sustaining increment must meet the requirements of paragraph G-9., while the Remaining increment should include additional costs needed to provide acceptable service levels to existing visitors not accommodated under the Initial and Sustaining increments because of budget constraints. They do not include any facility improvements or non-routine maintenance, other than those maintenance costs critical to provide acceptable service IN THE BUDGET YEAR, as defined in paragraph G-11.

NOTE: This definition will be used for budget development purposes only, to establish an equivalent platform among projects on which to build a performance based budget. This budget

development guidance will not be used to determine the appropriate execution of the recreation program following appropriation of funds. Guidance to assist decision making regarding major changes in recreation program operation, to include park closures, is available elsewhere as operational guidance, not budget development guidance.

c. The definition of "acceptable service" is provided in paragraph G-12. Care should be taken to use the service level criteria properly to assure accurate computations. "Existing recreation visitation" means visitation occurring at currently open recreation areas managed by the Corps.

d. Funding for all activities encompassed by Work Category Codes 60511, 60513, 60514, 60520, 60541, 60542, 60550, 60560, 60591, 60592, 61511 and 61514 that serve existing recreation visitation in designated recreation areas (excluding access points, overlooks, and Class E campgrounds) at acceptable service levels in the most efficient program will be included in Initial and Sustaining increments. Annual recurring costs for non-recurring work items, such as minor roof repairs, painting of comfort stations, road patching, sign replacements, exhibit repairs, etc., should be budgeted in 61511 and 61514 (for visitor centers only) in Initial and in Sustaining Increment. Maintenance requirements which are scheduled, such as roof replacement, road re-paving, renovation of comfort stations, fabrication or installation of visitor center replacement exhibits, etc. should be budgeted in 61511 and 61514 (for visitor centers only) in Improvement Increment. Only those maintenance costs essential to provide acceptable service IN THE BUDGET YEAR should be included in the Initial Increment or Sustaining Increment.

e. The minimum funding to assure the health and safety of visitors to areas outside designated recreation areas, including access points, overlooks, Class E campgrounds and dispersed areas will be included in Initial. This includes maintenance of buoys and lake-wide navigation aids necessary to assure the health and safety of visitors.

f. For WCC 60550, Real Estate Management for the Recreation Function, the minimum funding necessary to perform only the most basic oversight of existing recreation outgrants will be included in Initial and Sustaining. Costs to accomplish real estate activities required to issue a new recreation outgrant should be included in Initial also, if the new outgrant will result improved program efficiency, i.e. public recreation opportunities will be provided at less cost to the government. WCC 61550 and WCC 61510 have been revised to reflect only those real estate activities directly related to the recreation program.

g. For recreation projects with no Corps operated recreation areas (PL 89-72 projects and/or projects where all recreation areas are outgranted), the minimum costs to provide necessary oversight of existing recreation outgrants will be included in Initial in WCC 60550. Minimum costs to fulfill Corps requirements for visitor health and safety should be included in Initial in WCC 60511. (Costs for non-routine maintenance, i.e. facility replacement and for minimum health and safety should be included in Improvement Increment.)

h. For WCC 60560, Environmental Compliance Management for the Recreation Function, the work required to comply with environmental protection mandates (i.e., laws, executive orders and court orders) will be included in Initial. Include the amount of funds required to meet minimum environmental compliance and safety standards and to satisfy other legally binding requirements.

i. For Construction and MR&T construction, see Annex II. In the PY, there will be no work packages developed for recreation in Investigations or MR&T studies.

G-11. Increments Above Initial, Sustaining and Remaining. The Recreation program will have 1 budget increment above Initial, Sustaining and Remaining, the Improvement Increment. This Increment will include most non-routine maintenance activities and all facility improvements and enhancements,

modernization, and new facility construction. No WCC's for Operations Features may be used in Improvement Increment. Budget packages submitted in Improvement Increment should focus on a primary purpose which can be identified by the appropriate indicator as defined in paragraph G-13. Inappropriate bundling of work items should be avoided. A detailed description of the planned work should be provided in the description field in Rec-BEST. A clear description could improve consideration of a budget package for funding. Descriptions should be clear, concise and accurately identify the work to be accomplished. Identify the risks and consequences if not funded, as well as the benefits/performance improvements, if funded. Include items such as: current conditions, deteriorated/outdated features, annual cost savings, health, safety and management issues resolved, increased revenues, improved efficiencies, and other pertinent information that quantifies the work to be accomplished. If the work package includes work that can be broken into subparts, with associated costs, the breakdown should be included in the description.

G-12. Service Levels.

a. Developing budgets using "acceptable service levels" assists in providing more consistent public service levels across the country. Acceptable service levels protect the safety of customers and the integrity of Government assets, as well as assure satisfactory interaction between agency staff and visitors. The guidelines provided in TABLE G-3 should be used to determine requirements for acceptable service during the three consecutive months that constitute the peak recreation season peak of project camping, day use, and/or multipurpose recreation area visitation for budget submission. These guidelines do not apply to access points, overlooks or Class E camp areas.

b. Acceptable service levels range from 32 – 42, with low-intensity use parks at 32 to 36, medium-intensity use parks at 35 to 39, and high-intensity use parks at 38 to 42. The range is established based upon the use or visitor demand placed on facilities rather than the kind or degree of development in the park. A 200 site Class A campground, which has moderate occupancy on a typical summer weekend may require less service than a small day use park located near a city that gets intensive use all week long. Service levels above the target should be reduced actively through the budget process to achieve consistent public service across the Corps. Initial and Sustained budget increments should be developed to provide services within this range as appropriate by intensity of use level. These guidelines were adapted from those developed by the Southwestern Division, as part of their Justified Levels of Service effort. Note that "Visitor Contacts" has been added as an element of "Visitor Assistance" below.

TABLE G-3
Acceptable Levels of Service

Services (Peak Season)				Current service level range	Target ⁰ Service level range
Facility Cleaning ¹	2 days per week (4)	5 days per week (8)	Daily (10)	0 - 10	2 - 10
Facility Mowing ²	6 in. or less 50% of time (4)	6 in. or less 75% of time (8)	6 in. or less 95% of time (10)	0 - 10	2 - 10
Visitor Assistance ³	Ranger Patrols, Daily; Visitor Contacts Daily (3)	Ranger Patrols; Daily; Law Enforcement Agreement in Place; Visitor Contacts daily with periodic water safety/interpretive programs (6)	Ranger Patrols, More than once daily on weekends; Weekend law enforcement patrols; Visitor contacts daily with water safety/interpretive programs weekly (8)	0 - 8	2 - 8
Gate Attendant/Park Host ⁴	Gate staffed on weekends only (3)	Gate staffed less than 7 days per week but always on weekends (6)	Gate staffed 7 days per week (8)	0 - 8	0 - 8
Reservations ⁵	Yes (2)			0 - 2	0 - 2
Urgent Repairs ⁶	Correct within 4 or more days (4)	Correct within 1-3 days (8)	Correct within 24 hrs (10)	0 - 10	4 - 10
Routine Repairs ⁷	Correct within 14-30 days (2)	Correct within 5-14 days (4)	Correct within 1-4 days (6)	0 - 6	2 - 6
Grand Total				0 - 54	12 - 54

Rating	Points ⁸
Below	Low Intensity Use - 0-31 Points Medium Intensity Use - 0 -34 Points High Intensity Use - 0-37 Points
Acceptable	Low Intensity Use - 32 - 36 Medium Intensity Use - 35 - 39 High Intensity Use - 38 - 42
Above	Low Intensity Use - 37 or More Medium Intensity Use - 40 or More High Intensity Use - 43 or More

0. The lower range amounts for elements listed in the Target Service Level Range Column that have a numerical value greater than zero represent the minimum acceptable service level to meet minimal public health and safety standards. One should never submit a budget request that does not at least meet minimal public health and safety considerations. If you are currently not meeting this standard or cannot meet that standard consideration should be given to closing the area until adequate funding can be obtained to provide a safe environment for our visitors. It is unacceptable to meet an acceptable service point range total score without at least meeting the minimum point totals listed for each of the 7 components of service.
1. Includes such things as cleaning of restrooms, shower/toilet buildings, vault toilets, change houses, and bath houses.
2. Includes improved mowing areas located around such things as buildings, facilities, sites, beaches, playgrounds, trail heads, multi-purpose fields/activity areas and along park roadways. Arid areas that require little or no mowing should be scored as "7".
3. A ranger patrol equals a minimum of one trip by one or more uniformed Corps rangers through a park.
4. Gate is staffed by volunteer, contractor or Corps employee. Staffed gate is person on site during 3 peak months of visitation.
5. Reservations for camp sites, shelters or other facilities.
6. "Urgent repairs" are to correct problems that render a site or park unusable or unsuitable for use. This includes such things as electric and plumbing repairs. Examples: A major water leak would be an urgent repair, but a dripping faucet would not. Replacing a stop sign would be an urgent repair. Pruning a storm damaged limb above a campsite would be an urgent repair, but pruning a broken limb in a natural area would not. Without urgent repairs, our customer cannot have full use of the site or facility. (NOTE: All deficiencies or hazards which threaten health or safety must be corrected immediately or the affected site or facility closed to public access.)
7. "Routine repairs" are repairs that should be completed in a fairly short time, but are not urgent. Routine repairs would not require an important visitor facility to be shut down if not completed. Routine repairs do not include major or periodic maintenance, unfunded maintenance, modernization activities, new construction, facility replacement or other work budgeted in Improvement Increment. Routine repairs do not include operational maintenance or services such as facility cleaning, mowing or trash pickup. Routine repairs may include non-recurring work items budgeted in 61511 such as roof patching, sign repair or replacement of damaged non-critical signs, graffiti removal, blading roads and camp pads to repair ruts and potholes, dripping faucet repair, repairing a nonfunctional hand dryer, repair of broken picnic tables, grills and fire rings, repair or replacement of damaged partitions and window screens and other non-urgent repairs to structures and facilities.
8. Use your best professional judgment supplemented with your estimate of the area's occupancy rate when determining use intensity. High Intensity Use -- an area with 100% to 75% of the sites/parking lots occupied on weekends during the peak use season; Medium Intensity Use -- an area with 75% to 25% of the sites occupied on weekends during the peak use season; Low Intensity Use -- an area with less than 25% of the sites/ parking lots occupied on weekends during the peak use season.

G-13. Work Package Indicators. When developing work packages above the Initial program, Operations Project Managers should consider the goals and objectives for the recreation program and PY budget development, as described in this Appendix. Accordingly, the following recreation packages are suggested as appropriate and should be identified with the appropriate indicator(s) in Rec-BEST. Work packages with other purposes may be appropriate and may be included without an indicator.

a. Two sets of indicators are provided to categorize work packages. The first set describes the primary purpose of the work package. Only one of the primary purpose indicators should be applied to a single work package.

(1) Packages for non-operational, non-routine maintenance, such as road paving, roof replacement, erosion control, or utility infrastructure repairs or replacement, i.e. water or sewer systems.

(2) Packages for accessibility improvements, to accommodate persons with disabilities, including packages to fund inventory assessments. A sub-indicator is provided to indicate the budget package corrects a legal deficiency resulting in a civil rights violation, as defined in paragraph G- 4(b).

NOTE: Any facility construction or major renovation must meet current standards. Accordingly, any budget package to construct or renovate facilities should incorporate the costs to meet accessibility requirements, as it would include costs to meet safety requirements or other engineering guidelines. The accessibility indicator is not appropriate for such budget packages unless the primary reason to do the work is for accessibility improvements. If the work would not be done if the site or facility were already accessible, a different indicator should be used.

(3) Packages for efficiency improvements for existing sites and facilities to realize future O&M savings. A field is provided in Rec-BEST to capture the estimated average annual O&M savings resulting from the investment in the first 10 years following the investment.

(4) Packages for new facility construction within an existing recreation area, when such facility construction can be justified on a benefit cost basis.

(5) Packages for critical non-routine maintenance work. Critical non-routine maintenance is defined as work that, if not accomplished in the Budget Year, will result in failure of a necessary component of recreation infrastructure. Work that will restore an inoperable facility to operability may be defined as critical maintenance, if the facility is a necessary component of recreation infrastructure. For example, if the only shower building in a Class A campground was damaged in a storm and rendered unsafe for visitor use, the costs to repair the building and restore it to public use could be identified as critical non-routine maintenance.

b. The secondary set of indicators further describes the work. More than one indicator may apply to a single work package. All indicators that apply should be attached to each work package.

(1) Packages for work to be done in partnership with other private or public entities, such as challenge partnerships, which results in leveraging Corps resources. A field is provided in Rec-BEST to capture the estimated leveraged value of the budget package, i.e. the amount of partner investment in funds, goods or services that would be realized from funding the package.

(2) Packages that will result in expected increased recreation use fee collection of 10% or more for the recreation area or areas affected by the work.

(3) Packages for work that includes a **critical** health and safety component.

G-14. Recreation Budgetary Performance Measures. The following performance measures have been developed for application in the FY14 budget development, review and defense. The incremental change in performance values for these measures will be calculated for each work package developed in Rec-BEST. The three performance measure values will then be normalized to achieve a single value that will be used to rank all work packages at the district, MSC and national levels. See paragraph G-17. Recreation Budget Evaluation System (Rec-BEST), below for more information.

a. Park Capacity - This is an output performance measure of recreation capacity or opportunity. Total possible recreation opportunities in site days/nights provided at a recreation area.

b. Facility Condition and Facility Service - This is an output measure of the quality of the opportunities provided to visitors. Acceptable facility condition standard 4.0 is a facility that requires no more than routine minimal maintenance (changing light bulbs, painting, caulking, asphalt patching, and filling cracks). Reduces visitor health & safety risks and reduces environmental degradation. Refer to paragraph G-19 for additional details on FCI measures and the support of Asset Management of Recreation Program.

c. National Economic Development (NED) Benefit and Benefit/Cost Ratio - This is an efficiency measure of quality opportunities. NED benefits are the economic benefits of project recreation opportunities to the visitors themselves. B/C Ratio is ratio of NED benefits to actual expenditures or program budget.

d. Health and Safety Services Measure- This is an outcome measure of health and safety services to visitors. Acceptable level of service is a typical park in peak season provides cleaning 5 days a week, 2 to 3 ranger patrols and visitor contacts daily, law enforcement in place, periodic public safety programs, and ability to correct urgent repairs within 1 to 3 days.

e. Cost recovery, calculated by dividing recreation use fees collected by recreation funding/expenditure, has been identified as a Recreation Program performance measure. The nationwide values for this measure will be reported to OMB as a part of the overall program efficiency. In FY14, this measure will also be used as a budgetary factor in computing project's B/C ratio efficiency.

G-15. Recreation Budget Construction. The recreation budget will be constructed using the information delivered as requested in paragraphs G-9 through G-14 above. The Recreation Program Team will evaluate the information available and construct a coherent budget that addresses the Recreation Program Mission, Goals and Objectives; the Recreation Budget Goals and Objectives; and focus areas identified above.

a. The Initial program is the starting point on which the performance based recreation budget is constructed. This Initial program will be developed starting with the Initial packages submitted by each project. The total amount of the Initial program will be balanced with above Initial requirements to construct an overall, affordable program that best addresses the Recreation Program Goals and Objectives within the context of the total Corps budget. The Initial program will deliver quantified performance values for the 3 budgetary performance measures – Park Capacity, FCI, and NED Benefit.

b. The sum of the Initial, Sustaining, and Remaining Increments, should represent the total funding requirement to provide acceptable service to 100% of existing customers. This is important information, and care should be taken to assure it is an accurate reflection of that requirement. This total requirement is considered when the ceiling level service program is constructed. An indicator with a text field is provided in Rec-BEST to document if the total of Initial and Sustained Increment increased significantly in PY because of increased O&M requirements resulting from Congressional Adds in prior years. The year and description of the Congressional Add should be noted in the text field.

c. Work packages within the Improvement Increment will be evaluated based on the incremental change in the 3 budgetary performance measures resulting from accomplishing the work. This will provide a single ranking value that will permit ranking of all work packages from 1 to X, from highest to lowest performing work.

d. Work packages in the Improvement Increment will also be identified by work package indicators, which further describe the work to be done. This will permit the segregation of work into categories within which the highest performing work can be identified. For example, the highest performing critical non-routine maintenance can be identified. The highest performing accessibility improvements to be accomplished in partnership with others can be identified. All modernization work can be evaluated based upon its expected increase in fee collection. The combinations of these various data elements result in the capability to create an overall program that is responsive to the Corps requirements, as well as to the interests of OMB, Congress and customers, within a performance based environment.

G-16. Operations and Maintenance Business Information Link (OMBIL) Data Requirements. Data to compute recreation performance measures are maintained in OMBIL. Operations Project Managers should assure that all recreation projects are properly identified in OMBIL with a project site area of type "recreation" and that all OMBIL data required for budget development has been entered and is up to date prior to budget development. For PY, the following OMBIL data will be required by recreation area:

- a. Visitation
- b. Recreation Area Managing Agency
- c. Recreation Area sub-type
- d. Numbers of camp sites
- e. Numbers of day use parking spaces
- f. Visitor Center Type
- g. Campground Class

G-17. Recreation Budget Evaluation System (Rec-BEST) and P2. A web-based tool was developed and first deployed for field use in calculating recreation performance measures for O&M activities in FY06. Rec-BEST uses OMBIL data, supplemented with data provided by the Operations Project Manager, to calculate a value for each of the performance measures associated with each budget package. Using the incremental change in these performance values, Rec-BEST ranks all recreation budget packages at the district, division and HQs levels. Most projects should take the advantage of retrieving data from the previous year in Rec-BEST and review/update the existing budget packages in Rec-BEST instead of creating new ones.

a. The performance measure information must be updated in Rec-BEST by 20 May 2011. These performance data will be extracted from Rec-BEST and then merged with budget data extracted from P2 Primavera Project Manager in OFA on a nightly basis. When entering budget information into P2 Primavera Project Manager, make sure the corresponding BEST ID's are entered for all budget packages to ensure the proper performance measures can be matched in OFA. For most projects, the preliminary budget information and the matching BEST_ID's can be carried over from previous year's data entry in P2 or should be taken from the existing Rec-BEST database. Projects that start their FY12 budget development in Rec-BEST should first provide the budget information to their P2 correspondent for data entry in P2 before the deadlines set by the district/division. This enables districts and their MSC to review and evaluate budgets comprehensively, across business lines. Projects that first enter budget data into P2 first based on FY12 Rec-BEST budget package information, make sure to revise Rec-BEST budget information accordingly. For either option, matching BEST_ID must be used when entering budget information in P2. The information needed to provide to P2 correspondents for data entry is available on the P2 summary page in Rec-BEST. For the PY budget, performance measure output data from Rec-BEST will be loaded to OFA every night once the projects have submitted data input in Rec-BEST and the budget items have been created in P2-OFA. As the budget review continues, additional Recreation budget review data and detailed rollup spreadsheets will be available to the MSC's and, may be accessed through the NRM Gateway at <http://corpslakes.usace.army.mil/employees/recbest/recbest.html> along with directions for its use.

b. Rec-BEST will not be used for Construction work packages. No Investigation work packages will be developed for recreation.

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G-18. Risk Assessment of Recreation Assets. The Recreation business line PY budget continues to improve on USACE asset management efforts and is in line with the Navigation, Hydropower and Flood Risk Management business lines using a common format to address risk. The Relative Risk Rankings will use 1 through 5 rating scale, where 1 is the most critical need, to coincide with the Dam Safety Action Classification (DSAC) and Levee Safety Action Classification (LSAC) rating scales of 1 through 5. There will be five levels of Probability/Condition and five levels of Consequences/Economic Impact. These will be used to develop a Relative Risk Ranking Matrix shown in TABLE G-6 below. The Relative Risk Ranking Matrix values will be applied to all work packages and will be generated automatically in OFA.

a. Predicted component conditions should be determined by completed Operational Condition Assessments (OCA) for recreation structures utilizing the Facility Condition Index (FCI) process in Rec-BEST. All 6 categories of facilities will be assessed: Roads & Parking, Boat Ramps, Buildings, Sites (picnic, camp), Signs and Utilities (water, electric and sewer).

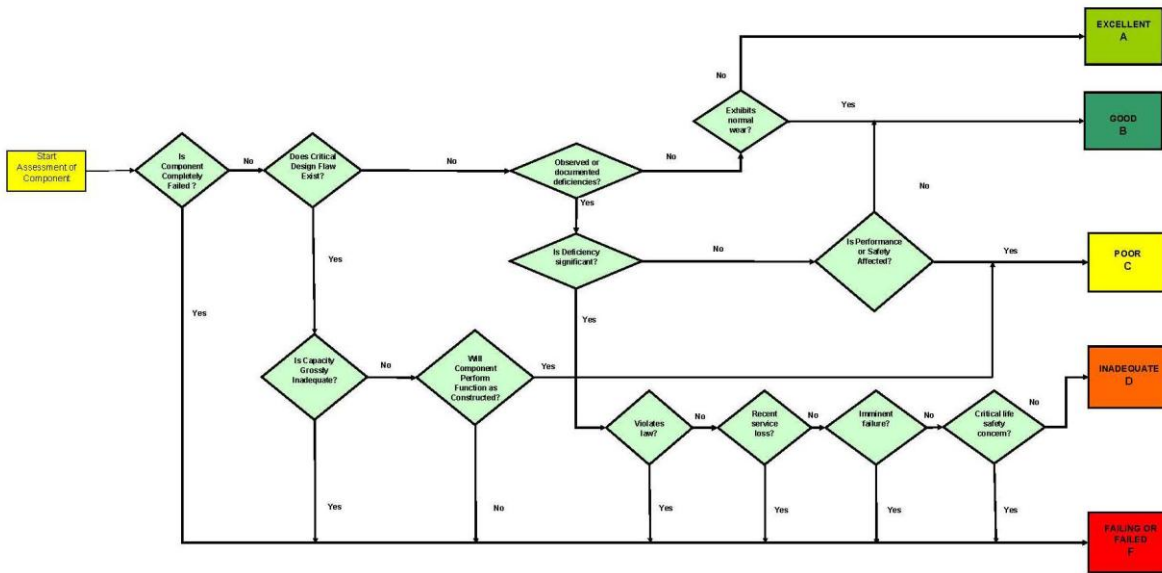
b. Detailed descriptions of the process that OCA teams used to implement the OCAs can be found on the Asset Management SharePoint site at: <https://kme.usace.army.mil/CoPs/AMC/default.aspx>. Go to the web site and page down to "Shared Documents".

c. The OCA process for performing operational condition assessments can be illustrated in Figure G.1 Condition Rating Flow Chart below. This flow chart and general condition rating definitions can be viewed in the Shared Documents, select "Large Format OCA Displays". The condition rating from the OCAs are then combined with the component importance factors (mission and safety) determine a "condition classification" which enables gradation within the condition axis of the 5x5 matrix to better assist in investment decisions.

d. Project staffs, including operation project managers, maintenance leads and recreation program staff will be essential participants of the OCA process and must be actively represented and involved for successful implementation of the Asset Management Program for Recreation. The project staff must maintain continual awareness of the current OCA ratings for components at their project. Project staff must assure that all critical project components have be addressed and assigned a rating. Risk and consequence will be auto populated from Rec-BEST to OFA and available for district and MSC ranking purposes.

ILLUSTRATION G.1

Condition Rating Flow Chart



Condition Rating Flow Chart

e. A risk assessment involves identifying conditions for sources of potential failures, assessing the likelihood or confidence level that they will occur and the consequences if it does occur. Facility condition classifications for budget requests shall be developed for each budget work package. These classifications will provide a basis for capturing the state of the infrastructure or component thereof. In addition, these classifications provide a foundation for managing USACE infrastructure uniformly and consistently using asset management principles, systems and risk-based condition indices for operating and maintaining projects while embracing the concept of high performance priority goals. It is critical that an honest, defensible assessment and evaluation of each work package be made for the ranking process in order to accurately provide a snapshot of where scarce resources need to be allocated. These will be used to develop a Condition Classification Ranking Matrix shown in TABLE G-7 below.

f. A risk assessment involves identifying sources of potential consequences. Consequences of diminished project National Economic Development Benefits of each work package will be categorized based on economic loss and visitor impacts. These will be used to develop a Consequence/Economic Impact Category Ranking Matrix shown in TABLE G-8 below.

Condition Consequence		TABLE G-6 Recreation 1-5 Relative Risk Index Matrix Condition Classification				
		F Failed	D Inadequate	C Probably Inadequate	B Probably Adequate	A Adequate
		Consequence/Economic and Visitor Impact	I	1	1	2
II	1		2	2	3	4
III	2		2	3	4	4
IV	2		3	4	4	5
V	3		4	4	5	5

	High Relative Risk
	Med-High Relative Risk
	Medium Relative Risk
	Low Relative Risk
	Minimal Relative Risk

(1) Condition Assessment. Begins with a determination of which budget packages are critical and which are non-critical as identified in Rec-BEST for the budgeted year. In addition, the itemized Facility Condition Index (FCI) for key recreation facilities will be used to assess the overall condition classification.

F. Failed condition represents that the feature has failed or failure will occur within budget cycle and is no longer operable without further tests, repairs, or replacement.

D. Poor condition represents that the feature does not perform well under normal operating conditions - does not meet Corps design or industry standards. Expect to receive numerous customer complaints. Physical signs of serious damage or deterioration are present. Extensive non-routine maintenance is necessary.

C. Fair condition represents that the feature will perform under normal operating conditions—does not meet Corps design or industry standards. Expect to receive customer complaints. Non-routine maintenance is necessary.

B. Good condition represents that the feature will perform well under normal operating conditions. Although the overall facility condition may have met Corps design or industry standards, minor maintenance may be necessary.

A. Excellent condition represents that the feature will perform well under normal operating conditions and meet current Corps design or industry standards. Routine O&M is recommended.

Output of the process is shown in TABLE G-7 below.

TABLE G-7		
Recreation		
Condition Classification		
Condition Classification		Condition Description
Failed	F	FAILED (Already failed or failure will occur within budget cycle) - Packages identified as "critical maintenance" and/or with "critical health and safety component" in Rec-BEST
Poor	D	INADEQUATE (High probability for failure within budget cycle) - Overall FCI is below acceptable and has at least one item identified as "Poor" conditions
Fair	C	PROBABLY INADEQUATE (Failure could occur within budget cycle) - Overall FCI is below acceptable
Good	B	PROBABLY ADEQUATE (Less than 50% probability of failure within budget cycle) - Overall FCI is above acceptable and below the top 10 percent
Excellent	A	ADEQUATE (Failure unlikely within budget cycle) - Overall FCI in the top 10 percent.

(2) Consequences of diminished Project National Economic Development Benefits feature. Begins with a determination of the uniqueness of recreation opportunities provided in places with and without substitutions as identified in Rec-BEST to evaluate impacts to visitors. The National Economic

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Development (NED) benefits computed in Rec-BEST are used to evaluate the economic benefits of the recreation opportunities to the visitors themselves. In addition, impacts of the proposed budget items to the provision of health and safety to the visitors and cost recovery will be used to categorize the consequences.

I. Highest economic loss and visitor impacts. Projects with the highest NED benefits and visitors and facility/feature has no substitute within 2 hours travel time from project. Failure has already resulted or will occur within budget cycle in public fatalities, serious injuries, spread of infectious diseases, and/or loss of public property with the lodging of claims against the government and/or claims paid by government. Project collects significant camping and day use fees.

II. Medium to high economic loss and visitor impacts. Projects with high NED benefits and visitors and facility/feature has no substitute within 1 hour travel time from project. Existing hazardous condition(s) are present which have a significant potential to result in public fatalities, serious injuries, spread of infectious diseases, and/or loss of public property that could result in the lodging of claims against the government. Project collects significant camping or day use fees.

III. Medium economic loss and visitor impacts. Projects with medium size NED benefits and visitors. If existing condition(s) are not addressed during the current budget cycle, they COULD create a public health environment with significant potential for serious injury, loss of/damage to public property, or public illness created through the spread of infectious disease. Project collects some or low camping and day use fees.

IV. Low economic loss and visitor impacts. Projects with low NED benefits and visitors. Currently no reported conditions affecting public or employee safety or public health exists, but the potential exists for the creation of a public health environment with a low potential for serious injury, loss of/damage to public property, or public illness created through the spread of infectious disease. Project collects of camping and day use fees are insignificant.

V. Minimal economic loss and visitor impacts. Projects with minimal NED benefits and visitors. Currently no reported conditions affecting public or employee safety or public health exists, any potential for a significant condition developing lies 10 or more years beyond current year. Project collects no camping and day use fees.

Output of the process is shown in TABLE G-8 below.

TABLE G-8		
Recreation Consequence/Economic and Visitor Impact Category		
Consequence Category		Consequence Rating Criteria
High	I	Highest economic loss and visitor impacts. Project NED benefits in the top 10 percent, or no substitutions within 2 hr. travel time.
Medium - High	II	Medium to high economic loss and visitor impacts. Project NED benefits in the top 25 percent, or no substitutions within 1 hr. travel time
Medium	III	Medium economic loss and visitor impacts. Project NED benefits in the top 45 percent
Low	IV	Low economic loss and visitor impacts. Project NED benefits between 45 to 70 percent
Minimal	V	Minimal economic loss and visitor impacts. Project NED benefits in the bottom 30 percent

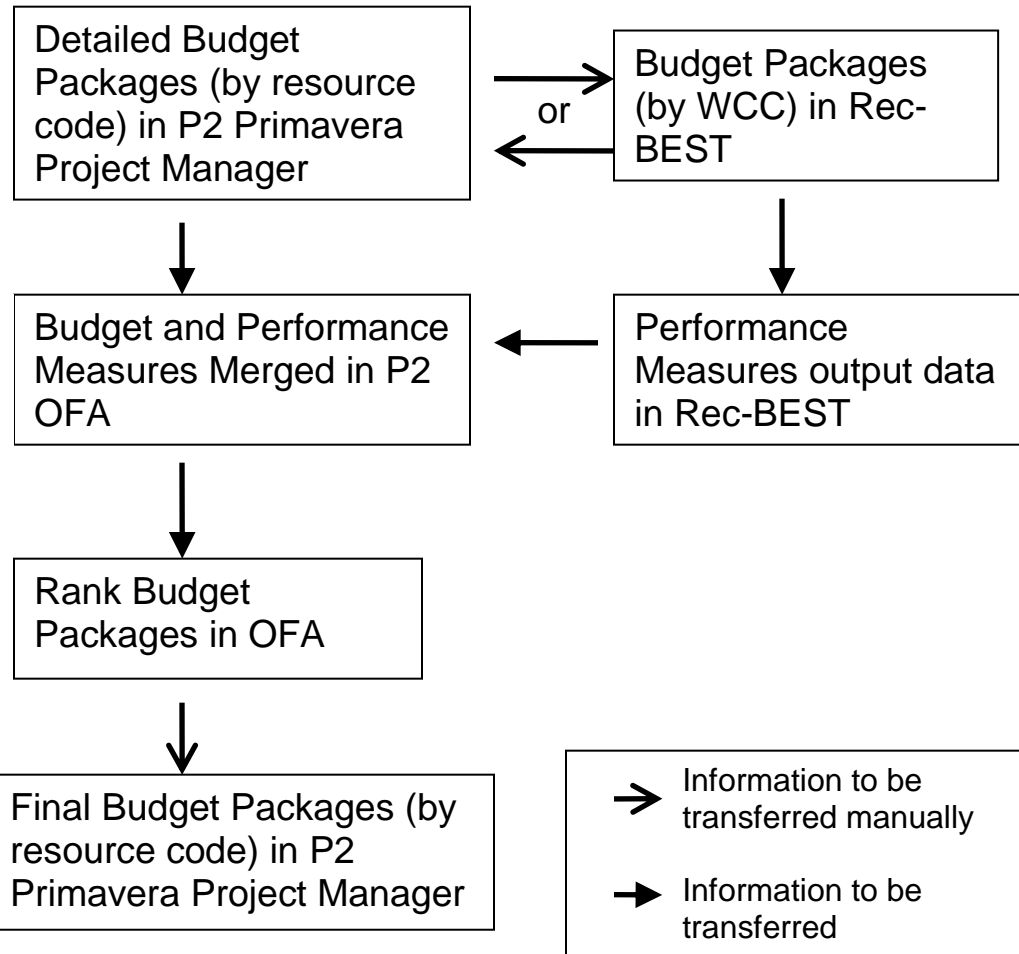
ILLUSTRATION G.2

PY Recreation Budget Development Work Flow

Two options for building the FY14 budget: 1. Start in Rec-BEST and then provide the budget information to the P2 correspondent for data entry in P2. 2. Start the budget development in P2 then revise the Rec-BEST budget information accordingly. For either option, it is recommended that the FY13 Rec budget entered in P2 should be carried over to FY14 to minimize the efforts of entering the same budget information again. Make sure to enter the matching BEST_ID when entering budget information in P2. Performance measure output data calculated in Rec-BEST will be uploaded to OFA to match with all budget packages entered in Project Manager. Direct access to Rec-BEST database will be available for District and Division quality assurance review.

HQ and MSC business line managers develop the nationwide program using budget and performance measures submitted in P2 and Rec-BEST. Recreation budget is then submitted to HQ, ASA, and later OMB for budget appropriation.

Final budget adjustment in P2 based on President's budget. Manually adjust budget information in P2 Primavera Project Manager based on final budget appropriation recorded in OFA.



APPENDIX H

Regulatory

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APPENDIX H

Regulatory

H-1. Background. The Regulatory program protects the aquatic environment by regulating the discharge of dredged and fill materials and other construction-related activities in jurisdictional waters of the United States. This responsibility is mandated by the Clean Water Act and the Rivers and Harbors Act of 1899 and other laws. During the past decade, the Corps Regulatory program evaluates and makes permit decisions for over 80,000 applications a year for projects that impact waters of the United States, including wetlands.

H-2. Objectives. The goal of this appendix is to provide guidance to all Districts to request funds to perform its Regulatory mission as determined by FTE execution and non-labor costs associated with specific levels in the performance measures. The Regulatory Objectives and Performance Measures are provided below in TABLE H-1, "Regulatory Goals and Performance Measures." The Performance Measures were developed in efforts to link the Regulatory Budget to performance and supporting data that would provide information on the effectiveness of the program. For example, the Objective "No Net Loss of Aquatic Resources" will be informed by data captured through Performance Measures 1 through 6. Based on the national budget priorities, the Corps will be provided funds to administer the Program. Because the Corps Regulatory program is predominantly a labor-based program, dollars allocated to District Programs are directly correlated to the target percentages for each of the Performance Measures. The percentage targets for each of the performance measures are designed to evaluate performance of these objectives based on available budget and to provide information on the veracity of data for the overall Program Goals. For example, data collected during compliance visits (i.e., percent of sites meeting performance criteria and are in compliance with the issued permit) provide information on the success of the Program Goal of "Avoidance and Minimization of Impacts" by confirming the special conditions placed on applicants are completed as required. Higher target percentages for the Performance Measure will result in more first time compliance site visits, which will provide a better measure of success for the Objectives.

H-3. Civil Works Ten-Year Development Plan. The purpose of Civil Works Ten-Year Development Plan is to present an overview of the funding required for the Civil Works Program over a 10-year period. The Five-Year Development Plan (FYDP), a stand alone document, will be based on a subset of the 10- year plan and will produce results that contribute to achievement of the strategic goals and objectives in the Civil Works Strategic Plan. For the Regulatory program, the proposed increments included in this EC were developed to provide the glide path to get the program to its target goals within the proposed ten-year plan

H-4. Activities. The program has historically categorized, allocated, and expended funds within the following categories:

Activity	Work Category Code	AMSCO Code
Permit Evaluation	100	008204
Enforcement and Resolution	210	008205
Studies	300	088890
Other Regulations	400	008207
Environmental Impact Statements	500	088870
Administrative Appeals	600	013579
Compliance: Authorized activities and mitigation	800	010688

This categorization allows the districts to distribute funds into particular categories and track utilization. These accounts also provide information on the effectiveness of the program within each of the categories.

TABLE H-1 Regulatory Goals and Performance Measures	
Program Goals	Performance Measures
No Net Loss of Aquatic Resources Avoidance and Minimization of Impacts to Aquatic Resources	1. Individual Permit Compliance The Corps shall complete an initial compliance inspection on XX% of the total number of all individual permits (including LOPs) issued during the preceding FY where authorized work is underway.
	2. General Permit Compliance. The Corps shall complete an initial compliance inspection on XX% of the total number of all General Permits (including NWP) issued during the preceding FY where authorized work is underway.
	3. Mitigation Site Compliance The Corps shall complete field compliance inspections of XX% of active mitigation sites each fiscal year. Active mitigation sites are those sites authorized through the permit process and are being monitored as part of the permit process but have not met final approval under the permit special conditions (success criteria).
	4. Mitigation Bank/In Lieu-Fee Compliance The Corps shall complete compliance inspections/audits on XX% of active mitigation banks and in lieu fee programs annually.
	5. Resolution of Non-compliance Issues. The Corps will reach resolution on XX% of all pending non-compliance actions for permits with special conditions and/or mitigation requirements that are unresolved at the end of the previous fiscal year and have been received during the current fiscal year.
	6. Resolution of Enforcement Actions. The Corps shall reach resolution on XX% of all pending enforcement actions (i.e., unauthorized activities) that are unresolved at the end of the previous fiscal year and have been received during the current fiscal year.
Expedite Permit Processing	7. General Permit Decisions. The Corps shall reach permit decisions on XX% of all General Permit applications within 60 days.

	8. Individual Permits. The Corps shall reach permit decisions on XX% of all Standard Permits and Letters of Permission (LOPs) within 120 days. This standard shall not include Individual Permits with Formal Endangered Species Act (ESA) Consultations.
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H-5. Performance Measures.

a. Performance Measure 1. Individual Permit Compliance. The Corps shall complete an initial compliance inspection on XX% of the total number of all individual permits (including LOPs) issued during the preceding FY where authorized work is underway.

b. Performance Measure 2. General Permit Compliance. The Corps shall complete an initial compliance inspection on XX% of the total number of all General Permits (including NWP) issued during the preceding FY where authorized work is underway.

c. Performance Measure 3. Mitigation Site Compliance. The Corps shall complete field compliance inspections of XX% of active mitigation sites each fiscal year. Active mitigation sites are those sites authorized through the permit process and are being monitored as part of the permit process but have not met final approval under the permit special conditions (success criteria).

d. Performance Measure 4. Mitigation Bank/In Lieu Fee Compliance. The Corps shall complete compliance inspections/audits on XX% of active mitigation banks and in lieu fee programs annually.

e. Performance Measure 5. Resolution of Non-Compliance Resolution with Permit Conditions. The Corps will reach resolution on XX% of all pending non-compliance actions for permits with special conditions and/or mitigation requirements that are unresolved at the end of the previous fiscal year and have been received during the current fiscal year.

f. Performance Measure 6. Resolution of Unauthorized Activities. The Corps shall reach resolution on XX% of all pending enforcement actions (i.e., unauthorized activities) that are unresolved at the end of the previous fiscal year and have been received during the current fiscal year.

g. Performance Measure 7. Processing of General Permits. The Corps shall reach permit decisions on XX% of all General Permit applications within 60 days.

h. Performance Measure 8. Processing of Individual Permits. The Corps shall reach permit decisions on XX% of all Standard Permits and Letters of Permission (LOPs) within 120 days. This standard will not include Individual Permits with Formal Endangered Species Act (ESA) Consultations.

H-6. General Submission Guidance. Data will be entered into the P2 Program under "REG" as the Primary Business Line. A separate (inactive) FY 14 Budget WBS should be added and funds scheduled must reflect the requested resource needed for the funding FTEs and non-labor items that will be requested to achieve performance levels outlined in paragraph H-10. MSCs should insure that submissions reflect uniform and consistent levels of work effort among the Districts and those submissions accurately reflect the required level of service.. Divisions should include a , a Level 1 Regulatory activity to cover costs associated with only the execution of administrative appeals program, not to exceed \$180,000.00.

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H-7. Types of Activities (Projects) and Work Functions. Resource needs under the Regulatory appropriation can be submitted for up to seven activities. The seven Regulatory activities are Permit Evaluation- 100, Enforcement- 210, Studies-300, Other Regulations-400, Environmental Impact Statements (EISs)-500, Administrative Appeals-600, and Compliance- 800. Resources can be further identified according to P2 Resource codes and are at the discretion of the individual districts.

H-8. Definition of Activity (Project) Categories. Regulatory is divided into seven activity categories:

a. Permit Evaluation (100). Includes all costs related to the review and evaluation of permit applications under Section 9, 10, 103 and 404 as well as environmental assessments supporting this review. Cultural resource investigations, jurisdiction determinations, public hearings, and other activities related to application evaluation are included as are general permit development and consideration of activities under general permits. Resource requests are no longer to be entered in the sub-accounts (110, 120, & 130).

b. Enforcement (210). Includes all costs related to those activities associated with unauthorized activities and jurisdiction determinations related to enforcement actions, ground and aerial surveillance, and follow-up on violations.

c. Studies (300). Includes all costs related to studies such as jurisdiction studies (actual jurisdiction determinations are included under permit evaluation), mapping, wetland studies, shoreline inventories, and collection of data for environmental databases. Resource requests must be grouped by an identified and defined specific study. Studies may be only submitted at level 2 funding or above.

d. Other Regulations (400). Includes all costs related to administration of the miscellaneous regulations such as danger zones and restricted areas, plus review of Section 402 applications. Recent security concerns may require a need for funds for administration of restricted areas and danger zones.

e. Environmental Impact Statements (EISs) (500). Includes all costs required for preparation of EISs when Corps is the lead or co lead in the management of an EIS required for an application. In most cases, these costs are associated with Corps review and management only; applicants are responsible for development and analysis. Approval by the MSC and Headquarters is required where the Corps Regulatory Program proposes to provide more than management and review services for any EIS. Resource requests will be grouped by identified and defined EISs. Any new project-specific EISs will be resourced under the district Regulatory office organization codes since review will occur in the Regulatory office. Some resource requests for programmatic EISs may require support from other offices and those organization codes should be used. All EISs must be identified as either ongoing or projected and the percent probability of the EIS being required should be indicated. Costs associated with the review of non-Corps EISs are to be included under Permit Evaluation, unless the review is of an in-depth nature requiring more than \$5,000. No request for EIS may be submitted where the EIS is not specifically identified. Costs for EIS's may be submitted at Level 1 and 2 if the EIS is ongoing or a determination has been made it will be undertaken in the FY 14 budget year. An EIS, where there has been a preliminary decision that it will likely be needed, should be placed in Level 2, ranked below any request tied to performance.

f. Administrative Appeals (600). At the Division level, the Administrative Appeals request should reflect Costs to support work undertaken by the Division Engineer designated Appeal Review Officer. Costs should include travel, training and related costs incurred, during the execution of the appeals program only and may not exceed \$180,000.00. At the District level, the Administrative Appeals request should reflect cost to performing work to prepare the administrative records for submittal to Appeal Review Officer, participation in Appeal conferences, and other duties in support of the Division appeals

process. Work associated with the review and evaluation of permit or Jurisdictional determination as a result of a Review officer remand should be accounted for in the Permit Evaluation activity category.

g. Compliance (800). Includes all costs related to compliance inspections of authorized work for a percentage of the authorized activities and the associated mitigation sites (including mitigation banks, in-lieu fee programs, and site specific mitigation). This category includes costs associated with resolution of non-compliance found as part of inspections as well as administrative civil penalties for non-compliance.

H-9. Definition of Resources.

a. Labor (LABOR). Fully burdened labor costs required to pay salaries and benefits of personnel (except contracted personnel) and normal office operational costs to support these personnel according to the service provided at each level, i.e., only manpower and costs related to manpower necessary to meet the performance measures should be included at that level. Labor will be input by organization code (Regulatory and support to Regulatory by all other District elements). Items to include are: overhead costs not separately charged under another P2 resource code such as rent, utilities, communications, computer systems, travel, training, reproduction, supplies, etc.

(1) Support Labor Costs are defined as any organization providing technical assistance, legal assistance, or other assistance not supervisory or administrative in nature to the Regulatory office.

(2) Admin. Labor costs are defined as any direct labor cost for organizations above the Regulatory Office that charge labor for supervision, management or oversight.

b. Vehicle Costs (GSAVEH). All projected vehicle costs to perform work at the identified activity level.

c. Printing (PRINTING). All printing costs associated with the identified activity level.

d. Other contractual services (OTHCONSVC). Any contractual services required at the identified activity level. All mission support type contracts must be listed (new or renewal of existing contracts). Examples of work to be shown are: aerial photography; inspection contracts; cost sharing agreements with states or other Federal agencies; contractual personnel; and data gathering contracts.

e. Travel (TRAVEL). All direct-charged travel costs required to meet goals of identified activity level.

f. Any other appropriate P2 resource code required to meet stated Regulatory Program goals. Resources shall be entered at the appropriate activity and funding level. Districts should not schedule funds for resources the program would typically not incur (AE contracts, construction placement, and land acquisition).

g. Data acquisition costs. Costs associated with the acquisition of data in support of watershed level analyses, inclusion in CorpsMap2 or ORM 2. Districts should consider submitting line item level 2 budget requests for priority data acquisition (beyond that provided by HQ and other sources) if it is determined to be critical for analysis of project impacts, cumulative impacts, and mitigation within targeted watersheds. Requests for acquisition of data should be part of the non-labor costs in table H-2.

H-10. Funding Levels. District Regulatory resource requirements should be submitted in three Funding Levels. Each level must include a scheduled breakdown of all costs associated with the Regulatory Program operating budget. This will include a break out of costs based on FTEs utilization in Regulatory, FTE utilization in support to Regulatory from other offices, and any administrative FTE utilization (e.g. Office of Council). Additionally, each level must include any non-labor costs that are separate from the General and Administrative overhead. As part of each funding level, Districts will also be required to report the expected Effective rate, Indirect rate and General Overhead rate (G&A) that will be applied to the aforementioned FTE utilization. Costs to support all activity categories can be combined provided that no more than 25% of the total request be resourced for the Compliance (800) and Enforcement (210) responsibilities collectively.

a. Funding level 1. The Level 1 funding package is designed to provide a balanced, operational, program based on the funding level no greater than the FY 12 District baseline allocation. Resource requests should be submitted detailing the break out of FTEs utilization in Regulatory, FTE utilization in support to Regulatory from other business lines, and any administrative FTE utilization. Essential Non-labor costs should also be included in the request. Districts should resource the appropriate activity categories to meet the following target level of performance:

Compliance requests(s) to meet the following levels of performance:

Performance Measure 1	Individual Permit Compl Insp	Level 1 Target: 10%
Performance Measure 2	General Permit Compl Insp	Level 1 Target: 5%
Performance Measure 3	Mitigation Site Compl Insp	Level 1 Target: 5%
Performance Measure 4	Mitigation Bank/ILF Compl Insp	Level 1 Target: 10%
Performance Measure 5	Resolution of Non-compliance	Level 1 Target: 10%

Enforcement requests(s) to meet the following level of performance:

Performance Measure 6	Resolution of Unauthorized Activities	Level 1 Target: 5%
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Permit Evaluation requests(s) to meet the following levels of performance:

Performance Measure 7	Processing of General Permits	Level 1 Target: 60%
Performance Measure 8	Processing of Individual Permits	Level 1 Target: 40%

b. Funding Level 2. The level 2 funding package was designed to provide a balanced, operational, albeit reduced, program that will meet the performance goals for permit processing along with an increase in compliance and enforcement efforts from level 1. The incremental increase of all resource requests at level 2 should allow the district to provide the following increased levels of service and performance. Level 2 requests may include activities or initiatives, not directly contributing to meeting the measures but in support of the Regulatory Program (e.g. studies, PEIS, Outreach) and Goal 2c of the USACE Campaign Plan.

Compliance request(s) to meet the following levels of performance:

Performance Measure 1	Individual Permit Compl Insp	Level 2 Target: 10%
Performance Measure 2	General Permit Compl Insp	Level 2 Target: 10%
Performance Measure 3	Mitigation Site Compl Insp	Level 2 Target: 10%
Performance Measure 4	Mitigation Bank/ILF Compl Insp	Level 2 Target: 10%
Performance Measure 5	Resolution of Non-compliance	Level 2 Target: 15%

Enforcement request(s) to meet the following level of performance:

Performance Measure 6	Resolution of Unauthorized Activities	Level 2 Target: 10%
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Permit Evaluation request(s) to meet the following levels of performance:

Performance Measure 7	Processing of General permits	Level 2 Target: 75%
Performance Measure 8	Processing of Individual Permits	Level 2 Target: 50%

c. Funding Level 3. The level 3 funding package was designed to meet all the requirements at the level 2 funding requests represent the fully funded program, meeting all stated Program Objectives. After requests have been submitted to meet the performance targets, additional, non-mandatory requests to enhance the program may be submitted.

Compliance package(s) to meet the following levels of performance:

Performance Measure 1	Individual Permit Compl Insp	Level 3 Target: 20%
Performance Measure 2	General Permit Compl Insp	Level 3 Target: 15%
Performance Measure 3	Mitigation Site Compl Insp	Level 3 Target: 15%
Performance Measure 4	Mitigation Bank/ILF Compl Insp	Level 3 Target: 50%
Performance Measure 5	Resolution of Non-compliance	Level 3 Target: 20%

Enforcement package(s) to meet the following level of performance:

Performance Measure 6	Resolution of Unauthorized Activities	Level 3 Target: 20%
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Permit Evaluation request(s) to meet the following levels of performance:

Performance Measure 7	Processing of General permits	Level 3 Target: 90%
Performance Measure 8	Processing of Individual Permits	Level 3 Target: 75%

H-11. Scheduling . All scheduling for Regulatory labor shall ultimately result in the estimation of FTEs at each funding level and should be broken out by business line providing support to the program. *IMPORTANT:* In order to insure that labor requests are considered, districts should be certain that the appropriate number of FTEs are reflected in the appropriate Primary Business Line (REG) in P2.

H-12. Points of Contact. Questions pertaining to policies, procedures, or format of the Regulatory Program activity should be referred to HQUSACE, Mr. Jon Soderberg at (202) 761-7763.

H-13. Submission Requirements. See TABLE 2 in the MAIN part of this EC for applicable suspense dates for submission of budget data.

H-14. Division Funding & Staffing Summary. Districts are to include any specific study, EIS, program or administration initiative request in table H-2. These items should be listed by name and include specific dollar amounts as well as projected FTEs needed to accomplish the task at the given level. In addition, each district will prepare and submit electronically to its division office the funding and staffing information summary in TABLE H-3. Level 2 and 3 calculations should be cumulative and include the subsequent level request. (e.g. Level 1 \$5,000,000.00, Level 2 \$6,500,000.00, Level 3 \$8,000,000.00). A Staffing (FTE) summary should be developed from the resource requirements of each Funding Level created in P2. The summary should include any items a district listed in table H-3 Divisions will consolidate the districts responses and forward these to HQUSACE electronically in an excel table format. The division table will sum district amounts for each category and level (cumulatively and by district). Divisions will include the Division office amounts for Administrative Appeals to the summary table.

TABLE H-2

District: Example
 Study/EIS/Initiative (\$000)

Funding Level	Name	Details of request	FTE in Regulatory	Fully Burden Reg Labor costs	FTE Support to Regulatory	Support Labor cost	Total Labor Costs	Non-labor Costs	Total Request
Funding Level 1									
Funding Level 2									
Funding Level 3									

TABLE H-3

Division/District: Example
 Funding Summary(\$000)

Funding Level	FTE in Regulatory	Fully Burden Reg Labor costs	FTE Support to Regulatory	Support Labor cost	Admin FTE	Admin Labor costs	Total Labor Costs	Non-labor Costs	Total Request	Effective Rate	DOH Rate	G&A Rate
Funding Level 1												
Funding Level 2												
Funding Level 3												

APPENDIX I

Water Supply

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APPENDIX I

Water Supply

I-1. Background. The Corps of Engineers has provided water supply storage space in its multi-purpose reservoirs for many years. Based on current data, approximately 9.7 million acre feet of municipal and industrial (M&I) water supply storage space are included in 135 reservoir projects in 26 states. Approximately 94% of this storage is under contract for present or future use and 57% of the investment cost of the storage space (estimated at \$1.4 billion) has been repaid and the money deposited into the U.S. Treasury. Although the primary responsibility for developing water supplies for domestic, municipal, industrial and other purposes rests with State and local interests, M&I storage space may be recommended for inclusion in any Corps reservoir pursuant to the Water Supply Act of 1958. Studies associated with reallocation of water for M&I and/or environmental purposes; although not considered low priority, must compete with all activities in a constrained budget environment.

I-2. Purpose. As one of the nation’s largest water management agencies, the U.S. Army Corps of Engineers plays an important role in ensuring that Americans have enough water to meet their needs. The Water Supply program currently is capable of providing about 6.6 billion gallons of water per day to allow State and local interests to supply cost-effective water to homes, businesses and farms nationwide.

I-3. Goals and Objectives. TABLE I-1 displays the Water Supply Program Objectives and Performance Measures published in the September 2011 Civil Works Strategic Plan. The CW Strategic Plan was developed with an explicit assumption of an unconstrained resource environment to encourage an unconstrained assessment of the nation’s water resources needs and potential Corps response. Preparation of the PY budget request requires the recognition of a constrained budget environment and the ongoing effort to evolve better budget linked performance measures.

TABLE I -1

Water Supply Objectives and Performance Measures

Program Objectives	Performance Measures
In partnership with non-Federal water management plans and consistent with law and policy, manage Corps reservoirs to provide water supply storage in a cost efficient and environmentally responsible manner.	Acre-feet of storage under contract versus acre-feet available. Percentage of costs covered by revenues returned to Treasury.

I-4. Performance Measures.

a. The Corps Water Supply program is well established and valued, however our capability to continue to supply storage is dependent on our ability to demonstrate cost-efficiency of water storage and need for additional storage space for water supply purposes. The performance measures contained in TABLE I-1 are part of the deliberations on the Corps Strategic Plan. Both measures reflect on the ability of the Water Supply program to return revenues to the Treasury. In that regard a secondary program

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objective will be to increase revenues to the Treasury through the reallocation of storage space from other authorized purposes and the timely collection of payments from existing water supply contracts. The Corps water supply program is very cost effective. For 2010, \$83.6 million was collected in principal and interest (P&I) payments and an additional \$17.9 million for O&M expenditures. The water supply budget included about \$1.9 million to collect this \$101.5 million for an efficiency ratio of about 53 to 1. All collections are returned to the U.S. Treasury as miscellaneous receipts.

b. In the above table the term "acre-feet of storage under contract" refers to both present and future use contracts and "acre-feet available" is defined as acre-feet of storage authorized for M&I water supply to include both originally authorized storage space as well as that storage space reallocated for which a water supply agreement has been signed. For the performance measure "percentage of costs covered by revenues returned to Treasury" is a measure of the total costs of the storage space minus the costs recovered. The development of these values is the product of the water supply module of OMBIL.

I-5. Budget Increments for PY Budget Development. In order to achieve the above objectives, we are establishing budget increments, to assure uniformity across the country in building annual budgets from the same point. For water supply, budget increments will be established by funding category. See the Glossary at the end of this EC for detailed and additional budget definitions.

a. Investigations (I): This is for water supply studies funded under the Investigation budget and includes the funding for the Feasibility phase of water supply reallocation reports and the associated water supply agreement for those reallocations which have received additional authority.

(1) Increment 1. This increment will include only the minimum continuing activities and the total request is limited to the budget amount for PY -1, by study. Do not include new PED or study phases. Increment must be performance based and integral with a study/project with high outputs and consistent with ranking.

(2) Increment 2. New phases of studies previously budgeted may be initiated in this increment. Increment must be performance based and integral with a study/project with high outputs and consistent with ranking.

(3) Increment 3. This increment will include the activities needed to sustain (not fall behind/not accelerate) the study schedule included in the Project Management Plan (PMP). New starts and resummptions may be included. Increment must be performance based and integral with a study/project with high outputs and consistent with ranking.

(4) Increment 4. This increment includes additional capability activities that can be supported by cost sharing sponsor and Corps resources. This increment can be viewed as enhancing (or advancing) the study schedule at a faster pace than shown in the PMP. Increment must be performance based and integral with a study/project with high outputs and consistent with ranking.

(5) Increment 5-8: Not used

(6) Increment 9: This increment will include unbudgetable studies that are inconsistent with Administration policy, such as environmental infrastructure.

b. Construction (C): There will be no new starts for single purpose water supply projects. Should a multipurpose project with water supply as one of those purpose, be placed under construction and/or should a modification or reallocation of storage in an existing project occur, all costs allocated to the water supply feature will be repaid by the local sponsor prior to or during the period of construction.

(1) Increments 1-4: Not appropriate given no new starts.

(2) Increment 5-8: Not used.

(3) Increment 9: This increment will include unbudgetable projects that are inconsistent with Administration policy, such as environmental infrastructure.

c. Operation & Maintenance (O&M) for Work Category Codes 60811 and 61810: These 2-work category codes are applicable to, respectively, the operation and maintenance of specific water supply facilities. New starts are not applicable to funding for the operation and maintenance of specific water supply facilities.

WORK CATEGORY CODE: 60811 – Operations for Water Supply

WORK CATEGORY DESCRIPTION: Operation of Project Gates, Specific Water Supply Conduits, Permanent Operating Equipment, etc. for water supply features.

Work includes all costs for the operation; necessary materials, supplies, equipment and transportation costs associated with operations; associated hired labor and contract support; routine materials and supplies; and other costs: of project gates, specific water supply conduits and permanent operating equipment specifically for water supply. Prior to FY07, these costs were included in WCC 60210.

WORK CATEGORY CODE: 61810 - Maintenance for the Water Supply Function

WORK CATEGORY DESCRIPTION: Maintenance of Project Gates, Water Supply Conduits, Permanent Operating Equipment, etc. excluding dredging activities for water supply features.

Work includes all direct costs for the maintenance and repair, replacement, additions and efficiency improvements to, or retirement of; related costs for spare parts, replacements, additions, special tools, miscellaneous supplies and materials; government plant and hired labor for project maintenance and contract support, transportation costs and other costs required to perform this maintenance function; purchase of permanent operating equipment for non-Water Management activities: of project gates and specific water supply conduits; and permanent operating equipment. Prior to FY07, these costs were included in WCC 61211.

(1) Increment 1. Only critical routine and cyclical activities can be included in this increment. Routine activities are those that have been conducted every year for at least the last five years. Such activities are those required on a regular basis to operate and maintain specific water supply gates and conduits that are a part of the Federal project. Cyclical activities are similar activities that are required on a regularly, but not yearly basis. Increment must be performance based and integral with a study/project with high outputs and consistent with ranking.

(2) Increment 2. Only critical non-routine activities may be included in this increment. Critical non-routine activities are those that must be accomplished to insure project safety, and critical maintenance actions that are required to keep the project operating and delivering benefits. Non-routine activities are actions that are “project like” in that they are unique actions with a specific beginning and end. Examples of non-routine activities would be the replacement of a part of the specific water supply conduit. Each non-routine activity must be shown separately to allow individual funding decisions based on the performance metrics and must be shown in priority order by District and MSC Rank. Increment must be performance based and integral with a study/project with high outputs and consistent with ranking.

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(3) Increment 3. This increment includes critical operation and maintenance activities, both routine and non-routine, for the 25% above the minimal program level, that are defined by the state of the practice and are needed to sustain the expected future benefits of the project. Preparation of reports for Major maintenance (MM) and rehabilitation (MR) can be included in this increment. MM and MR activities must have approved reports before they can be included for implementation. Increment must be performance based and integral with a study/project with high outputs and consistent with ranking.

(4) Increment 4. This increment includes operation and maintenance activities, both routine and non-routine, that are defined by the state of the practice and are needed to sustain the expected future benefits of the project. In most cases, activities in this increment will support continuing the level of service that customers, stakeholders, and others have come to expect and depend-on for sustaining public safety and economic, environmental and social benefits. Multiple Increment 4 activities should be submitted that reflect the logical pieces of routine or non-routine activities beyond the 5 year average limit. Increment must be performance based and integral with a study/project with high outputs and consistent with ranking.

(5) Increment 5. Activities that have a high expected return on investment that enable greater levels of performance in future years should be included in this enhance or capability increment. Increment must be performance based and integral with a study/project with high outputs and constituent with ranking.

(6) Increment 6-9. Not used.

d. Operation and Maintenance for Water Supply Agreement Management for Work Category Code 60812: This work category code is for the development, renegotiation and billing and collection of water supply agreements to include the maintenance of the water supply module of the Operation and Maintenance Business Information Link (OMBIL). Funding for this item is primarily related to the number of projects in the district with M&I water supply and number of water supply agreements. Budget requests are to be reflected by the PY-2 Water Supply Database as reported in OMBIL and as shown in Table I-2. The number of agreements are to include activate future, supplemental and surplus water agreements as well as other "outlier" type of agreements such as those authorized by Section 931 of WRDA 1986 (Interim use of M&I for Irrigation).

WORK CATEGORY CODE: 60812 - Water Supply Agreements

WORK CATEGORY DESCRIPTION: Development and Renegotiation of Water Supply Agreements. Work includes all labor and associated costs involved in the development of new water supply agreements and for costs required for existing water supply agreements such as billings and collections including delinquencies, lawsuits and modifications and renegotiations of such agreements. Prior to FY07, these costs were included in WCC 60210.

Table I-2

2012 Water Supply Projects and Agreements

MSC	District	Number of Projects	Number of Agreements		MSC	District	Number of Projects	Number of Agreements
LRD	LRH	8	9		NWD	NWO	2	2
	LRL	11	16			NWS	1	1
	LRN	4	17			NWP	1	11
	LRP	5	3			NWK	13	24
MVD	MVR	1	1		SAD	SAW	4	7
	MVS	4	5			SAS	3	13
	MVK	3	8			SAM	3	5
NAD	NAE	3	3		SPD	SPA	1	1
	NAP	2	2			SPN	2	2
	NAB	3	3			SPK	1	1
					SWD	SWL	11	28
						SWF	23	72
						SWT	26	162

(1) Increment 1. For this increment the district may request up to \$5,000 for each project with municipal and industrial water supply storage space or surplus water allocations plus up to \$2,500 for each water supply agreement as defined in above paragraph d. Based on the 2012 water supply database of 135 projects and 396 agreements, the maximum USACE funding for Increment 1 is \$1,665,000.

(2) Increment 2. Cost to renew water supply agreements to include coordination efforts with sponsors. This effort should be scheduled for those agreements that will expire one year after the PY.

(3) Increment 3. Cost to renew water supply agreements to include coordination efforts with sponsors. This effort should be scheduled for those agreements that will expire in two years after the PY.

(4) Increment 4. For this increment the district may request an additional \$200 per agreement over and above what was requested in increment1. Rational for the need for this additional funding should be provided.

(5) Increment 5-9 not used.

e. Operation and Maintenance funded studies and surveys for the Water Supply Function:

WORK CATEGORY CODE: 60820 – Studies and Surveys for the Water Supply Function.

WORK CATEGORY CODE DESCRIPTION: Includes all costs to prepare new or continuing reports associated with the reallocation of an existing project purpose to water supply. This work category code is for studies and surveys for water supply and includes all costs to prepare reports associated with the water supply feature of the project including the Reconnaissance phase of reallocation studies. If additional authority is not required, funding to complete the reallocation remains in the O&M account. If additional authority is required funding is to be in the Investigation account (see above paragraph I-5.a.). Costs for reallocation studies must have letter from local sponsor requesting the study and a commitment

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to bear their share of the cost of the study. Other water supply related studies such as water supply oriented river basin studies, sedimentation studies, water availability studies, DSAC coordination activities, alternative water use studies, etc. are also to be covered under this funding code.

(1) Increment 1. This increment is applicable only to the studies included in the PY-1 budget. Do not include new study phases. Previously budgeted reallocation studies migrate to I after initial assessments (see Annex III). Increment must be performance based and integral with a study with high outputs consistent with ranking.

(2) Increment 2. This increment is for high profile studies such as those related to court judgments, commitments from members of the Administration, reallocation study completions, etc.

Increment must be performance based and integral with a study with high outputs consistent with ranking.

(3) Increment 3. This increment includes other water supply related studies of both routine and non-routine activities. Increment must be performance based and integral with a study with high outputs consistent with ranking.

(4) Increment 4. This increment includes studies of both routine and non-routine activities that are needed to sustain the expected future benefits of the projects such as sedimentation surveys. In most cases, activities in this increment will support continuing the level of service that customers, stakeholders and others have come to expect and depend on for sustaining public safety and economic, environmental and social benefits. Studies for multiple Increment 4 activities should be submitted that reflect the logical pieces of routine or non-routine activities beyond the 5 year average limit. Increment must be performance based and integral with a study with high outputs consistent with ranking.

(5) Increment 5. Studies of activities that have a high expected return on investment that enable greater levels of performance in future years should be included in this enhanced or capability Increment. Increment must be performance based and integrated with a study/project with high outputs and consistent with ranking.

(6) Increment 6-8: Not used.

(7) Increment 9: This increment will include unbudgetable studies that are inconsistent with Administration policy, such as environmental infrastructure.

I-6. PY Budget Ranking Criteria Matrix. Studies evaluating reallocation of storage space from other project purposes to municipal and industrial water supply that will otherwise increase revenues to the Treasury will be given priority for budgeting purposes. As such, all budget requests for water supply studies must be accompanied by the following set of criteria: "anticipated cost of the study versus the anticipated capital costs to be recovered" and "degree of local support" (little), (some) or (strong).

I-7. Civil Works Five-and Ten Year Development Plans. The purpose of the Civil Works Ten Year Development Plan is to present an overview of the funding required for the Civil Works program over a 10-year period. The Five Year Development Plan (FYDP), a standalone document will be based on a subset of the 10 year plan and will produce results that contribute to achievement of the strategic goals and objectives in the Civil Works Strategic Plan. See paragraph 12 in the MAIN part of this EC for additional information. This plan for the Water Supply Program focuses on labor and associated costs involved in the development of new water supply agreements; costs required for existing water supply agreements such as renegotiations and for billings and collections including delinquencies, law suits and modifications; as well as the costs associated with the operation and maintenance of specific water

supply features of the projects. Studies may be considered in accordance with the guidance of above paragraph I-5.

I-8. Special Considerations or Special Rating Criteria. The work category codes for water supply are described in Annex III. Phase codes are defined in TABLE 3 in the MAIN part of this EC. Districts will use P2 and the appropriate work category and phase codes to request funds for water supply activities for each project. These requests should be placed in the appropriate increment based on performance metrics. For joint activities on O&M multipurpose hydropower (Cat/Class 300) projects activities will be ranked in the Hydropower business line according to its criteria. All other joint activities – joint costs, including water supply related work on non-Cat/Class 300 projects will be included in the project's predominate business line. Additional instructions on Joint Activities – Joint Costs are contained in paragraphs Sub-Annex III-2.

I-9. Water Supply Business Line Budget Ranking Criteria Matrix. The data required for ranking the PY budget requests is shown in TABLE I-3.

TABLE I – 3

Budget Ranking Criteria Application Matrix Spreadsheet



TABLE I-3

ANNEX I

Investigations and MR&T Investigations

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SUB-ANNEX I-1

Investigations and MR&T Investigations

General

I-1-1. Applicability. This annex provides Program guidance and procedures for all activities in the Investigations (I) appropriation title and comparable ones from the Flood Control, Mississippi River and Tributaries (MR&T) appropriation title, where appropriate.

I-1-2. Transparency in the Budget Submission. Reference GAO report dated April 2, 2010, entitled: "Army Corps of Engineers: Budget Formulation Process Emphasizes Agency-wide Priorities, but Transparency of Budget Presentation Could be Improved" (GAO-10-453). The report addresses Congress' concern that they lack knowledge of the full level of funding resources available to studies/projects when making appropriation decisions on the PY budget request. Specifically, the GAO report supports Congress' claim that the Corps budget presentations (J-sheets) do not provide sufficient information on project "carry-in" funds to enable them to fully evaluate the project budget request. To satisfy Congress' need for full disclosure of study funding in the PY, the Investigation J-Sheets are modified to include estimated carry-in funds that will be available to help accomplish the PY study activities.

I-1-3. Organization and Structure. Sub-Annex I-2 includes all specifically programmed activities – reconnaissance and feasibility studies, restudies/reviews, and preconstruction engineering and design (PED). It provides guidance on feasibility studies and PEDs, including new starts and the Flood Control, Mississippi River and Tributaries counterparts. Sub-Annex I-3 covers all other activities funded by the Investigations appropriation title.

I-1-4. Definitions.

a. General. The following definitions are provided to assist in identifying studies to be included in the Investigations program budget submission.

(1) Navigation Studies. Navigation studies seek to provide safe, reliable, and efficient waterborne transportation systems (channels, harbors, and waterways) for movement of commerce, national security needs, and recreation.

(2) Flood Risk Management Studies. Studies that seek to reduce risk, including threat to life and flood damages, through the use of structural or non-structural measures. Structural measures include dams with reservoirs, dry dams, channelization measures, levees, walls, diversion channels, ice-control structures, and bridge modifications. Non-structural measures reduce flood damages without significantly altering the nature or extent of flooding by changing the use made of the flood plains, or by accommodating existing uses to the flood hazard. Non-structural measures are flood proofing, permanent relocation of structures, flood warning/preparedness systems, education and communication, and regulation of flood plain uses.

(3) Shoreline Risk Management Studies. Studies that seek to reduce risk, including threat to life and hurricane and storm damages caused by wind-generated and tide-generated waves and currents along the nation's ocean coasts, Gulf of Mexico, Great Lakes and estuary shores.

(4) Ecosystem Restoration Studies. Studies that seek to identify means to restore degraded ecosystem structure, function, and dynamic processes to a less degraded, more natural condition. This does not include actions normally considered to be remediation of hazardous material.

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(5) Watershed/Comprehensive Studies. Watershed studies are planning initiatives that have a multi-purpose and multi-objective scope and accommodate flexibility and collaboration in the planning process. Possible areas of investigation include flood risk management activities, ecosystem restoration, navigation, water supply, and recreation. Districts are encouraged to pursue these type studies. These studies:

(a) Require consideration about water resources development and management in the context of multiple purposes rather than single purposes, and, thus, facilitates the search for comprehensive and integrated solutions.

(b) Improve opportunities for public and private groups to identify and achieve common goals by unifying on-going efforts and leveraging resources.

(c) Identify a combination of recommended actions (Watershed Management Plan) to be undertaken by various partners and stakeholders in order to achieve local, tribal, regional, and national water resources management goals identified in the study and may or may not identify further budgetable Corps studies or implementation projects.

(d) Leverage resources, including cost shared collaboration, and integrate programs and activities within and among Civil Works programs, and with other Federal, tribal, state and non-governmental organizations, to improve consistency and cost effectiveness.

(6) Special Studies. Studies to be used only in special cases, where the survey or project has a National perspective and is not tied to one project purpose or business line. Most often these will be HQ funded items.

(7) Reconnaissance Phase Completion: The Reconnaissance phase ends with the execution of a Feasibility Cost Sharing Agreement (FCSA) or a report recommending no Federal action.

(8) Feasibility Phase Completion: The Feasibility phase ends on the date of the Division Engineer's transmittal of the final feasibility report to Headquarters.

(9) Preconstruction Engineering and Design (PED) Phase Completion: The PED phase ends after completing the first set of plans and specifications or when the Project Cooperation Agreement/Project Partnership Agreement is executed.

(10) New Phase: A cost-shared study or project is considered to be in a NEW PHASE once it has completed the current (funded) phase and is ready for budgeting in the follow-on phase (e.g., from Reconnaissance to Feasibility or Feasibility to PED). Thus, reference should be made to New Phase Feasibility Studies and New Phase PEDs and NOT refer to them as "New Starts".

(a) A value must be entered in the data field named "Phase Status" for every budget item (row) in P2 (OFA). The valid entries are New Start (NS), New Phase (NP), Continuing (CN), and Last Year of Phase (LY). For new Recon Studies, enter New Start (NS) in this column.

(b) If a study is completing one phase and starting a new phase in the PY (e.g., finish Feas and start PED), each should be a separate entry with the ending study labeled LY and the new phase NP.

(11) New Start: Previously unfunded by the Investigations account.

(12) Resumption: Previously funded phase not funded or budgeted in PY-1, PY-2 or PY-3.

(13) Continuing: Neither a New Start or Resumption.

b. Increments. Investigation Increments (for studies, and pre-construction engineering and design of specifically authorized and MR&T investigations) are defined as follows:

(1) Increment 1. This increment will include only the minimum continuing and new study activities and the total request is limited to the budget amount for PY-1, by study. Do not include new PED or study phases. If a study is ready for changing phases or is no longer likely to produce a high performing project, then the Increment 1 level for that study will be zero. Increment must be performance based and integral with a study/project with high outputs and consistent with ranking.

(2) Increment 2. New phases of studies previously budgeted may be initiated in this increment. Studies that do not have an Increment 1 may reflect the study activities in Increment 2. Studies that have a high probability of recommending a project with high value output may include additional activities in this increment that will provide improvement to the study completion compared to the items submitted in increment 1. Increment must be performance based and integral with a study/project with high outputs and consistent with ranking.

(3) Increment 3. This increment will include the activities needed to sustain (not fall behind/not accelerate) the study schedule included in the PMP. New starts and resumptions may be included. Increment must be performance based and integral with a study/project with high outputs and consistent with ranking.

(4) Increment 4. This increment includes additional capability activities that can be supported by cost sharing sponsor and Corps resources. This increment can be viewed as enhancing (or advancing) the study schedule at a faster pace than shown in the PMP. Increment must be performance based and integral with a study/project with high outputs and consistent with ranking.

(5) Increments 5-8. Not used.

(6) Increment 9. Place unbudgetable studies in this increment.

SUB-ANNEX I-2

Investigations and MR&T Investigations

Specifically Programmed Studies and Projects - New and Continuing

I-2-1. Performance Based Budget Increments.

a. Eligibility and Ranking criteria. To be considered for inclusion in the PY program, each study must meet the following criteria prior to applying the business line performance / ranking criteria:

(1) Reconnaissance studies and Preconstruction Engineering and Design.

(a) Be in accord with current policy

(b) Urgency of implementation of problem solution

(c) Have local support for continuation of activity

(d) Likely participation of non-Federal sponsor in implementation of solution

(e) Scheduled activity completion date

(f) Compliance with NEPA and other environmental regulations appropriate for effort.

(2) Feasibility Studies – be In accordance with the current feasibility study transformation initiative, unless specific approval to deviate from this guidance is received from HQUSACE, specifically:

(a) Have received appropriations (to include work plans) in FY 10, 11, or 12 or are in the FY13 Presidents Budget (NOTE: the use of the word “appropriations (to include work plans)” and “or” provides clarification to the original 8 Feb12 memo from the DCG.)

(b) Are classified “Active” or have been successfully reset.

(c) In the event a Feasibility Scoping Meeting is scheduled or conducted after 31 December 2011.

- Must have a scheduled completion date not to exceed three years.
- Scheduled cost does not exceed \$3 million.
- Be of reasonable report size (not to exceed 1 three inch binder).

(3) Priority will be given to previously funded studies and new start reconnaissance studies that can demonstrate high priority and high return

(4) Priority will be given to studies that support of our Strategic Infrastructure Strategy that is part of the Civil Works Transformation.

(5) Priority will be given to studies that are (5) scheduled to be completed within next two years (BY+2).

b. CECW Program. CECW will review the Investigations account for the Civil Works Program considering the national criteria in effect mid-summer PY-2 and applicable guidance from ASA(CW) and

OMB. CECW may increase or decrease the total for the Investigations program. Once the initial level is established, investment increments will be added in accordance with priorities in each business line.

I-2-2. Program Description and Procedure.

a. Project Development Process. In General, the development of each new project or separable element will adhere to the standard project development process. For specifically authorized studies and projects the emphasis is on maintaining continuity in the workflow once a new start decision has been made. In general, there are two main new start decision points for all Army proposed cost-shared projects, initiation of the reconnaissance phase study and project construction. However, Preconstruction Engineering and Design (PED) studies may not be budgeted before review and approval of the Feasibility Report by the ASA(CW). If any feasibility study (other than for inland waterways) was not subject to efficiencies and controls of cost-sharing, a new start review and approval will be needed for PED. Likewise, a new start decision will be needed for a feasibility study being initiated after an O&M funded appraisal without an intervening reconnaissance new start decision.

(1) Studies. There will be a two-phased study leading to a feasibility report in accordance with sections 905 and 105 of the Water Resources Development Act (WRDA) of 1986, as amended. A feasibility report is needed to support environmental compliance, policy review, engineering and design, and a project partnership agreement (PPA). A feasibility report will be prepared even in those instances where the project or separable element is authorized or funded for construction before completion of the feasibility report. The feasibility phase will be carried out under a cost shared feasibility cost sharing agreement (FCSA), except for feasibility studies carried out before WRDA 1986 took effect, feasibility studies for inland waterway projects, and studies to dispose of or reduce costs at existing Federal projects.

(2) Review of Completed Projects. A reconnaissance and then a feasibility phase at 50-50 cost sharing will be required for all studies, including studies of reconstruction projects, unless the sole purpose of study is to dispose of a Federal project or reduce Federal expenses (i.e., disposal or turn over to local interests lock and dam projects with little or no commercial traffic). In this case the funding will be 100% Federal. For studies utilizing the "Review of Completed Projects" (Section 216) authority there must be an initial appraisal or reconnaissance report prepared using O&M funds under Inspection of Completed Works or individual projects prior to recommending a new start (reconnaissance or feasibility depending on the depth of study under O&M) under the Investigations Program. The initial appraisal or reconnaissance report prepared under the O&M program should be limited to an expenditure of \$20,000. If more than \$20,000 is required, approval should be requested from CECW-I, including sufficient information to justify the additional expenditure. Review of an operating Corps project may provide an effective mechanism for evaluating problems and opportunities in a watershed context. In such cases, the initial appraisal would be the vehicle for determining whether the project meets current day needs as well as identifying key stakeholders for participation in the subsequent feasibility process. The studies/projects programmed in accordance with this paragraph should utilize the appropriate Category/Class/Subclass (CCS) that correlates with the Business Line.

(3) Watershed Assessments. Watershed assessments are conducted in accordance with Section 729 of the Water Resources Development Act of 1986, as amended, and lead to a Watershed Management Plan. An initial assessment, comparable to a reconnaissance study, is conducted at full Federal funding. This is followed by a Final Watershed Assessment leading to a Watershed Management Plan. The Final Watershed Assessment is cost-shared 75% Federal and 25% non-Federal. All of the non-Federal share may be in-kind.

(4) Preconstruction Engineering and Design (PED). PED begins with issuance of the Division Engineer's Transmittal Letter of the final feasibility report. As soon as practicable after funds for PED are received, a design agreement will be executed. A design agreement will be executed even in those

instances where the first funds received for PED are Construction or MR&T Construction funds. Activities carried out prior to execution of the design agreement will be limited to those necessary for negotiation, processing, and execution of the design agreement, or not to exceed \$100,000. The design agreement will provide for concurrent financing of design 75 percent Federal and 25 percent non-Federal. The design agreement will be in effect until execution of the applicable PPA. When construction is initiated, the design costs will be folded into total project costs and the Federal and non-Federal shares will be brought into balance in accordance with the cost sharing in the applicable PPA. A design agreement is not required for the following: an inland waterway project; a dam safety assurance, seepage correction, or static instability correction project; a replacement project; deficiency correction at a Federally operated project; or a project or separable element for which the non-Federally financed portion of engineering and design during construction costs alone would exceed the total non-Federal cash share for the project or element, the non-Federal share is reduced under ability to pay rules, or PED was initiated prior to FY 97. A design agreement also is not required (may be skipped) if Construction or MR&T Construction funds have been received and total PED costs funded from all accounts and preceding planned execution of the PPA are estimated to be less than \$100,000, assuming no delay in technical PED activities. If funds for construction have not been received or the MSC believes that the \$100,000 limit will be exceeded unless PED activities are delayed, it should require the District to execute a design agreement.

(5) Budgeting. All studies and all post-feasibility, pre-PPA engineering and design activities for new projects and separable elements that are consistent with policy will be budgeted as studies and PED, respectively, in the Investigations account or the study/design portion of the Flood Control, Mississippi River and Tributaries (MR&T) account. However, post-feasibility, pre-PPA engineering and design may be budgeted as construction in the Construction account or the construction portion of the MR&T account if the applicable project or element as authorized is supported by the Administration for construction, and either is budgeted as a new start or has received construction appropriations.

(6) Post-Feasibility Modifications. Once the feasibility report has been completed for a project, additional engineering and design, economic and environmental analyses, and evaluations often result in the identification of potential project modifications. Each potential modification that is identified (whether during PED or construction) should be subjected to a reconnaissance-level examination to determine whether the modification changes, or would change, project scope or functions beyond the scope and functions described in the completed feasibility report, to the extent that it required, or would require, additional authorization beyond the current authorization or the authorization contemplated in the completed feasibility report.

(a) Examination and documentation of a simple cost increase without a change in scope or functions may be undertaken as part of PED or construction. If additional authorization is required as a consequence of the simple cost increase, a Post-Authorization Change Report should be prepared.

(b) Examination and documentation of design changes that would not require additional authorization may be undertaken as part of PED or construction. However, if such design changes are material changes to the basic project features or output levels and the original project already is covered by a PCA/PPA, design of the material changes should be undertaken under a design agreement, and construction of the material changes should not be commenced until the PCA/PPA has been amended to reference an approved decision document that incorporates the material changes.

(c) A modification that required or would require authorization beyond the current authorization or the authorization contemplated in the completed feasibility report, and that extends, expands, or adds functions to the original project described in the completed feasibility report, is beyond the scope of the original project. If such an added function is physically integral to the original project, the modification will be treated as a substitute plan and, if the substitute plan is pursued, work on the original project will be suspended, then concluded in an orderly manner. An extension, expansion, or physically separable added

function will be treated as a new project if it is unauthorized or is separately authorized, or it will be treated as a new separable element if it is authorized as a modification to the original project. Following the reconnaissance-level examination, the substitute plan, new project, or new separable element will be developed in accordance with the standard project development process discussed above, beginning with its own feasibility study, even in circumstances where it becomes authorized in the meantime without benefit of the feasibility study being completed.

(d) The development of a new project (including a substitute plan) or a new separable element will not be included in the cost of PED or construction for the original project, and should be budgeted in the Investigations account or the MR&T I sub-account. However, once the feasibility report for a new separable element has been completed, the new separable element may be included in PED for the project along with PED for other separable elements.

b. Feasibility Studies - Eligibility and Selection for Funding. This encompasses all studies, Federally funded and cost-shared, and new starts for reconnaissance phase studies. Cost sharing is not applicable to single purpose inland navigation studies on the nations inland waterways system in accordance with ER 1105-2-100, paragraph 2-12.b.(4).

(1) New Starts.

(a) Authorized Feasibility Studies. All active authorized feasibility studies are considered new starts if they have not received an initial Investigations account work allowance and are eligible for funding based on their justification or (1) was not included in the PY-1 Program or was not funded in the conference report which accompanied the PY-1 appropriation act and (2) was not funded in the conference report which accompanied the PY-2 appropriation act (Resumption). The needs to be addressed should be of broad national scope and significance and should include at least one of the following: commercial navigation; inland navigation; flood or hurricane and storm risk management; ecosystem restoration, and reallocation of existing storage or addition of storage to an existing project that would increase vendible outputs where there is no construction cost to the Federal government. Final selection for inclusion in the program will require justification on the specifics and history of the need or problem and evaluation of the extent to which the proposed effort meets the appropriate business line performance and ranking criteria. The justification should be able to demonstrate the urgency for funding of the reconnaissance phase in the PY. In addition, based on recent expression of community interest, the Division Commander should believe there is a potential sponsor for the feasibility phase, one who understands the two-phase process and who would be willing to participate. Feasibility studies resulting from an approved 905b reconnaissance report and a certified reconnaissance phase may be budgeted as "spinoff" feasibility studies; however, they must have been clearly identified in the certified reconnaissance report to be included in the budget. When a certified reconnaissance phase identifies more than one "spin-off" feasibility study, one of those feasibility studies may carry the same PWI number as the parent reconnaissance study. Each additional "spin-off" study will be given a new PWI number and each one must be budgeted separately. Normal feasibility cost-sharing rules apply. Justification sheets should identify the original 905b authorization for continuity and to provide an audit trail. "Spin-off" feasibility studies should be clearly identified in the parent reconnaissance phase. Studies not clearly identified in the reconnaissance phase may not be considered continuing studies and will require a new start decision. Funds to initiate a new reconnaissance study will be issued with initial FY work allowances; however, the 12-month reconnaissance phase will be measured from the date of initial obligation of funds. Proposals for new Reviews of Completed projects must be accompanied by the completed initial appraisal or reconnaissance report prepared with O&M funds.

(b) Watershed Assessments. Watershed studies may take the form of watershed assessments in accordance with Section 729 of WRDA 1986, as amended, leading to a Watershed Management Plan or feasibility studies in a watershed context, using 50-50 cost-sharing. In either case, the reconnaissance

study would be fully Federally funded. Watershed assessments conducted under the authority of Section 729 of WRDA 1986, as amended, will compete as new phases. Selection will be based on how well the proposed assessments meet the key attributes of a watershed assessment. The initial assessment is comparable to a reconnaissance study and will be accomplished at 100% Federal cost. In accordance with Section 729, as amended, the cost sharing of the final watershed assessment will be 75% Federal and 25% non-Federal. All of the non-Federal share may be in-kind. The final watershed assessment will result in a watershed management plan. Specific criteria for distinguishing between watershed assessments and feasibility studies in a watershed context are included in the guidance for the flood, navigation and ecosystem restoration business lines. Watershed assessments should be submitted in the business line most appropriate to the specific problems and opportunities they address.

(2) Continuing. All active authorized continuously funded studies or previously funded cost shared studies are subject to the current feasibility transformation initiative reflected in paragraph I-2-1.a.(2) above. In addition, the study must address at least one of the needs of commercial navigation, flood or hurricane and storm risk management, or ecosystem restoration.

(a) Preconstruction Engineering and Design (PED). PED is concurrently financed with non-Federal sponsors. Sponsors must assure that they understand and are ready to sign a design agreement and have funds available to finance the PED portion of the design of a project. PED will ultimately be cost shared at the rate for the project to be constructed but will be initially financed through the PED period at 25% non-Federal. Any adjustments that may be necessary to bring the non-Federal contribution in line with the project cost sharing will be accomplished in the first year of construction. There are four programs of PED.

(b) PED Under the Concepts of Two-phase and Cost-shared Planning. PED that are justified and result from cost shared studies conducted under the two phase procedures will be programmed and justified as a new phase. Subject to the availability of funding, initial funding will be programmed for the fiscal year after the feasibility report with engineering annex is completed. Initial PED funding may be programmed to provide seamless funding of PED following the Division Engineer's Transmittal Letter of the final feasibility report. Funding to complete Feasibility and funding to initiate PED may be requested in the same FY. A non-Federal sponsor must be ready to contribute 25% of the PED cost during PED by stating their readiness to sign a design agreement. The PED estimate will include the cost of all engineering efforts (including inflation through the PED period) that are necessary to ready the project for construction, including in most cases the plans and specifications for the first significant contract. Only justified PED efforts funded in the prior FY will be considered continuing.

(c) PED for Projects Authorized for Planning and Engineering Only. PED for projects authorized for planning and engineering by the Water Resources Development Act of 1986 are included in this group. These projects will be Programmed for initiation of PED only after new start selection by ASA(CW) and concurrence by OMB. By definition, the planning and engineering phase will include all work required to submit a feasibility report with engineering annex, and will be cost shared 50/50 with a non-Federal sponsor. In accordance with Section 301 of Water Resources Development Act of 1990, if the sponsor provides 50 percent of the cost of the feasibility study the design phase will be treated as cost of construction. The design phase will include all work after the feasibility phase, including the Design Documentation Report (DDR) and plans and specifications for the first significant contract, and will be cost shared according to project purpose. Normally, there will be no reconnaissance phase for these projects. The PED estimate will include the cost of all engineering efforts (including inflation through the PED period) that are necessary to ready the project for construction.

(d) PED for Inland Navigation Projects. PED for inland navigation projects will be programmed at the 100% Federally funded level.

(e) Other PED - Eligibility and Selection Criteria. PED for projects which are not adequately described by the preceding subparagraphs of section I-2-2.b.(2) (a-d). These projects will have to compete for new start status and will not be included in a program request as a new start unless specifically approved by the ASA(CW) and concurred in by the OMB and a non-Federal sponsor is ready to contribute 25% of the PED cost during PED by stating their readiness to sign a design agreement. The PED estimate will include the cost of all engineering efforts (including inflation through the PED period) that are necessary to ready the project for construction, including in most cases the plans and specifications for the first significant contract. New Starts must meet the following selection criteria:

- A Division Engineer Transmittal Letter recommending the project will be issued by June of the PY, or the project was authorized for planning and engineering only by the Water Resources Development Act of 1986 and;
- The project has net economic benefits at the current interest rate, or ecosystem restoration benefits that exceed the cost and;
- The primary project outputs are commercial navigation, inland navigation; flood or hurricane and storm risk management; or aquatic ecosystem restoration and;
- There is no major irresolvable controversy or issue and;
- There is an identified and willing sponsor who understands and has the ability to finance PED at the 25% rate and has the ability to finance the items of local cooperation for construction.
- The project is in compliance with applicable environmental statutes appropriate to the current stage.
- An Environmental Assessment/Finding of No Significant Impact has been signed, or final EIS has been filed, or final EIS supplement is scheduled for filing with EPA by August of the PY-2.
- Prioritization will be based on the criteria for the appropriate business line as discussed in Appendices A-I.

(f) Continuing projects. Continuing projects may be included if the following are met:

- There is a strong probability of implementing a solution and;
- The activity meets all criteria under Ranking Criteria, subparagraph I-2-1 (a) above.

c. Approval of Post-authorization Documents. MSCs have approval authority for post-authorization documents that are certified as being in accordance with law and policy for projects not requiring a Washington-level decision or additional congressional authorization. Decision documents for projects not in accordance with policy or those requiring action by the Chief of Engineers or ASA(CW), or requiring additional congressional authorization, must be submitted to HQUSACE.

I-2-3. Program Considerations.

a. Study and PED cost estimates. Study and PED cost estimates are to include an allowance for inflation in accordance with the instruction of paragraph 13. in the MAIN section of this EC. The construction project cost estimated displayed in the justification sheet will be based on 1 October of the PY-1 price level. (Do not include an allowance for inflation through the construction period).

b. Annual funding requests. Annual funding requests for new reconnaissance phase studies are to be only for the amount required to carry out the anticipated activities during that FY.

c. Submissions for funding. Submissions for funding of continuing studies and projects not included in the PY-1 program request must be accompanied by a supplemental (see paragraph I-2-4.a.) justification statement describing the changed conditions that now warrant inclusion of the study/project in the PY request.

I-2-4. Submission Requirements.

a. Justification Statements.

(1) Schedule. See TABLE 2 in the Main section of this EC for the due dates for justification materials for new starts, continuing work, revisions to justification materials, and final justification materials for submittal to Congress.

(2) Supporting data. Each study or project that has a funding requirement in the PY (both new and continuing) will have of a Justification Sheet, two part where necessary. See Illustrations I-2.1 through I-2.4 for format and content for reconnaissance phase, feasibility phase (cost shared), continuing surveys (full Federal expense), and PED J-sheets. A second page is required when funds are being requested to continue a study or project not included in PY-1 program or appropriations but proposed for funding in the PY program. The second page is to be used to provide any additional information or expansion of data more appropriately classified as supporting data not appropriate for inclusion in the congressional justification, but may be necessary for proper and complete consideration for inclusion in the President's Program.

b. P-2. All studies and projects, including new starts, will be coded into the P-2 system as discussed in the MAIN part of this EC. A feasibility study will use the same P-2 Project ID number as the reconnaissance study when there is only one feasibility study as a result of the reconnaissance, however, the feasibility will use a separate CW Type of Funds (ccs) identifying the phase and project purpose associated with that level of work. In the situation where more than one feasibility study results from a reconnaissance study, then a new system generated Project ID number will be provided from P-2. In addition, a PED project will use the same P-2 Project ID number as the feasibility study when there is only one project coming out of the parent study.

ILLUSTRATION I-2.1

Reconnaissance Phase Study

APPROPRIATION TITLE: Investigations, Fiscal Year (PY)

Study	Total Estimated Federal Cost \$	Allocation Prior to FY (PY-1) \$	Allocation FY (PY-1) \$	Budget Amount FY (PY) \$	Additional to Complete After FY (PY) \$
SURVEYS – NEW / CONTINUING (Insert Type)					
Study Name	100,000	0	0	100,000 1/	0

EFG District

Furnish a brief description of the study area, water resource development problems, and principle purposes of the study. For example, for flood risk management studies any information available on recent flood history (dates, physical and dollar losses, etc), or for navigation studies include information on use (commercial vs. recreation) cargo types and quantities if known. For ecosystem restoration studies, include information that addresses the performance components in Appendix B (do not enter the scores) and information about the physical area involved.. For all purposes, provide any pertinent information concerning coordination with Federal and state resource agencies.. Identify relationship to other project purposes if appropriate. Do not include irrelevant data such as "mild summers or harsh winters"; do include all the data that would tell why this study should be selected out of the many recommended. Also cite any matters known to be of concern to the Congress and identify the tentative local sponsor who has indicated intent to share equally in the feasibility phase cost that may follow the reconnaissance study. (There may be multiple sponsors for watershed and multi-purpose studies) Describe briefly the general scope and key areas of concern that are to be addressed in the reconnaissance study, probable solutions if this type of information is available, and the work to be performed in the program year. This paragraph should present specific arguments and evidence that it is important to initiate the study in the program year and similar evidence that makes it clear that the study and its anticipated outputs are in accord with Administration policy. It is acceptable to budget for reconnaissance studies that exceed \$100,000. The Justification sheet should state the date of CECW-P or RIT approval if it shows a cost above \$100K or a schedule beyond 12 months.

Cite study authority. (In the event that sufficient study authority is not available to accomplish study purpose it should be so noted and a request for appropriate authority must be in progress).

Division:

District

Study name:

1/ Estimated Unobligated "Carry-in" Funding: As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into the Program Year (PY) from prior appropriations for use on this study / project effort is \$_____. This amount, together with the Budget Amount shown above, will be used to perform work on the PY study / project as follows: (provide a brief description of how the unobligated carry-in funds will be used here).

FILL-IN THE FOLLOWING AS NEEDED:

\$_____ rescinded from the project in _____(FY).

\$_____ transferred to the Flood Control and Coastal Emergencies (FCCE) account in _____(FY)..

(FOR ILLUSTRATION PURPOSES ONLY)

ILLUSTRATION I-2.2

Cost-shared Feasibility Study

APPROPRIATION TITLE: Investigations, Fiscal Year (PY)

Study	Total Estimated Federal Cost	Allocation Prior to FY (PY-3)	Allocation FY (PY-3)	Allocation FY (PY-2)	Allocation FY (PY-1)	Budget Amount (PY)	Additional to Complete After FY(PY)
	\$	\$	\$	\$	\$	\$	\$
ABCD River & Tributaries, Nothing Wash	1,200,000	170,000	150,000	200,000	130,000	200,000	1/ 350,000

EFG District

Furnish a brief description of the study area, water resource development problems, and principle purposes of the study. For example, for flood risk management studies any information available on recent flood history (dates, physical and dollar losses, etc), or for navigation studies include information on use (commercial vs. recreation) cargo types and quantities if known. For ecosystem restoration studies address the approximate area to be restored to the extent this is known. For all purposes, address the performance criteria for the purpose as described in Appendices A-I. For ecosystem restoration studies do not enter the performance component scores, instead provide data reflecting the basis for the scores. Do not include irrelevant data such as "mild summers or harsh winters"; do include all the data that would tell why this study should be selected out of the many recommended. Also cite any matters known to be of concern to the Congress. Describe briefly the general scope and key areas of concern that were or are being addressed in the reconnaissance study, probable solutions, and the work to be performed in the Program year. This paragraph should present specific arguments and evidence that it is important to fund the study in the Program year and similar evidence that makes it clear that the study and its anticipated outputs are in accord with Administration policy. Provide best available sponsor information. (Name of potential or actual sponsor, dates of verbal or written commitments, scheduled or actual FCSA signing.)

Fiscal Year PY-1 funds are being used to fully fund the reconnaissance phase at full Federal expense. If the reconnaissance report is certified to be in accord with policy, the funds requested for Fiscal Year (PY) plus any carry-in funds will be used to continue into the feasibility phase of the study. The preliminary estimated cost of the feasibility phase is \$2,200,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. Where Independent External Review is conducted, the \$ amount for the IEPR should be stated and the description should note that it is an exception to the 50-50 cost share. A summary of study cost sharing is as follows:

Total Estimated Study Cost	\$2,300,000
Reconnaissance Phase (Federal)	100,000
Feasibility Phase (Federal)	1,100,000
Feasibility Phase (Non-Federal)	1,100,000

Division:

District:

Study Name:

Cite study authority. (In the event that sufficient study authority is not available to accomplish study purpose it should be so noted and a request for appropriate authority must be in progress).

The reconnaissance phase is scheduled for completion in September (Month and Year) (Date of signing of FCSA). The feasibility study is scheduled for completion in (Month and Year) (Date of Division Engineer's Transmittal Letter).

1/ Estimated Unobligated "Carry-in" Funding: As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into the Program Year (PY) from prior appropriations for use on this study / project effort is \$_____. This amount, together with the Budget Amount shown above, will be used to perform work on the PY study / project as follows: (provide a brief description of how the unobligated carry-in funds will be used here).

FILL-IN THE FOLLOWING AS NEEDED:

\$_____ rescinded from the project in _____(FY).

\$_____ transferred to the Flood Control and Coastal Emergencies (FCCE) account in _____(FY)..

ILLUSTRATION I-2.3

Full Federal Expense Feasibility Study

APPROPRIATION TITLE: Investigations, Fiscal Year (PY)

Study	Total Estimated Federal Cost \$	Allocation Prior to FY (PY-3) \$	Allocation FY (PY-3) \$	Allocation FY (PY-2) \$	Allocation FY (PY-1) \$	Budget Amount (PY) \$	Additional to Complete After FY(PY) \$
XYX River Basin	750,000	100,000	100,000	200,000	100,000	200,000 1/	50,000

EFG District

This paragraph should describe the study area, the navigation problems and potential solutions. Results of the study to date should be covered as well as information that conveys to the reviewer (Corps, Army, OMB, or Congress) that the study and its anticipated outputs are in accord with Administration priorities.

This paragraph is to be used to describe the activities to be undertaken during the PY-1. The activities pertaining to each interim are to be clearly described.

This third paragraph is to be used to describe the activities to be undertaken in the PY.

This final paragraph will set forth the schedule for the study including completion dates (month and year) (date of Division Engineer's Transmittal Letter for each interim and the overall study).

Cite study authority. (In the event that sufficient study authority is not available to accomplish study purpose it should be so noted and a request for appropriate authority must be in progress).

Division:

District:

Study Name:

1/ Estimated Unobligated "Carry-in" Funding: As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into the Program Year (PY) from prior appropriations for use on this study / project effort is \$_____. This amount, together with the Budget Amount shown above, will be used to perform work on the PY study / project as follows: (provide a brief description of how the unobligated carry-in funds will be used here).

FILL-IN THE FOLLOWING AS NEEDED:

\$_____ rescinded from the project in _____(FY).

\$_____ transferred to the Flood Control and Coastal Emergencies (FCCE) account in _____(FY)..

ILLUSTRATION I-2.4

Preconstruction Engineering and Design

APPROPRIATION TITLE: Investigations, Fiscal Year (PY)

Study	Total Estimated Federal Cost \$	Allocation Prior to FY (PY-3) \$	Allocation FY (PY-3) \$	Allocation FY (PY-2) \$	Allocation FY (PY-1) \$	Budget Amount (PY) \$	Additional to Complete After FY(PY) \$
PRECONSTRUCTION ENGINEERING AND DESIGN (PED) ACTIVITIES – (Type)							
XYX River Basin	1,000,000	300,000	150,000	200,000	150,000	300,000 1/	0
EFG District							

This is an example of the type of project description data to provide. For an ecosystem restoration project include area to be restored in acres, types of habitat, expected outputs and the data supporting the scores assigned for the performance components. Do not include the scores.

XWV River drains an area of about 2,114 square miles in southwest State and empties into Something Harbor. The XYZ flood plain encompasses about 1,560 acres of mostly urban development on the left bank of the XWV River. The maximum flood of record, that of December 1933, would have caused an estimated \$13.4 million damages to XYZ River under October (PY-1) prices and conditions of development. A feasibility report was completed in FY96. The recommended project, estimated to cost \$xx.x million with an estimated Federal cost of \$xx.xx million and an estimated non-Federal cost of \$xx.xx million, includes construction of a levee system to provide flood protection to 1,318 acres in XYZ. Pumping stations and gravity outlets with tide gates would be included to accommodate interior drainage. The average annual benefits amount to \$2.7 million, all for flood control. The benefit-cost ratio is 1.2 to 1 based upon the latest economic analysis dated (Month Year). Identify project sponsor and set forth latest evidence of support. (Sponsor's must assure that they understand and are ready to sign a design agreement and have funds available to finance the PED portion of the design of a project.) PED will ultimately be cost shared at the rate for the project to be constructed but will be financed through the PED period at 25% non-Federal. Any adjustments that may be necessary to bring the non-Federal contribution in line with the project cost sharing will be accomplished in the first year of construction.

Total Estimated Preconstruction

Engineering and Design Costs	\$1,333,000
Initial Federal Share	1,000,000
Initial Non-Federal Share	333,000

Total Estimated Preconstruction

Engineering and Design Costs	\$1,333,000
Ultimate Federal Share	xxx,000
Ultimate Non-Federal Share	xxx,000

Division:

District:

Study Name:

The project is authorized for construction by: (Cite the construction authorization and cost sharing requirements). Fiscal Year (PY-1) funds are being utilized to continue work on the Feature Design Memorandum, including economic studies. Fiscal Year (PY) funds and any carry-in funds will be used for completion of PED in (Month and Year).

1/ Estimated Unobligated "Carry-in" Funding: As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into the Program Year (PY) from prior appropriations for use on this study / project effort is \$_____. This amount, together with the Budget Amount shown above, will be used to perform work on the PY study / project as follows: (provide a brief description of how the unobligated carry-in funds will be used here).

FILL-IN THE FOLLOWING AS NEEDED:

\$_____ rescinded from the project in _____(FY).

\$_____ transferred to the Flood Control and Coastal Emergencies (FCCE) account in _____(FY)..

SUB-ANNEX I-3

Investigations

CECW Programmed Items

I-3-1. Program Procedure.

a. The activities covered by this sub-annex are programmed by CECW. You should assume your allowances will remain at or about the same level as PY-2 through PY+9 in preparing programming documents for the activities requiring Division response.

b. If a division is experiencing conditions that would materially affect its requirements for the activities covered, the Division Commander should submit a brief letter to HQUSACE, CECW-I outlining the changed conditions.

c. Note that there are three accounts that are similar, in that they provide the ability to respond to other entities without being either agency or project/study specific, but that serve different functions. They are Special Investigations, Interagency Water Resources Development, and Coordination with Other Water Resources Agencies. Special Investigations is for limited scope investigations, not for coordination. Interagency Water Resources Development is for coordination with others on problems that may lead to specific studies such as cost sharing or applicability of Corps programs to water resources problems. The Coordination with Other Water Resources Agencies account is for coordination with Planning Commissions, other Federal Water Resources Agencies or other entities which serve that function, on regional problems of a general nature not related to a programmed study or specific potential study. Some requests for assistance will not fit clearly into one of these three accounts, but you should be sure that, to the extent possible, such activities are programmed in the appropriate account and that activities in the three accounts are not duplicative.

I-3-2. Submission Requirements. Provide a breakdown by District for each activity listed in paragraph I-3-1, for PY-1 and PY in the format of Illustration I-3.1. The information should provide a base to develop allowances for varying program levels.

I-3-3. Special Investigations.

a. Program Objective. This category is for investigations of limited scope, in reply to requests from sources outside the Corps of Engineers, for information relating to unauthorized projects and other activities which have no funds, and which are not accomplished with a view toward determining whether a project can be developed. Also included is work specifically authorized by the Chief of Engineers; the review of reports and Environmental Impact Statements requested by other agencies, unless otherwise provided for; and attendance at meetings of local interests and other agencies during the preliminary stages of project investigations.

(1) The program objective specifically includes The Gulf of Mexico Program, which is an interagency effort for resolving complex environmental problems associated with man's use of the Gulf of Mexico. This program is limited to divisions and subordinate districts bordering on the Gulf of Mexico.

(2) The program objective specifically includes the Pacific Northwest Forest Case Study, which is an interagency program initiated by the White House's Council on Environmental Quality for ecosystem management of the public lands within the range of the Northern Spotted Owl.

(3) The program objective specifically includes the Chesapeake Bay program, which is an interagency program initiated by the U.S. Environmental Protection Agency, for the protection and restoration of the bay's natural resources. Work which requires Section 510 of the Water Resources Development Act of 1996 authorization is subject to the cost sharing of that authorization.

b. Narrative Paragraph Submission. A narrative paragraph should be submitted which describes specific investigations, studies, or tasks accomplished under this activity for the PY-3 and PY-2 to date in the format of Illustration I-3.2.

I-3-4. FERC Licensing Activities.

a. Program Objective. The objective of the Federal Energy Regulatory Commission licensing activities is to provide timely review of FERC license and permit applications consistent with regional and national priorities. Review is accomplished on a first come-first served basis.

b. Eligibility. License or permit applications are eligible for consideration if they are for new or existing non-Corps operated facilities. Review of license and permit applications which could have an effect on ongoing projects under construction or being operated by the Corps should be accomplished with available project funds.

I-3-5. Interagency Water Resources Development. The interagency water resources development program is for Corps of Engineers districts activities, not otherwise funded, that require coordination effort with non-Federal interests. These activities include such things as meeting with City, County and state officials to help them solve water resources problems when they have sought advice or to determine whether or not Corps programs are available and should be used to address the problems. The funds would also be used to cover costs of meeting with potential study sponsors prior to programming for study to insure they fully understand study cost sharing and to obtain an indication of their interest in participating in a future study. Funding for American Heritage River Navigators is included in this category and requirements for this effort should be separately noted and justified.

I-3-6. Interagency and International Support.

a. Program Objective. Authorized by Section 234 of the Water Resources Development Act of 1996, this program is for activities in support of other Federal agencies or international organizations to address problems of national significance to the United States.

b. Submission Requirements. An illustration I-3.6 titled: Interagency and International Support is required. Illustration I-3.6 is an information display with supporting narrative. The narrative should identify the work that would be pursued with the requested fund.

I-3-7. Coordination with Other Water Resources Agencies. Includes Department of Agriculture, Natural Resources Conservation Service; Department of Interior, Bureau of Reclamation; and Regional Planning Commissions and Committees Programs.

a. Program Objective. The objective of this program is to provide coordination with these agencies on water resources issues and problem areas of mutual concern that are general in nature and not part of a programmed project or study.

b. CalFed. The program objective specifically includes the CALFED Bay-Delta Program solution process for the development of a long -term comprehensive plan that will restore ecological health and improve water management for beneficial uses of the Bay-Delta system.

c. Lake Tahoe Federal Interagency Partnership. The program objective includes Corps participation in the partnership with other Federal Agencies, in accordance with Executive Order 13057 "Federal Actions in the Lake Tahoe Region", to insure cooperation, support and synergy.

I-3-8. Planning Assistance to States.

a. Program Objective. The Planning Assistance to States program is carried out in accordance with the provisions of Sec. 22, PL 93-251. This public law authorizes the Chief of Engineers to cooperate with States (Commonwealths, Territories, etc.) and Indian tribes in the preparation of plans for the development, utilization, and conservation of water and related land resources of drainage basins located within the boundaries of the state. This program has been amended by Section 2013 of the Water Resources Development Act of 2007 with implementation guidance reflected by the 11 Aug 2008 CECW-P/CECW-I Memorandum 'Implementation Guidance for Section 2013 of the Water Resources Development Act of 2007 (WRDA 2007) Relating to In-Kind Contributions and State Funding Limits for Planning Assistance to States Activities'. Until Implementation guidance is issued for the "Technical Assistance" provision that provides authority to enter into cooperative agreements with non-profits, budgeting for this provision is NOT allowed. Assistance is provided on the basis of State or tribe requests. When a state or tribe is served by more than one division, the Lead Division assigned in Exhibit G-12, ER 1105-2-100, has the responsibility for providing data on work requested by that state or tribe. The Lead Division may further delegate that responsibility to a Coordinating District, but that Coordinating District is responsible for coordinating not only with the State or tribe, but also with the other Districts doing work for that State or tribe.

b. Submission Requirements. Planning assistance is coordinated and scheduled to ensure the continuation and completion of ongoing work and the timely initiation of new work requested by the States and tribes. Lead Division offices should provide a prioritized listing of all work for states and tribes under their responsibility in the format of Illustration I-3.3. Illustration I-3.3 requests a listing of the PY-2 Study Accomplishments.

I-3-9. International Waters Studies.

a. Program Objective. This program contributes to better control, utilization, and orderly development of jointly - controlled water resources along the U.S. - Canadian boundary. It encompasses four boards and one committee established by the International Joint Commission (IJC) and in response to other U.S./Canadian cooperative efforts. IJC boards fall into two broad categories: boards of control, which are essentially permanent; and engineering or advisory boards, which are usually dissolved after completing their investigation.

b. Eligibility. Activities within the scope of authority of an appropriate Board or committee are eligible for funding.

c. Submission Requirements. An information display and supporting narrative as shown in Illustration I-3.4 is required.

I-3-10. Flood Plain Management Services (FPMS).

a. Program Objective. The Corps is authorized by Section 206 of the 1960 Flood Control Act, as amended, to provide information, technical assistance, and guidance, in identifying the magnitude of the flood hazard and for planning wise use of the flood plain including the consideration of non-structural measures. Direct response and assistance are provided through the FPMS program to

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states, Indian tribes and local governments without charge and to Federal agencies and private persons on a cost reimbursable basis.

b. **Submission Requirements.** An information table as shown in Illustration I-3.5 is required. FPMS funding requirements are to be shown for (1) District FPMS Units, (2) Quick Responses taking 10 minutes or less and provided without charge, (3) Technical Services, and (4) Special studies to include HES studies. In addition to the comprehensive Special Study numbers, a list of Study accomplishments completed in the PY is required. An estimated cumulative number of responses to requests will be shown for Quick Responses and Technical Services. Submit two versions of Illustration I-3.5; one for the PY-2 amount and another based on capability to meet demand from state, tribal and local governments. The funding requirements for Quick Responses should not exceed two percent of the PY-2 work allowance amount. Hurricane Evacuation Study (HES) funding will be allotted in the same manner as other MSC study allotments for this program. Full reimbursement should be required for assistance to Federal agencies and private persons. Information provided for Illustration I-3.5 should not exclude requirements for HES studies, but exclude all requirements for assistance to Federal agencies and private persons.

I-3-11. Hydrologic Studies.

a. **Program Objectives.** To collect and analyze basic data on hydrologic, climatologic, and river morphology for general use in connection with the Corps planning design, construction, and operation of water resource projects.

b. **Submission Requirements.** Provide a breakdown by District in the format of illustration I-3.1. Note that all activities in this class (260) should be defined and reported as follows:

(1) 261, Storm Studies. Includes Part I and II storm studies accomplished in coordination with National Weather Service.

(2) 262, General Hydrologic Studies. Includes generalized hydrologic analyses of rainfall - runoff relationship, flood frequency, snowmelt studies, hydrograph development and routing at selected watersheds, model calibrations in urban areas, and analyses of past floods and other studies of hydrologic nature.

(3) 263, Sedimentation Studies. Includes all non-project sedimentation investigation activities at the Waterways Experiment Station.

(4) 264, Streamflow and Rainfall Data Collection. This continuing program provides for installation and operation of streamflow and rainfall gages for general studies. It also provides for flood investigation activities such as investigation of hurricane surges; high water mark setting, measurement, and recordings; and rainfall bucket surveys.

I-3-12. National & International Water Resources Coordination. The national and international water resources coordination program is for Corps of Engineers activities, not otherwise funded, that require coordination effort with other agencies and governments. These activities include such things as meeting with officials to develop collaborative exchanges in complementary areas such as navigation, flood protection, coastal development, dredging and river basin management. The funds would be used to cover costs of meetings and to conduct workshops on water resource trends and decision points between the Corps and other organizations or governments. The Corps of Engineers signed a Memorandum of Agreement with the Dutch Rijkswaterstaat in May 2004 and this program would fund costs associated with sharing experiences between the two nations.

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ILLUSTRATION I-3.1

District Breakdown
(Code 901-171,172,173,175,176,177,178,181,186,240,250,260)
(\$K)

Division: _____

Tentative Allowance

Total
DIST.-A
DIST.-B
DIST.-C etc.

PY-1
PY

SPECIAL INVESTIGATIONS (AND)
GULF OF MEXICO PROGRAM (AND)
PACIFIC NORTHWEST FOREST CASE STUDY (AND)
CHESAPEAKE BAY PROGRAM (AND)
FERC LICENSING (AND)
INTERAGENCY WATER RESOURCES DEVELOPMENT (AND)
AMERICAN HERITAGE RIVER NAVIGATORS (AND)
INTERAGENCY AND INTERNATIONAL SUPPORT (AND)
COORDINATION WITH OTHER WATER RESOURCES AGENCIES (AND)
CALFED (AND)
LAKE TAHOE FEDERAL INTERAGENCY PARTNERSHIP (AND)
PLANNING ASSISTANCE TO STATES (AND)
INTERNATIONAL WATER STUDIES (AND)
FLOOD PLAIN MANAGEMENT SERVICES (AND)
HYDROLOGIC STUDIES
SUBCLASS
PY-1
PY

ILLUSTRATION I-3.2

Special Investigations Work Accomplished
(Code 901-171)

Division: _____

SPECIAL INVESTIGATIONS

DISTRICT	NARRATIVE DESCRIPTION
A	PY-3:
A	PY-2:
B	PY-3:
B	PY-2:
etc.	

FOR ILLUSTRATION PURPOSES ONLY
(To be typed as necessary)

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ILLUSTRATION I-3.3

Planning Assistance to States
(Code 901-186)
Program Year (PY) _____
Lead MSC ____

PY-2 Accomplishments

Study Name	State	Accomplishments
------------	-------	-----------------

FOR ILLUSTRATION PURPOSE ONLY
(To be typed as necessary)

ILLUSTRATION I-3.4

International Waters Studies
(Code 901-240)

Division: _____

Justification: Furnish a brief description of the Division/Districts activities and potential accomplishments relating to the functions of each board or committee. Include the associated program request for each board.

FOR ILLUSTRATION PURPOSE ONLY
(To be typed as necessary)

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ILLUSTRATION I-3.5

Flood Plain Management Services
(Code 901-250)

Division: _____

Work Item	Amount (\$000)	Total # Responses/Studies
District FPMS Units	N/A	
Quick Responses	(5% Max.)	(# of responses)
Technical Services		(# of responses)
Special Studies		(# of studies)

Studies that could complete in the PY

	Amount (\$000)
1.	
2.	
3.	

FOR ILLUSTRATION PURPOSES ONLY
(To be typed as necessary)

ILLUSTRATION I-3.6

Interagency and International Support

Division: _____

Justification: Furnish a brief description of the Division/Districts activities and potential accomplishments. Include the associated program funding request.

ANNEX II

Construction and MR&T Construction

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SUB-ANNEX II-1

Construction and MR&T Construction

General

II-1-1. Applicability. This annex provides guidance for preparation of the ten year request (PY through PY+9) for all new and continuing projects and programs funded by line item under the Construction (C) appropriation, including the Inland Waterways Trust Fund (IWTF) and Harbor Maintenance Trust Fund (HMTF), as applicable, and the Construction portion of the Mississippi River and Tributaries appropriation. Unless stated otherwise, any reference to the C (or I) appropriation applies to IWTF, HMTF and MR&T as well as C (or I). This annex does not address the Continuing Authorities Program or other CECW-developed Remaining Items.

II-1-2. Objective. The overall goal is to develop a 10 year construction program (PY through PY+9) consisting of projects that are cost effective, performance based (see Appendices I-VI) and complete as quickly as practicable within program constraints and consistent with current national priorities.

II-1-3. Transparency in the Budget Submission. Reference GAO report dated April 2, 2010, entitled: "Army Corps of Engineers: Budget Formulation Process Emphasizes Agency-wide Priorities, but Transparency of Budget Presentation Could be Improved" (GAO-10-453). The report addresses Congress' concern that they lack knowledge of the full level of funding resources available to studies/projects when making appropriation decisions on the PY budget request. Specifically, the GAO report supports Congress' claim that the Corps budget presentations (J-sheets) do not provide sufficient information on project "carry-in" funds to enable them to fully evaluate the project budget request. To satisfy Congress' need for full disclosure of project funding in the PY, the Construction J-sheets have been modified to include estimated carry-in funds that will be available to help accomplish the PY project activities.

SUB-ANNEX II-2

Construction and MR&T Construction

Construction (Except for Dam Safety Assurance, Seepage Control, and Static Instability Correction Projects)

II-2-1. Applicability. This Sub-Annex applies to projects and programs funded by line item for construction. For Dam Safety Assurance, Seepage Control, and Static Instability Correction projects see Sub-Annex II-3 except that the guidelines in II-2-2 below apply to all construction projects.

II-2-2. Army Budget Guidelines for Funding Construction Projects. To qualify, a project must be authorized for construction; have an approved Chief's report, major rehabilitation report, or Dam Safety modification report; and, where applicable, successfully completed review under Executive Order 12322. Funding guidelines are as follows:

- a. Project Purpose – Ongoing construction projects, including those funded in the Mississippi River and Tributaries account, are assigned based on their primary purpose to one of the following main mission areas of the Corps: flood risk management, commercial navigation, aquatic ecosystem restoration or hydropower.
- b. DSAC Projects -- Dam safety assurance, seepage control, and static instability correction projects that address a Dam Safety Action Classification (DSAC) I or II concern will receive the maximum level of funding for construction that the Corps can efficiently and effectively expend each year.
- c. New Starts – New start construction projects that have a benefit-to-cost ratio (BCR) of 2.5 to 1 or higher, calculated at a seven percent discount rate, are eligible for PY funding. Projects with a BCR below this threshold will not be funded unless they are eligible for funding under other criteria of these guidelines.
- d. Environmental Projects – Ongoing construction projects that restore degraded ecosystem structure, function, and process to a more natural condition are eligible for PY funding.
- e. Significant Risk to Human Safety – Flood risk management projects that are funded to address a significant risk to human safety will receive PY funding to support an uninterrupted effort.
- f. Resumptions – The resumption of work on a priority (high performing) construction project, will be eligible for PY funding.
- g. Mitigation, Treaties and Bi-Op Work – Mitigation work at ongoing construction projects, and work needed to comply with treaties or biological opinions, will be funded to meet those requirements in the PY.
- h. Non-structural Flood Risk Management Projects – Ongoing non-structural flood risk management projects will be eligible for PY funding if the project has a BCR of 1.0 to 1 or above, at a seven percent discount rate.
- i. Project Completions – Ongoing projects that can complete all remaining construction work during the budget year will be funded at the level needed to complete that work if the project has a BCR of 1.0 to 1 or above, at a seven percent discount rate.

II-2-3. Construction and MR&T Construction Increment Definitions.

a. Increment 1: This increment will include only the minimum project activities budgeted in, and continuing from, PY-1. Only needs under continuing contracts with the “True” or “Primary” (formerly “Special”) clause, and the EDC and S&A of contracts fully funded in PY-1 and before may be included in this increment. Do not include any contract requirements for contracts with the “Alternate” (formerly “Incremental Funding”) clause or other incrementally funded contracts such as base plus options. Do not include new contracts, options, or funding for EDC or S&A for new contracts. Only mandatory real estate activities for required project lands, easements and right-of-ways may be included. Increment 1 must be performance based and integral with a study/project with high outputs and consistent with ranking.

b. Increment 2: This increment will include continuing incrementally funded contract requirements for ongoing projects, associated EDC and S&A, new contracts, and associated EDC and S&A (show each significant activity separately). Real estate activities for required project lands, easements and right-of-ways may be included. Increment 2 must be performance based and integral with a study/project with high outputs and consistent with ranking.

c. Increment 3: This increment will include activities and contracts needed to sustain (not fall behind but not accelerate) the efficient project schedule based on the PMP. This increment may include projects that do not qualify for increment 2, and may include continuing incrementally funded contract requirements, associated EDC and S&A, new contracts, and associated EDC and S&A (show each significant activity separately). Real estate activities for required project lands, easements and right-of-ways may be included. New starts and resumptions may be included. Increment must be performance based and integral with a study/project with high outputs and consistent with ranking.

d. Increment 4: This increment will include additional capability activities that can be supported by the cost sharing sponsor and Corps resources and will advance the project schedule at a faster pace than shown in the PMP. Increment must be performance based and integral with a study/project with high outputs and consistent with ranking.

e. Increments 5-7: Not used.

f. Increment 8: This increment will include projects that are consistent with Administration policy but are unbudgetable due to the decision document not yet being cleared by the Administration.

g. Increment 9: This increment will include unbudgetable projects that are inconsistent with Administration policy, such as environmental infrastructure.

II-2-4. Specifically Authorized Projects and Elements.

a. Project Development Cycle. Each specifically authorized project is developed through the normal project development process, including reconnaissance, cost-shared feasibility, and preconstruction engineering and design (PED) concurrently financed under a design agreement. Requirements applicable to the normal project development process, including requirements related to design agreements and post-feasibility modifications, are described in ANNEX I and apply even if Construction or MR&T Construction funds are received before feasibility-level and PED work are completed.

b. Separable Element. A separable element is a portion of a project which is physically separable from other portions of the project, and which achieves hydrologic effects or produces physical or economic benefits which are separately identifiable from those produced by other portions of the project.

(1) If an investment increment is part of an authorized project, but is physically separable from other features of the authorized project and is not covered under the already-executed PPA or PPAs for the other features, that increment will be treated as a separable element.

(2) Reimbursable work that is beyond the scope of the work covered under the existing reimbursement PPA will be treated as a new separable element.

(3) If the project already has a cost sharing agreement, recreation facilities requiring a new cost sharing agreement will be treated as a new separable element.

II-2-5. Modifications to Completed Projects under Existing Authority.

a. Modifications under Continuing Authorities Program. Certain project modifications within project limits may be implemented through the Continuing Authorities Program. These include beneficial uses of dredged material, navigation mitigation, and environmental modifications.

b. Rehabilitation, Deficiency Correction, Biological Opinion, and Maintenance Dredged Material Disposal Facility (DMDF) Projects.

(1) Rehabilitation, deficiency correction, biological opinion, and maintenance DMDF projects may be carried out under the authority of the existing, authorized projects.

(2) Project Report Funding. The Evaluation Report or, in the case of a maintenance DMDF - the Dredged Material Management Plan (DMMP) - will be funded from O&M or MR&T (M) funds. In the case of a non-Federally operated and maintained project, Inspection of Completed Works funding may be used. Once the Evaluation Report (or DMMP) has been approved by HQUSACE or a MSC (if authority is delegated), planning, engineering, and design for construction will be funded from O&M or MR&T M funds until a Construction new start (see paragraph II-2-7) is included in the budget OR construction is specifically funded through appropriations. Note that maintenance DMDFs are not subject to new start requirements; see paragraph II-2-7.

(3) Rehabilitation Projects.

(a) Rehabilitation projects are projects to restore or ensure continuation of project functions or outputs. Section 205 of WRDA 92 defines "rehabilitation" with respect to inland waterway projects, as either: a) economically justified structural work for restoration of a major project feature that extends the life of the feature significantly and will take at least 2 years to complete, and that has a capital cost of at least \$8,000,000, adjusted for changes in price levels (reliability improvements); or b) structural modifications that enhance operational efficiency and that have a capital cost of at least \$1,000,000, adjusted for changes in price levels (efficiency improvements).

(b) **The definition in section 205 of WRDA 92 is applied by policy to all business programs.** For FY 14, the cost threshold is \$14,500,000 for reliability improvement projects and \$1,800,000 for efficiency improvement projects. Work below the cost thresholds is funded in the O&M or MR&T (M) account.

(c) Projects that involve replacing or recapitalizing the principal facility components that enable production of project outputs, e.g. turbines, generators, locks, or gates are considered rehabilitation projects.

(4) Deficiency Correction Projects. Design and construction deficiency projects remedy design and construction deficiencies under the following two circumstances: 1) at a non-Federally operated project constructed with Civil Works funds; and 2) at a Federally-operated project, where the cost of the remedy is \$5 million or more. Less costly remedies at Federally-operated projects are funded as part of project O&M. Deficiency correction projects are to remedy structural or performance deficiencies, not conditions caused by deferred non-Federal OMRR&R or changed hydrologic and hydraulic conditions.

See ER 1165-2-119.

(5) Biological Opinion Projects. These are efforts to avoid jeopardy of listed species at existing projects or systems. Currently there are two Biological Opinion projects budgeted: Columbia River and Missouri River. See Appendix C, page C-3-10 for further budget guidance.

(6) Maintenance DMDFs.

(a) A maintenance DMDF is a DMDF constructed to contain material from maintenance dredging of a completed project. A maintenance DMDF is cost shared as a General Navigation Feature, and is budgeted as a line item in the Construction or MR&T (C) account. A maintenance DMDF is budgeted using the same Program Code as that of the O&M for the completed project. In contrast, a DMDF constructed to contain material from construction dredging at a new harbor project is budgeted as part of the new harbor project.

(b) A dike raise or capacity expansion to contain maintenance material will be treated as a maintenance DMDF and budgeted in the Construction account as discussed above. By contrast, annual operations to manage existing facilities are funded in the O&M account. See Policy Guidance Letter 47.

(c) Use-fees paid to use non-Federal disposal facilities pursuant to section 217 of WRDA 1996, as amended, will be cost shared as DMDFs. The portion of the use-fees allocable to new capacity to contain material from maintenance dredging will be budgeted in the Construction or MR&T (C) account as a maintenance DMDF. The portion of the use-fees allocable to new capacity to contain material from construction of a new harbor project will be budgeted as part of the new harbor construction, and the portion of the use-fees allocable to O&M of the DMDF facility will be budgeted in the O&M account. See Policy Guidance Letter 47.

II-2-6. Modifications to Completed Projects under New Authority.

a. Reconstruction Projects. A reconstruction project will be treated as a new, specifically authorized project under paragraph II-2-4. Guidance on reconstruction of Corps structural Flood Damage Reduction projects for which non-Federal interests are responsible for OMRR&R is contained a memorandum from the Director of Civil Works dated August 16, 2005. This document provides a definition of reconstruction and distinguishes reconstruction from design or construction deficiencies. Congressional authorization is required to undertake reconstruction.

b. Project Modifications beyond Continuing Authorities Program Limits.

(1) Beneficial Use of Dredged Material. A beneficial use project may be implemented under the Continuing Authorities Program (section 204, as amended) if the project is of small scale. A project modification for beneficial use that is of a large scale and that is not implemented as part of a navigation construction project pursuant to the navigation project authorization or Section 207 of WRDA 1996 must be specifically authorized and will be treated as a separate project. See paragraph II-2-2.

(2) Navigation Mitigation. A navigation mitigation project may be implemented under the Continuing Authorities Program (section 111, as amended) if the Federal cost for the project is within the authorized cost limit of \$5 million. Navigation mitigation that exceeds this limit and that is not implemented as part of a navigation construction project pursuant to the navigation project authorization must be specifically authorized and will be treated as a separate project. See paragraph II-2-2.

(3) Environmental Modifications. Environmental modifications to a project may be implemented under the Continuing Authorities Program (section 1135, as amended) if the Federal cost for the project is within the authorized cost limit of \$5 million. An environmental modification that exceeds this limit and

that is not implemented as part of a construction project pursuant to the construction project authorization must be specifically authorized and will be treated as a separate project. See paragraph II-2-2.

II-2-7. Budgeting for New Construction. New construction includes new starts and resumptions.

a. New Start. A new start is one of the following that has not been funded previously in the Construction or MR&T Construction account. Note: A maintenance DMDF that has never been funded is not a new start; see paragraph II-2-8).

- (1) Physical construction of a specifically authorized project.
- (2) Physical construction of a specifically authorized project modification (reconstruction, beneficial use, navigation mitigation, or environmental modification).
- (3) Physical construction of a separable element of a previously funded, specifically authorized project.
- (4) Physical construction of a rehabilitation project, deficiency correction project, or biological opinion project.

b. Resumption of physical construction. A project is a resumption when: 1) the project was first funded for physical construction in PY-3 or before; and 2) the project has not been under physical construction since PY-3 or before; and 3) the resumption of physical construction was not included in the President's budget for PY-1; and 4) the suspension of physical construction was not due to a natural pause such as for a levee lift or monitoring stage. Continuing planning, engineering, and design of a project to be resumed may be programmed as continuing work in the PY, but resumption of physical construction requires a new budget decision as new construction.

c. Eligibility Criteria.

(1) General. Potential new construction should meet the eligibility criteria shown on page II-2-8. Candidates ranking high using the performance measures shown in Appendices B thru I may be recommended.

(2) Decision Document. Each recommended new start or resumption requires a decision document to serve as the basis for selection for a PPA, with the exception of inland waterway construction or rehabilitation projects, and certain other projects. The requirement for a decision document can be satisfied by one of the following: 1) an approved feasibility report with engineering annex; 2) an approved General Reevaluation Report (GRR); 3) in some cases, an approved Post-Authorization Change Report (PACR); or 4) for certain rehabilitation or design or construction deficiency correction projects, an approved evaluation report. NOTE: An Engineering Documentation Report (EDR) or Limited Reevaluation Report (LRR) is for updating and documenting changes to the project within the scope of a decision document and is not itself a decision document.

(3) Economic Analysis. A current economic analysis for each specifically authorized project, separable element, reconstruction project, rehabilitation project, or navigation mitigation project, or resumption thereof, that produces economic outputs and is proposed as new construction must be in accordance with paragraph 14 of the MAIN part of this EC. This analysis will be included in an approved decision document or in a supplemental report such as an EDR, LRR, PAC, or other special study report which must be approved at the appropriate level. A Design Documentation Report (DDR) is a technical document approved by a District and should not include information such as formulation of alternatives or economic analyses. After construction funds have been appropriated for such work, no further update of

the economic analysis will be required during the approval process for the non-Federal sponsor's financing plan and execution of the PPA provided the PPA is approved in the PY and no significant changes which may affect economic justification have been made from the latest approved document. The same current economic analysis requirements for PPA projects apply to non-PPA projects.

II-2-8. Budgeting for Continuing Construction.

a. Continuing construction includes the following:

(1) A project described in sections II-2-2 through II-2-4 that has previously been funded for construction, except in the case of a resumption.

(2) A maintenance DMDF, whether or not previously funded. A maintenance DMDF should be budgeted as needed for placement of material from maintenance dredging.

b. Economic Analysis. A current economic analysis for each continuing construction project that produces economic outputs must be approved in accordance with paragraph 14 of the MAIN part of this EC.

II-2-9. Cost Sharing. Preconstruction engineering and design costs are included in total project costs and cost shared, regardless of the account from which the preconstruction engineering and design costs were funded. Where a Project Partnership Agreement is required, once the agreement is signed, Federal and non-Federal funds must be obligated, and Federal funds will be programmed, such that cumulative obligations of Federal funds and cumulative obligations of non-Federal funds are in the proper proportion.

a. New Start Channels and Harbor Projects and Separable Elements. Cost sharing and financing provisions must be in accordance with Section 101 of WRDA 1986, as amended.

b. New Start Projects and Separable Elements for Flood Control or Other Specified Purposes. Cost sharing and financing provisions must be in accordance with Section 103 of WRDA 1986, as amended. For costs assigned to flood risk management, the minimum non-Federal share is 25 percent for projects authorized on or prior to 12 October 1996 (the date of WRDA 1996), the minimum non-Federal share is 35 percent for other projects, the maximum non-Federal share is 50 percent, and at least 5 percent of the costs must be in cash.

c. New Start Inland Waterways Projects and Separable Elements. Section 102 of WRDA 1986 authorizes 50 percent of the costs of new construction projects to be funded from the Inland Waterways Trust Fund, subject to appropriations. In addition, new projects authorized since 1986 have been specifically authorized to be funded at 50 percent from the Inland Waterways Trust Fund. Accordingly, specifically authorized inland waterway projects will be programmed so that cumulative obligations from the General Fund and cumulative obligations from the Inland Waterways Trust Fund are equal.

d. New Start Rehabilitation Projects. Rehabilitation projects will be cost shared in the same proportions as O&M costs. The exception is rehabilitations at inland waterway projects, which are authorized by WRDA 1986 to be cost-shared 50 percent from the Inland Waterways Trust Fund, subject to appropriations, and will be programmed so that cumulative obligations from the General Fund and cumulative obligations from the Inland Waterways Trust Fund are equal.

e. New Start Deficiency Correction Projects.

(1) At non-Federally operated and maintained projects, cost sharing and financing will be the same as for new projects, unless an exception is granted by ASA(CW) during the Evaluation Report review and approval process.

(2) At Corps of Engineers operated and maintained projects, no cost sharing is required unless a non-Federal sponsor has contributed toward the initial construction of the project. Payment may be required of public entities which have signed agreements with the Government, e.g. for water supply storage.

f. New Start Biological Opinion Projects. Cost shares for biological opinion projects are determined on a case-specific basis.

g. Maintenance DMDFs. Section 201 of WRDA 1996 amended Section 101 of WRDA 1986 to designate DMDFs a general navigation feature. Accordingly, the cost of construction of a maintenance DMDF will be shared at the same rate as the cost of construction of the harbor project with which it is associated, based on project depth.

h. New Start Reconstruction Projects. New reconstruction projects are cost shared in accordance with the project purpose(s) under WRDA 1986, as amended.

i. New Start Project Modifications beyond Continuing Authorities Program Limits.

(1) For separate beneficial use projects, the cost share is 65 percent Federal and 35 percent non-Federal of the incremental cost above the least cost method of dredged material placement consistent with engineering and environmental criteria.

(2) For separate navigation mitigation projects, the costs of mitigation are shared in the same proportion as the cost sharing provisions applicable to the project causing the shore damage. If the project provides storm damage reduction benefits over and above mitigation of damages from the navigation project, costs allocable to storm damage reduction are cost shared 65 percent Federal and 35 percent non-Federal.

(3) For separate environmental modifications, the cost share is 65 percent Federal and 35 percent non-Federal.

j. Resumptions.

(1) Projects initiated after-WRDA 1986 will be cost shared and financed in accordance with WRDA 1986, as amended.

(2) Cost sharing for projects initiated under pre-WRDA 1986 cost sharing will depend on the circumstances under which construction on the project was stopped. Generally, if it was at the request of, or due to action by local interests, cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, as amended, will apply. However, if the project was stopped by other parties, such as in the case of a court injunction, then the originally authorized cost sharing and financing requirements will apply.

TABLE II-2-1

New Construction
Basic Eligibility Criteria

1. The project or separable element is authorized for construction. No planning, engineering, design, or construction of unauthorized functions or features is proposed for construction funding.
2. An appropriate decision document has been approved and received Executive Branch concurrence, or is scheduled to be completed by 30 June of the PY-2, to be approved by 31 August of the PY-2, and to receive final Executive Branch action or concurrence by 31 August of the PY-2. For a project, separable element, specifically authorized modification, or reconstruction project with no previous, applicable Executive Branch position, OMB provides the necessary position. For a rehabilitation, deficiency correction, or biological opinion project, ASA(CW) provides the necessary concurrence during development of the Army's recommendations. If a project modification or cost sharing change was enacted after a favorable position was developed, a favorable position also must be developed on the enacted change.
3. PED is fully funded by the end of the PY-1 and the PPA is on schedule to be executed and the Financing Plan approved no later than the end of the PY.
4. The Project Manager has confirmed the sponsor's understanding of its contractual and financial commitments and its willingness and ability to meet the funding requirements of the construction schedule, including its proportional cash share of sunk and current costs.
5. The project is in compliance with the applicable environmental statutes, appropriate to the current stage of implementation. An Environmental Assessment has been completed and Finding of No Significant Impact signed, or final EIS has been filed with EPA, or final EIS supplement has been filed with EPA, or the applicable action will have been completed by 31 August of the PY-2.
6. An M-CACES Baseline cost estimate has been prepared, in accordance with ER 5-1-11, with approval at the appropriate level as the basis for the subsequent work and financial flow.
7. A project management plan (PMP) has been prepared and approved.
8. No known or reasonably anticipated conditions or unresolved issues exist which might prevent either: (a) award of the first significant construction contract by the end of the PY; or (b) the start of real estate acquisition for the first significant construction contract so that the scheduled construction contract can be awarded no later than the end of the following fiscal year (PY+1) in the absence of the sponsor possessing title to the required lands and easements. Planning, engineering and design work should be far enough along in the PY so that the orderly and continuous progression of construction is assured with the scheduled award of the first construction contract.
9. Programmed recreation facilities either are minimum facilities needed for health and safety as defined in ER 1165-2-400, or have a non-Federal Partner that has agreed to provide 50 percent cost sharing and financing for its share of recreation costs and to bear 100 percent of the recreation operation and maintenance costs in accordance with the cost sharing and financing concepts in the Water Resources Development Act of 1986, as amended.
10. In the case of a specifically authorized project, separable element, reconstruction project, rehabilitation project, or navigation mitigation project, or resumption thereof, that produces economic outputs and is proposed as new construction, the most recent approved report with an economic analysis is current (meets the criteria in paragraphs II-2-5.c.(3) or II-2-6.b as applicable).

SUB-ANNEX II-3

Construction and MR&T Construction

Dam Safety Assurance, Seepage Control, and Static Instability Correction Projects

II-3-1. Applicability. This program involves three types of projects: Dam Safety Assurance projects; Seepage Control projects; and Static Instability Correction projects.

II-3-2. Definitions.

a. In accordance with section 1203 of the Water Resources Development Act of 1986, a Dam Safety Assurance project is a "modification....the cause of which results from new hydrologic or seismic data or changes in state-of-the-art design or construction criteria deemed necessary for safety purposes."

b. Seepage Control and Static Instability Correction projects are not types of Dam Safety Assurance projects. Rather, they are types of rehabilitation projects, and do not qualify as Dam Safety Assurance under the current Executive Branch interpretation of section 1203 of the Water Resources Development Act of 1986.

c. The decision document for a dam safety project is a Dam Safety Modification Report.

II-3-3. Project Development.

a. The National Dam Safety Program is a line item in the O&M account that funds, among other things, assessments of the dams in the Civil Works inventory. Each dam is classified using the Dam Safety Action Classifications (see TABLE II-3-1).

b. For those dams that meet DSAC threshold criteria, project-specific studies of the safety of the dams are funded from the Dam Safety Assurance, Seepage Control, and Static Instability Correction Program in the C account. Dams in all business programs are included. The first study under the program for a project is an Initial Evaluation Report (IES), which is completed by the District and review and approved by the Senior Oversight Group (SOG). The IES defines the additional studies required for a Dam Safety Modification Report (DSMR). Upon completion of the required studies, a dam safety modification report is submitted to the Dam Safety Officers at district, MSC, and HQUSACE for approval. Upon report approval, the report is submitted to the ASA(CW) for concurrence in construction. Once concurrence is obtained, planning, engineering and design are undertaken using funds from the Dam Safety Program, provided the project continues to meet the DSAC threshold criteria.

c. If the ASA(CW) concurs in construction, the project is line-item budgeted at the next opportunity. The project is budgeted as continuing construction.

d. If the ASA(CW) concurs in construction and the project is ready to initiate physical construction, the project may initiate physical construction using line-item funds, or using Dam Safety Program funds until line-item funds become available.

II-3-4. Eligibility Criteria.

a. For FY14, only DSAC Class I and II projects are eligible for funding in the wedge or as line items. Prioritization of projects will be determined by the Dam Safety Senior Oversight Group via a risk informed process for the national portfolio of dams. Prioritization and queues are necessary due to

resource limitations and to reduce overall portfolio risk as efficiently as possible. The associated queues contain the set of dams awaiting studies or processing to the next step, reflecting their prioritization. While the intent is that the queues are eventually cleared, there is potential for a higher priority dam (from a dam safety issue viewpoint) could come into a queue and move ahead of others already in the queue based on the individual dam's safety status and circumstance.

b. Interim Risk Reduction Measures (IRRM) and IRRM Plans will be funded from the Operation and Maintenance account. See Sub Annex III-2.

II-3-5. Cost Sharing.

a. In accordance with section 1203 of the WRDA 1986, 15 percent of Dam Safety Assurance project costs are assigned to project purposes in accordance with the cost allocation in effect for the project at the time the work is initiated, and non-Federal interests share the costs of each purpose in accordance with the cost sharing in effect at the time of initial project construction. 85 percent of costs are borne entirely by the Federal Government.

b. Under current policy, Seepage Control and Static Instability Correction projects are types of rehabilitation projects. Consequently, section 1203 of WRDA 1986 cost sharing does not apply to them. Seepage Control and Static Instability Correction projects will be cost shared the same as other rehabilitation projects, namely, in the same proportions as O&M costs. The exception is Seepage Control or Static Instability Correction at inland waterway projects, which are authorized by WRDA 1986 to be cost shared 50 percent from the Inland Waterways Trust Fund, subject to appropriations, and will be programmed as 50/50 on a cumulative basis.

TABLE II-3-1

Dam Safety Action Classification (DSAC)

DSAC Class Code	Definition of Classification
1	Dams where progression toward failure is confirmed to be taking place under normal operations and the dam is almost certain to fail under normal operations within a time frame from immediately to within a few years without intervention; or, the combination of life or economic consequences with probability of failure is extremely high.
2	Dams where failure could begin during normal operations or be initiated by an event. The likelihood of failure from one of these occurrences, prior to remediation, is too high to assure public safety; or, the combination of life or economic consequences with probability of failure is very high.
3	Dams have issues where the dam is significantly inadequate or the combination of life, economic, or environmental consequences with probability of failure is moderate to high.
4	Dams are inadequate with low risk such that the combination of life, economic, or environmental consequences with a probability of failure is low and the dam may not meet all essential USACE guidelines.
5	Dams considered adequately safe, meeting all essential agency guidelines and the residual risk is considered tolerable.

SUB-ANNEX II-4

Construction and MR&T Construction

Supporting Documentation and Submission Requirements

II-4-1. Schedules and Capabilities.

a. Capabilities. PY thru PY+19 capabilities should be loaded into the OFA "PBS Multi Year Funding Stream" data entry form for each new and continuing construction project or line-item funded Safety of Dams project that could initiate or continue construction in the PY thru PY+9 period. Capability is defined as the amount of funds, over and above projected or actual unobligated carry-in, that can be obligated effectively on a project in a fiscal year, consistent with law and policy. Funds that cannot be obligated in a fiscal year and would be carried over for obligation in future fiscal years are not included in capability. The exception is that, for contract work that is fully funded in a fiscal year but has a performance period extending beyond that fiscal year, the full costs of engineering and design and supervision and administration associated with that contract work may be included in capability for that fiscal year. See reference ER 11-2-292.

b. Prepare a detailed project schedule using P2 Primavera, reflecting an unconstrained (Capability) level of funding in the PY and out-years, for each new and continuing construction project, separable element, or line-item funded Safety of Dams project eligible for construction funding in the PY. The P2 Primavera data must reflect the funding decisions enacted by Congress for PY-2, and a realistic expectation of PY-1 funding. All active uncompleted separable elements must be displayed separately. The P2 Primavera data will be queried as needed to produce extracts and reports.

c. A completion date for each new or continuing construction project, separable element, or line-item funded Safety of Dams project that has programmed construction work will be developed for the Capability Level. Use the completion date for currently programmed work if the completion date for the entire project is indefinite. Show separate completion dates for initial construction and periodic re-nourishment dates for beach nourishment projects.

d. Proportional Cash Financing. Project schedules should assume Federal and Non-Federal funding is in balance (in terms of the respective percent shares of cash contributed on a cumulative basis) throughout construction life unless otherwise approved as part of the PPA. The exception is in the first fiscal year of construction, when Federal and non-Federal contributions will be adjusted to bring the sponsor's total sunk and current contributions in line with its required cash percentage of cumulative obligations through that fiscal year (including PED obligations, which are included in total project costs). Credit for authorized and approved construction by the sponsor, if any, should be included in financial obligations for construction and applied toward the sponsor's required cash contribution (other than the 5 percent cash share required for structural flood control) in the year that the credit for the completed work is afforded. In all cases the schedule for obligating and expending non-Federal funds is independent of the schedule for the provision or crediting of LERRDs. Proportional cash financing also applies to inland waterway projects, where the share of cumulative obligations (including PED costs) borne by the Trust Fund should attain 50 percent as soon as possible and be maintained at 50 percent throughout construction.

e. It is extremely important that schedules and capabilities be realistic and risk-based. Project capabilities are used in formulating the President's Budget and the Five-Year Development Plan, and overly optimistic schedules, or capabilities that ignore carry-in or fund out-year obligations, lead to a misallocation of funding.

II-4-2. Cost Estimates, Contingencies, and Inflation.

a. Cost estimates will be developed as noted below, assuming a Capability schedule and in accordance with the instructions in ER 11-2-240 and paragraph 13 in the MAIN part of this EC. Inflation factors are shown in TABLE 1 in the MAIN part of this EC. The inflation allowance for each project will be computed only once and will be used without re-computation for other funding levels.

- (1) Develop a Capability Level schedule for each project at a 1 October PY-1 price level (Uninflated Project Cost Estimate).
- (2) Do not further escalate contracts already awarded or to be awarded by 30 September PY-2.
- (3) Escalate each contract to be awarded in the PY-1 and future years through its construction period in accordance with the guidance in paragraph 10 in the Main EC.
- (4) Escalate land acquisition, in-house planning, engineering and design costs, in-house construction management costs, and non-Federal costs through the construction period also in accordance with the guidance in ER 11-2-240.

b. Design costs prior to receipt of Construction funds:

- (1) Continuation of Planning and Engineering (CP&E): Effective 1 October 1985, funds obligated for CP&E are considered project costs and must be included in project cost estimates. CP&E costs obligated prior to 1 October 1985 remain excluded from project cost estimates.
- (2) Advance Engineering and Design (AE&D) and Preconstruction Engineering and Design (PED): All AE&D and PED costs are considered project costs and must be included in project cost estimates.

c. Items which are indefinite or un-programmed will be based on a 1 October PY-1 price levels without an allowance for inflation. Indefinite or un-programmed items include parts of projects that will very likely not be programmed due to lack of local support or other non-funding reasons, as well as all new construction candidates that are not included in the PY program. Many items in the un-programmed balance to complete, although currently designated as active, may eventually be deauthorized or reclassified to the deferred or inactive categories.

d. Contingencies: The methodologies in P2 Primavera (PM) (Base and Plug-In Methodologies in Project Architect) include separate activities on which to resource contingencies. They are:

WBS	Activity Code	Activity Description
30DS0-Construction Contract A	CON490	Budgeted Construction Contingency
30DS1-Construction Contract B	CON740	Budgeted Construction Contingency
30DV0-E&D During Construction	END6340	Budgeted E&D Contingency
31E00-S&A Prog & Proj Mgmt	SNA6640	Budgeted S&A Contingency

The contingency allowance should be varied according to the stage of planning and design. ER 1110-2-1302, annex D, provides reasonable percentage factors to be used for contingency allowances for construction and relocation features. For projects that are programmed to complete in the PY, the PY request may include an appropriate, reasonable amount for contingencies. The scheduled dates on the activities in P2 Primavera should be used to place the resourced amount for budgeted contingency within the PY. For projects that are not programmed to complete in the PY, the project cost estimate may

include appropriate contingency allowances, and such allowances must be distributed in the out-years in proportion to the work to which the contingencies apply; however, the PY request must not include an amount for contingencies. As a project nears completion, the contingency allowance must be reduced accordingly. In no case will contingencies for completed work be included. Claim settlements and deficiency judgments in the PY and out-years will be handled in accordance with normal reprogramming procedures. PY and out-year requests must not include amounts for anticipated claim settlements or anticipated deficiency judgments.

II-4-3. Alternate Funding Levels for the PY Budget.

a. Initial Funding Level. The initial funding level for each continuing project, separable element, or line-item funded Safety of Dams project is limited to: 1) the amount needed for contractor earnings (no more, no less) in PY for continuing contracts funded in the PY-1 President's Budget and with performance continuing into the PY; plus 2) the costs of contract management, E&D during construction, and real estate activities associated with all contract work funded in the PY-1 President's Budget and with performance continuing into the PY; minus 3) anticipated unobligated carry-in to PY.

b. Increments within Capability Level. Appendices B thru I provide guidance on assigning costs to and documenting logical funding increments above Initial and within the Capability level.

II-4-4. Benefit-Cost Ratio (BCR) and Remaining Benefit-Remaining Cost Ratio (RBRCR).

a. BCR. Data on benefit-cost ratios (BCRs) should be input into OFA and provided in TABLE II-4-5, entitled: BCR Worksheet, for projects and separable elements other than design or construction deficiency correction projects, Safety of Dams projects, and aquatic ecosystem restoration projects. Note that 9 new columns have been added to OFA in FY 14 requiring BCR data input.

b. RBRCR. Use the following guidelines and the RBRCR worksheets and instructions, below, to compute the RBRCR at the applicable interest rate, the current interest rate, and the OMB prescribed 7% interest rate for projects and separable elements other than design or construction deficiency correction projects, Safety of Dams projects, and aquatic ecosystem restoration projects.

(1) Remaining Costs. Consider anticipated Federal and non-Federal allocations and other non-Federal costs through the PY-1 as sunk, and exclude them from the RBRCR computation. The Remaining Costs shall be the Federal and non-Federal allocations as of the end of PY-1 based on the current project cost estimate and allocations from prior years and on the President's Budget for PY-2 in October 2012 dollars. Where the project includes completed separable elements, independent units and/or useful increments, OMRR&R costs for completed units/increments shall also be considered sunk, and only OMRR&R for remaining units/increments shall be considered in remaining project costs. The remaining costs should include any reimbursements to be paid for work already completed.

(2) Remaining Benefits. Where the project includes completed separable elements, independent units and/or useful increments, the amount of annual benefits that would be expected to accrue over the period of analysis for completed or functioning components of the total project shall be considered sunk and excluded from the RBRCR computation. Sunk benefits for projects that have reimbursable features should be estimated based on the reimbursable costs expended and an estimate on the amount of sunk benefits that would be associated with that level of expenditure. Remaining benefits are those that will be attainable in the PY or thereafter only if project features not completed with allocations through PY-1 are completed and operated and maintained.

(3) The RBRCR supporting PY funding requests for new construction candidates must be based on current approved evaluations of benefits and costs contained in an official report approved in or later than PY-5. In no case should the benefits be price indexed except for specific benefit categories such as roads, bridges and rail line damages provided these benefits do not constitute a major portion of overall benefits.

(4) For projects that were authorized without a formal benefit-cost analysis because monetary benefits have not been quantified, indicate the RBRCR is not applicable and the reasons why.

(5) For PY, the RBRCR's will be computed using both the applicable rates from TABLE II-4-5 and a standard discount rate of 7 percent.

c. Alternative Methods for RBRCR. Use one of the following methods for determining RBRCR as appropriate for the conditions and situations associated with each project. It is expected that the most commonly used method will be the Deflation of Costs method outlined below. In any case, cost savings from implementation of the project or separable element will be treated as benefits, not as offsets against implementation costs.

(1) Deflation of Cost Method. The Deflation of Cost method will generally be used for projects where the last approved economic analysis remains generally current with existing and anticipated future conditions. In this method, remaining costs are to be deflated to the date of price level basis of the last approved economic benefits analysis using the composite CWCCIS. Interest during construction will be computed for the remaining period of construction at the various interest rates and based on the anticipated remaining construction allocations. The total project cost will be annualized at the various interest rates over the appropriate period of analysis (usually 50-years). Remaining OMRR&R will also be deflated to the price level of the last approved benefit analysis and added to the annualized capital costs to determine total remaining annual costs. The total remaining annual benefits will be determined on the same price levels of the last approved economic analysis, and at the various interest rates. Then RBRCRs for the various interest rates will be computed.

(2) Economic Update Method. The Economic Update Method will consist of the district preparing an economic update of total and remaining project benefits on current price levels in accordance with an approved Economic Update Plan. The price level prevailing during PY-2 will be used to update the benefits. Remaining cost will be calculated using the steps outlined in paragraph 1 above. RBRCRs calculations using this method will then be adjusted by the deflation method outlined above. The Economic Update Method should be used for projects wherein the last approved economic analysis is old and/or otherwise no longer reflective of current and anticipated future conditions. This would be especially useful for projects that have prolonged and periodic construction activities such as levee lifts (ie. MR&T) and additions to training river control works over extended periods of time. In performing economic updates current and future development, traffic levels, fleet characteristics, residual risks, operating practices, and other relevant factors should be factored in to the analysis as appropriate to derive a reasonably accurate estimate of project benefits.

(3) Beach Re-nourishment Projects. For beach re-nourishment projects, the general assumption and calculations in the original (and last approved) economic analysis is one of needing to continue to periodic re-nourish the beach to maintain the design profile. Otherwise the estimated benefits would not be realized. Therefore, for beach re-nourishment activities, the RBRCR shall be computed in the following manner for the various project interest rates. Either the Deflation of Project Costs or the Economic Update Method outlined above may be used. However, the period of analysis for comparison of remaining costs and remaining benefits will be the remaining period of authorized Federal participation

in the period re-nourishment of the project and/or applicable separable element. Remaining benefits will be considered the total annual benefits of the project after accounting for any historic and future growth in development used in the last approved economic analysis. For example, if there are 25 years remaining in authorized Federal participation in re-nourishment, the remaining construction and OMRR&R costs will be amortized over that period at the various interest rates, and compared to the annual benefits also computed at the same interest rate.

d. RBRCR instructions and spreadsheets are below:

TABLE II-4-1

Remaining Benefit/Remaining Cost Ratio (RBRCR) Summary Sheet



RBRCR Summary Sheet

TABLE II-4-2

Sample Non-Beach RBRCR Spreadsheet with Instructions



RBRCR Instructions -
Non-Beaches



RBRCR Spreadsheet
- Non-Beaches

TABLE II-4-3

Sample Beaches RBRCR Spreadsheets with Instructions



RBRCR Instructions -
Beaches



RBRCR Spreadsheet
- Beaches

TABLE II-4-4

Final Division Summary RBRCR List



RBRCR - MSC
Summary List

TABLE II-4-5

BCR Worksheet



BCR Worksheet

II-4-5. Submission Requirements.

a. All items shall be submitted by the dates shown in TABLE 2 in the MAIN part of this EC.

(1) Illustration II-4.1, Project Data Summary Table.

(a) This OFA report will be prepared using the OFA “PBS Multi Year Funding Stream DEF” data entry form. Individual Illustrations II-4.1 prepared for separable elements will be rolled up into their parent projects by use of the P2 Program Code. The PY Federal and IWTF budget amounts cannot be entered directly on this data entry form, but will be auto-populated from the PBS performance measure data entry forms. OFA analysis cubes can be used to provide summaries of Federal (Corps) and, Inland Waterways Trust Fund requirements from data entered into the “PBS Multi Year Funding Stream DEF” form.

(b) This table should be developed for all continuing, policy-consistent projects and separable elements, all new construction planned for initiation in the PY thru PY+9 period, and all eligible Safety of Dams projects planned for migration from the Safety of Dams “wedge” in the PY thru PY+9 period (see Sub-Annex II-3). The objective is to display an orderly flow of high performing, urgently needed and locally supported projects and separable elements that are in accord with current policies and priorities. Initiation of new construction should be scheduled no sooner than the fiscal year following completion of PED.

(2) Illustration II-4.2, PY Justification Sheet - early submission of continuing and new justification sheets are used by decision makers as additional information to determine the highest priority projects to budget. Although funds for separable elements of ongoing construction projects are not programmed on an individual basis and are included as part of the program requests for their parent projects, Illustration II-4-2, PY Justification Sheet, will be prepared for each separable element that is recommended as new construction in the PY. See paragraph 16 in the MAIN part of this EC for specific instructions on J-sheets and Congressional submission to HQ.

(3) BCR and RBRCR analyses in accordance with paragraph II-4-4 for projects and separable elements other than design or construction deficiency correction projects, Safety of Dams projects, and aquatic ecosystem restoration projects by the dates shown in TABLE 2 in the MAIN part of this EC.

b. New Construction. New construction is defined in paragraph II-2-7. The following items shall be submitted by the dates shown in TABLE 2 of the MAIN part of this EC.

(1) Illustration II-4.3, New Construction Checklist, will be prepared to identify each new start or resumption recommended for construction funding in the PY.

(2) Note actual or scheduled approval date in Illustration II-4.3, and notify HQ if approval is pending. If copies of required reports have been sent for previous program submissions, the RIT will verify the availability of these reports before requesting additional copies.

(3) Evidence of Executive Branch support - note actual or scheduled date in Illustration II-4.3, and notify HQ if final Executive Branch action is pending.

(4) Approved M-CACES Baseline cost estimate - summary sheets to the sub-feature element level for each feature and the appropriate narrative.

TABLE II-4-6

Applicable Discount Rates in Effect

When Initial Construction Funds Were Appropriated

Fiscal Year	Discount Rate 1/ Show on Justification Sheet	Show on Illustration II-2.1
1958	2 1/2	2.500
1959	2 1/2	2.500
1960	2 1/2	2.500
1961	2 5/8	2.625
1962	2 5/8	2.625
1963	2 7/8	2.875
1964	3	3.000
1965	3 1/8	3.125
1966	3 1/8	3.125
1967	3 1/8	3.125
1968	3 1/4	3.250
1969	3 1/4	3.250
1970	4 7/8	4.875
1971	5 1/8	5.125
1972	5 3/8	5.375
1973	5 1/2	5.500
1974	5 5/8	5.625
1975	5 7/8	5.875
1976	6 1/8	6.125
1977	6 3/8	6.375
1978	6 5/8	6.625
1979	6 7/8	6.875
1980	7 1/8	7.125
1981	7 3/8	7.375
1982	7 5/8	7.625
1983	7 7/8	7.875
1984	8 1/8	8.125
1985	8 3/8	8.375
1986	8 5/8	8.625
1987	8 7/8	8.875
1988	8 5/8	8.625
1989	8 7/8	8.875

1/ Unless the project qualifies for the 3 1/4 percent rate under the "grandfather" clause in Section 80 of the 1974 Water Resources Development Act.

TABLE II-4-6
(Continued)

Applicable Discount Rates in Effect
When Initial Construction Funds Were Appropriated

Fiscal Year	Discount Rate 1/ Show on Justification Sheet	Show on Illustration II-2.1
1990	8 7/8	8.875
1991	8 3/4	8.750
1992	8 1/2	8.500
1993	8 1/4	8.250
1994	8	8.000
1995	7 3/4	7.750
1996	7 5/8	7.625
1997	7 3/8	7.375
1998	7 1/8	7.125
1999	6 7/8	6.875
2000	6 5/8	6.625
2001	6 3/8	6.375
2002	6 1/8	6.125
2003	5 7/8	5.875
2004	5 5/8	5.625
2005	5 3/8	5.375
2006	5 1/8	5.125
2007	4 7/8	4.875
2008	4 7/8	4.875
2009	4 5/8	4.625
2010	4 3/8	4.375
2011	4 1/8	4.125
2012	4	4.000

1/ Unless the project qualifies for the 3 1/4 percent rate under the "grandfather" clause in Section 80 of the 1974 Water Resources Development Act.

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ILLUSTRATION II-4.1

Project Data Summary
\$000

Oracle Financial Analyzer: logged in as u4ievf9 - Microsoft Internet Explorer

PBS Project Data Summary Report

Civil Works Project PBS Funding Level/Increment Program Year
 113000 - K6-C6 BRUNSWICK HARBOR, GA CURRENT PY2008

PBS Project Data Summary Report
(Dollars in Thousands)

	Project Data Summary Table						
	GLOBAL DATA	ALLOC THRU PY-3	ALLOC FOR PY-2	ALLOC THRU PY-2	PY-1	PY	PY+1
INFORMATION SECTION:							
P2 PROJECT NAME	113000 - K6-C6 BRUNSWICK ...						
EROC NAME	K6 - SAVANNAH DISTRICT						
PROGRAM CODE	N/A						
LEGACY PROJECT NUMBER	050730						
PRIMARY CONGRESSIONAL DISTRICT	GA01 - GEORGIA DISTRICT 1						
STATUS	APPROVED						
CEPMS PROJECT WORK ITEM	71D94J						
CURRENT P2 ALLOCATION/BUDGET			29,131	29,131	61,706	11,534	1
CURRENT P2 ALLOCATION/BUDGET (INFLATION ADJUSTED)			29,131	29,131	62,535	11,668	1
FUNDING SECTION:							
FEDERAL (CORPS)					19,877	10,270	0
NON-FED CASH CONTRIBUTIONS					42,658	1,397	0
TOTAL					62,535	11,668	1
SCHEDULE/MILESTONE SECTION:							

start | M... | I... | 3 I | O... | W... | P... | Express and OFA | MS Office | Utilities | USACE Apps | 1:47 PM

ILLUSTRATION II-4.2

PY Justification Sheet

(NOTE: DO NOT TYPE ILLUSTRATION HEADING ON JUSTIFICATION SHEET)

APPROPRIATION TITLE: Construction - Enter the project classification and type.

PROJECT: Enter the project name, state and whether it is new or continuing.

LOCATION: Enter a brief description of the project location, clearly identifying major landmarks, counties, and municipalities in the project vicinity.

DESCRIPTION: Enter a brief description of the plan of improvement clearly identifying major project features and differentiating between programmed and un-programmed work. Indicate if project is part of a system. For reservoir projects, include breakdown of storage by function. Differentiate between programmed and un-programmed work. For ecosystem restoration projects include area in acres to be restored and types of habitat. If operation and maintenance is required to maintain describe briefly what and how often – For example to keep and area as a wetland dredging will be required every 5 years. If monitoring/adaptive management is authorized or recommended in the approved report – briefly describe what is approved and the period of time involved. Note the recommended/authorized cost of these items.

AUTHORIZATION: Enter the act authorizing the project, such as: Water Resources Development Act of xxxx.

REMAINING BENEFIT-REMAINING COST RATIO: Enter the RBRCR for the project at a 7 percent discount rate (as calculated per Sub-Annex II-4). If the project is substantially complete and the RBRCR is no longer meaningful, enter: Not applicable because project construction is substantially complete.

TOTAL BENEFIT-COST RATIO: Enter the benefit-cost ratio for the project at a 7 percent discount rate.
For Ecosystem restoration projects briefly summarize the results of the Cost Effectiveness/Incremental Cost Analysis. If the NER plan was not authorized note this.

INITIAL BENEFIT-COST RATIO: Enter the benefit-cost ratio at the applicable discount rate and the fiscal year for which Congress appropriated initial construction funds such as: 1.11 to 1 at 5 1/8 percent (FY xxxx). Omit this item for PY new construction. Use the applicable discount rate from TABLE II-4-6.

Division:

District:

Project name:

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ILLUSTRATION II-4.2 (Continued)

PY Justification Sheet

BASIS OF BENEFIT-COST RATIO: Indicate the basis of the benefit-cost ratios, such as: Benefits are from the latest available evaluation approved in (month) xxxx at xxxx price levels.

SUMMARIZED FINANCIAL DATA	ACCUM PCT OF EST FED COST	STATUS (1 Jan xxxx)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
(For projects with an un-programmed balance to complete, but no future non-Federal reimbursement.)		Element A	xx	May xxxx
		Element B	0	Indefinite
		(For shore protection projects)		
		Initial Construction	xx	Sep xxxx
		Periodic Nurshmnt	xx	Jun xxxx
Estimated Federal Cost	xx,xxx,xxx	Entire Project	xx	Jun <u>xxxx</u>
Programmed Construction	xx,xxx,xxx			
Un-programmed Construction	xx,xxx,xxx			
Estimated Non-Federal Cost	xx,xxx,xxx			
Programmed Construction	xx,xxx,xxx			
Cash Contributions	xx,xxx,xxx			
Other Costs	xx,xxx,xxx			
Estimated Non-Federal Cost				
Unprogrammed Construction	xx,xxx,xxx			
Cash Contributions	xx,xxx,xxx			
Other Costs	xx,xxx,xxx			
Total Estimated Programmed Construction Cost	xx,xxx,xxx			
Total Estimated Unprogrammed Construction Cost	xx,xxx,xxx			
Total Estimated Project Cost	xx,xxx,xxx			

Division:

District:

Project name:

ILLUSTRATION II-4.2 (Continued)

PY Justification Sheet

SUMMARIZED FINANCIAL DATA (Continued)	ACCUM PCT OF EST FED COST	STATUS (1 Jan <u>xxxx</u>)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Allocations to 30 September PY-4	xx,xxx,xxx			
Allocation for PY-3	xx,xxx,xxx			
Allocation for PY-2	xx,xxx,xxx			
Conference Allowance for PY-1	xx,xxx,xxx			
Allocation for PY-1	xx,xxx,xxx	1/ 2/ 3/		
Allocations through PY-1	xx,xxx,xxx			
Estimated Unobligated Carry-In Funds	xx,xxx,xxx	4/		
Budget Amount for PY	xx,xxx,xxx			
Programmed Balance to Complete after PY	xx,xxx,xxx			
Unprogrammed Balance to Complete after PY	xx,xxx,xxx			

1/ \$_____ reprogrammed to (from) the project. (Use footnote as applicable)

2/ \$_____ rescinded from the project. (Use footnote as applicable)

3/ \$_____ transferred to the Flood control and Coastal Emergencies (FCCE) account. (Use footnote as applicable)

4/ Estimated Unobligated "Carry-in" Funding: As of the date this justification sheet was prepared, the total unobligated dollars estimated to be carried into the Program Year (PY) from prior appropriations for use on this study / project effort is \$_____. This amount, together with the Budget Amount shown above, will be used to perform work on the PY study / project as follows: (provide a brief description of how the unobligated carry-in funds will be used here).

For programmed work only; remaining work is un-programmed pending a decision to construct these features.

PHYSICAL DATA: Under appropriate subheadings, enter the significant physical data on the major project facilities indicating mitigation, indicating the project scope.

JUSTIFICATION: Enter an explicit and factually objective presentation of the merits of the project, i. e., an answer to the question: "Why now?" In narrative form, present your best case. The following information, when related to recent events or the current state of the economy, is more convincing than a simple recitation of facts.)

Division:

District:

Project Name:

ILLUSTRATION II-4.2 (Continued)

PY Justification Sheet

For flood projects, state the present value and type of property subject to flood damage; the average annual damages, with and without the project; the flood frequency against which protection is to be provided; the maximum flood of record; the damage sustained at that time and what it would be now; the frequency and duration of flooding; recent flood experience; and any other data which indicate the magnitude and severity of the flood problem and the need for protection. Include information on risk to life such as velocity and depth of flooding and amount of warning time and egress conditions. If more than 20 percent of urban flood damage prevention benefits are future benefits, explain the basis for such future benefits. In particular, estimated benefits for prevention of damages to household contents must be in accordance with the most recent CECW-P guidance. Describe the residual risk in terms of damages, population at risk, and the type of risk (rapid flooding from levee overtopping, etc). Does project directly or indirectly support future flood plain development in areas other than those near already urbanized areas or where flood plain values have been largely lost? Does it avoid, to the extent possible, the long and short term adverse impacts associated with the destruction or modification of wetlands and/or other environmental attributes?

For commercial navigation projects, discuss major commodities imported and exported; average commerce tonnage over the most recent 10-year period; savings per ton for selected commodities; availability of dredged material disposal sites; and size of ships expected to call at the port in the future.

For Ecosystem restoration discuss significance, as described in Appendix II, TABLE II-2-3 paragraphs 51-63, of the resources being restored, expected benefits and time frame for the realization of these benefits (eg – mature oak forest full benefits 10-20 yrs out), incidental benefits, and significant factors affecting the cost – such as urban. See Appendix II for other items that you may want to cover in the justification.

For water supply or hydroelectric power generation projects, specify the storage provided, and the potential sponsor(s) who has agreed to fully finance the applicable costs.

Similar specific data should be provided for other types of projects and purposes.

Identify those counties, districts, Indian reservations, or other areas which qualify as areas of "substantial and persistent" unemployment using the procedures in the Principles and Guidelines. The construction activities must be physically located in such areas in order for the benefits from employment of previously unemployed labor resources to be included in the project's justification.

Discuss the extent to which project beneficiaries have made investments other than the required items of local cooperation whose return is contingent upon completion of the Federal project.

Division:

District:

Project name:

ILLUSTRATION II-4.2 (Continued)

PY Justification Sheet

Include a tabular listing of annual benefits as the final item of the justification paragraph if there is more than one applicable benefit category, such as: Average annual benefits are as follows:

Annual Benefits	Amount
Benefit 1	x,xxx,xxx
Benefit 2	x,xxx,xxx
Benefit 3	x,xxx,xxx
Total	xx,xxx,xxx

FISCAL YEAR PY-1: Enter a paragraph describing how PY-1 funds are being used. The current amount is being applied as follows:

FISCAL YEAR PY: Enter a tabular explanation of how the PY funds will be used, such as: The budget amount plus carry-in funds will be applied as follows:

Initiate	\$x,xxx,xxx
Initiate and complete	x,xxx,xxx
Continue	x,xxx,xxx
Complete	x,xxx,xxx
Planning, Engineering, and Design for parent project	x,xxx,xxx
Planning, Engineering, and Design for Element A	x,xxx,xxx
Planning, Engineering, and Design for Element B	x,xxx,xxx
Construction Management	x,xxx,xxx
Total	\$xx,xxx,xxx

NON-FEDERAL COST: Enter a separate tabular explanation of the requirements of local cooperation included in each project cooperation agreement applicable to the project together with the associated payments during construction, reimbursements, and annual operation, maintenance, repair, rehabilitation, and replacement costs, such as: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, as amended, the non-Federal sponsor must comply with the requirements listed below.

ILLUSTRATION II-4.2 (Continued)

PY Justification Sheet

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Separable Element A (Repeat as applicable for each separable element).		
Provide lands, easements, (and) rights of way, (add for all but commercial navigation projects: and dredged or excavated material disposal areas) (add if appropriate: , which may be reduced for credit allowed for work in kind (Section 104 of the Water Resources Development Act of 1986, as amended, Section 215 of the Flood Control Act of 1968, or section 221 of the Flood Control Act of 1970, as amended)) after reductions for such credit have been made in the required cash payments.	x,xxx,xxx	
(Add if covered under post-1994 PPA: Participate in Project Coordination Team, conduct audits of non-Federal costs, and perform investigations of hazardous substances).	x,xxx,xxx	
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	x,xxx,xxx	
Pay all costs allocated to hydropower and bear all costs of operation, maintenance, repair, rehabilitation and replacement of hydropower features.	x,xxx,xxx	x,xxx

ILLUSTRATION II-4.2 (Continued)

PY Justification Sheet

Requirements of Local Cooperation (Continued)	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Pay all costs allocated to municipal and industrial water supply and bear all costs of operation, maintenance, repair, rehabilitation and replacement of municipal and industrial water supply features.	x,xxx,xxx	x,xxx
Pay one-half of the separable costs allocated to recreation (except recreational navigation) and bear all costs of operation, maintenance, repair, rehabilitation and replacement of recreation features.	x,xxx,xxx	x,xxx
Pay xx percent of the separable and joint costs allocated to recreational navigation to bring the total non-Federal share of recreational navigation costs to 50 percent, and bear all costs of operation, maintenance, repair, rehabilitation, and replacement of recreational navigation features.	x,xxx,xxx	x,xxx
Pay xx percent of the costs allocated to flood risk management to bring the total non-Federal share of flood risk management costs to (include one of the following: 25 percent / 35 percent / xx percent as determined under Section 103 (m) of the Water Resources Development Act of 1986, as amended, to reflect the non-Federal.	x,xxx,xxx	x,xxx

ILLUSTRATION II-4.2 (Continued)

PY Justification Sheet

Requirements of Local Cooperation (Continued)	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
<p>sponsor's ability to pay) (add if appropriate: , as reduced for credit allowed for work in kind (Section 104 of the Water Resources Development Act of 1986, as amended, Section 215 of the Flood Control Act of 1968, or Section 221 of the Flood Control Act of 1970, as amended)), but no less than 5 percent of the costs allocated to flood risk management, and bear all costs of operation, maintenance, repair, rehabilitation and replacement of flood risk management features.</p>		
<p>Pay xx percent of the costs allocated to fish and wildlife enhancement, and pay xx percent of the costs of operation, maintenance, repair, rehabilitation, and replacement of fish and wildlife features.</p>	x,xxx,xxx	x,xxx
<p>Pay xx percent of the costs allocated to ecosystem restoration to bring the total non-Federal share of ecosystem restoration costs to 35 percent (add if appropriate: as reduced for credit allowed for work in kind (Section 221 of the Flood Control Act of 1970, as amended)), and bear all costs of operation, maintenance, repair, rehabilitation and replacement of ecosystem restoration features.</p>	x,xxx,xxx	x,xxx
<p>Pay a share of project costs to bring the total non-Federal share of the costs allocated to coastal storm damage reduction to 35 percent, the total non-Federal share of the costs allocated to recreation to 50 percent, and the total non-Federal share of the costs allocated to privately owned shores (where use of such shores is limited to private interests) to 100 percent, and bear all costs of operation, maintenance, repair, rehabilitation, and replacement of coastal storm damage reduction features.</p>	x,xxx,xxx	x,xxx

ILLUSTRATION II-4.2 (Continued)

PY Justification Sheet

Requirements of Local Cooperation (Continued)	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Pay (include one of the following: 35 percent / xx percent, as determined under Section 103 (m) of the Water Resources Development Act of 1986, as amended, to reflect the non-Federal sponsor's ability to pay,) of the costs allocated to agricultural water supply, and bear all costs of operation, maintenance, repair, rehabilitation, and replacement of agricultural water supply features.	x,xxx,xxx	x,xxx
Pay xx percent of the costs allocated to general navigation facilities during construction (add if appropriate: and pay 50 percent of the costs of incremental maintenance below 45 feet below mean low water).	x,xxx,xxx	x,xxx
Reimburse an additional 10 percent of the costs of general navigation features allocated to commercial navigation within a period of 30 years following completion of construction, as reduced by a credit allowed for the value of lands, easements, rights of way, and relocations provided for commercial navigation.	x,xxx,xxx	
Total Non-Federal Costs	x,xxx,xxx	x,xxx

ILLUSTRATION II-4.2 (Continued)

PY Justification Sheet

The non-Federal sponsor has also agreed to make all required payments concurrently with project construction and, for general navigation, reimburse its share of construction costs within a period of 30 years following completion of construction.

Note: After approval by the ASA(CW), local credit based on ability to pay (Section 103 (m) of the Water Resources Development Act Of 1986, as amended), or general credit for prior work (Section 104 of the Water Resources Development Act Of 1986, as amended, or Section 215 of the Flood Control Act of 1968) must be reflected in the requirements of local cooperation as an offset to required cash contributions or, if necessary, LERRD contributions. However, any credit provided under Section 104 of the Water Resources Development Act Of 1986, as amended, or Section 215 of the Flood Control Act of 1968 may not be used to offset the required 5 percent cash contribution.

STATUS OF LOCAL COOPERATION: Identify the non-Federal sponsor, the current status of letters of intent, the current status of the PPA, actions being taken by the non-Federal sponsor toward compliance with the requirements of local cooperation, such as contributions made, bond issues passed, or other specific items. If known, state the method by which the non-Federal sponsor intends to provide its share of the project first costs (cash and other items of local cooperation) and annual O&M costs. List all potential sources of funds (together with dollar amounts, if known) to meet local cooperation requirements, including any anticipated Federal funds for which the Federal granting agency has indicated in writing that the use of such funds for items of local cooperation is authorized. List and describe any local work or investments that have already been made or are underway which would serve to fulfill all or part of the local cooperation requirements (including work accomplished pursuant to Section 215 of the 1968 Flood Control Act or creditable under Section 104 of the 1986 Water Resources Development Act).

In the event a PPA has not been executed, provide the scheduled month and year when the PPA is scheduled to be executed.

For projects with future non-Federal reimbursement, indicate the specific conditions which govern the initiation of non-Federal reimbursement payments and the scheduled date such reimbursement payments are scheduled to begin.

ILLUSTRATION II-4.2 (Continued)

PY Justification Sheet

For each project with an executed PPA, compare the approved non-Federal cost estimate in the PPA with the current non-Federal cost estimate and provide an assessment of the non-Federal sponsor's financial capability to contribute toward any increased costs and an indication of the sponsor's willingness to share in any increased costs, such as: The current non-Federal cost estimate of \$8,000,000, which includes a cash contribution of \$3,000,000, is an increase of \$1,000,000 from the non-Federal cost estimate of \$7,000,000 noted in the Project Partnership Agreement, which included a cash contribution of \$2,500,000. In a letter dated 3 March xxxx, the non-Federal sponsor indicated that it is financially capable and willing to contribute the increased non-Federal share. Our analysis of the non-Federal sponsor's financial capability to participate in the project affirms that the sponsor has a reasonable and implementable plan for meeting its financial commitment.

COMPARISON OF FEDERAL COST ESTIMATES (see ER 11-2-240, paragraph 10): Enter a tabular explanation of the changes in the Federal (Corps) cost estimate from the last estimate presented to Congress to the current estimate, such as: The current Federal cost estimate of \$xxx,xxx,xxx is an increase (decrease) of \$xx,xxx,xxx from the latest estimate (\$xxx,xxx,xxx) presented to Congress (FY xxxx). This change includes the following items.

Item	Amount
Price Escalation or De-escalation on Construction Features	\$x,xxx,xxx
Design Changes	x,xxx,xxx
Additional Functions Added under General Authority	x,xxx,xxx
Authorized Modifications	x,xxx,xxx
Post Contract Award and Other Estimating Adjustments (including contingency adjustments)	x,xxx,xxx
Schedule Changes	x,xxx,xxx
Price Escalation or De-Escalation on Real Estate	x,xxx,xxx
 Total	 \$x,xxx,xxx

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ILLUSTRATION II-4.2 (Continued)

PY Justification Sheet

STATUS OF ENVIRONMENTAL IMPACT STATEMENT COMPLIANCE: Indicate the status of the environmental impact statement, such as: The final EIS was filed with EPA on 28 September xxxx. List other significant items such as Clean Water Act, Coastal Zone Management Act, cultural resources and Endangered Species Act compliance status if not completed at the time the EIS was filed.

OTHER INFORMATION: Indicate when funds were appropriated to initiate preconstruction engineering and design and construction, respectively, such as: Funds to initiate preconstruction engineering and design were appropriated in FY xxxx and funds to initiate construction were appropriated in FY xxxx. If the scheduled completion date for programmed work has changed from the date last presented to Congress, explain the changes, such as: The scheduled completion date of June xxxx for programmed work is a (slippage or acceleration) from the latest completion date of March xxxx presented to Congress. This change is due to _____. Also, note any problems that should be considered by the Committees which might affect the progress schedule shown in your program request, as well as your expectations for and timing of a resolution of the problems. Fish and Wildlife Mitigation costs should also be separately identified and reflected in this paragraph.

Separable Element A (Repeat as necessary for each programmed separable element).

SUMMARIZED FINANCIAL DATA: For ongoing projects with programmed separable elements, provide a breakdown of the summarized financial data for each programmed separable element in the same format as displayed for the parent project, except that the allocations and conference allowance information is not required.

REMAINING BENEFIT-REMAINING COST RATIO: Enter the RBRCR for each programmed separable element at a 7 percent discount rate. If the element is substantially complete and the RBRCR is no longer meaningful, enter: Not applicable because construction is substantially complete. N/A for Ecosystem restoration.

TOTAL BENEFIT-COST RATIO: Enter the total benefit-cost ratio for each programmed separable element at a 7 percent discount rate. For Ecosystem Restoration projects briefly summarize the results of the Cost Effectiveness/Incremental Cost Analysis. If the NER plan is not being implemented note this and explain briefly.

ILLUSTRATION II-4.2 (Continued)

PY Justification Sheet

Additional Examples of Summarized Financial Data

For projects with no un-programmed balance to complete, and no future non-Federal reimbursement.

Estimated Federal Cost		xx,xxx,xxx
Estimated Non-Federal Cost		xx,xxx,xxx
Cash Contributions	xx,xxx,xxx	
Other Costs	xx,xxx,xxx	
Total Estimated Project Cost		xx,xxx,xxx

For projects with both an unprogrammed balance to complete and future non-Federal reimbursement.

Estimated Total Appropriation Requirement		xx,xxx,xxx
Programmed Construction	xx,xxx,xxx	
Unprogrammed Construction	xx,xxx,xxx	
Future Non-Federal Reimbursement	xx,xxx,xxx	
Programmed Construction	xx,xxx,xxx	
Unprogrammed Construction	xx,xxx,xxx	
Estimated Federal Cost (Ultimate)	xx,xxx,xxx	
Programmed Construction	xx,xxx,xxx	
Unprogrammed Construction	xx,xxx,xxx	

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ILLUSTRATION II-4.2 (Continued)

PY Justification Sheet

For projects with both an un-programmed balance to complete and future non-Federal reimbursement (continued).

Estimated Non-Federal Cost		xx,xxx,xxx
Programmed Construction	xx,xxx,xxx	
Cash Contributions	xxx,xxx	
Other Costs	xxx,xxx	
Reimbursements	xxx,xxx	
Purpose 1	xxx,xxx	
Purpose 2	xxx,xxx	
Unprogrammed Construction	xx,xxx,xxx	
Cash Contributions	xxx,xxx	
Other Costs	xxx,xxx	
Reimbursements	xxx,xxx	
Purpose 1	xxx,xxx	
Purpose 2	xxx,xxx	
Total Estimated Programmed Construction Cost		xx,xxx,xxx
Total Estimated Un-programmed Construction Cost		xx,xxx,xxx
Total Estimated Project Cost		xx,xxx,xxx

For projects with no unprogrammed balance to complete, but with future non-Federal reimbursement.

Estimated Total Appropriation Requirement		xx,xxx,xxx
Future Non-Federal Reimbursement	xx,xxx,xxx	
Estimated Federal Cost (Ultimate)	xx,xxx,xxx	

ILLUSTRATION II-4.2 (Continued)

PY Justification Sheet

For projects with no unprogrammed balance to complete, but with future non-Federal reimbursement (continued).

Estimated Non-Federal Cost		xx,xxx,xxx
Cash Contributions	xx,xxx,xxx	
Other Costs	xx,xxx,xxx	
Reimbursements	xx,xxx,xxx	
Purpose 1	xx,xxx,xxx	
Purpose 2	xx,xxx,xxx	
Total Estimated Project Cost		xx,xxx,xxx

For projects with an unprogrammed balance to complete, future non-Federal reimbursement, and where an additional Federal agency is involved.

Estimated Appropriation Requirement (CoE)		xx,xxx,xxx
Programmed Construction	xx,xxx,xxx	
Unprogrammed Construction	xx,xxx,xxx	
Estimated Appropriation Requirement (OFA)		xx,xxx,xxx
Programmed Construction	xx,xxx,xxx	
Unprogrammed Construction	xx,xxx,xxx	
Estimated Total Appropriation Requirement		xx,xxx,xxx
Programmed Construction	xx,xxx,xxx	
Unprogrammed Construction	xx,xxx,xxx	

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ILLUSTRATION II-4.2 (Continued)

PY Justification Sheet

For projects with an unprogrammed balance to complete, future non-Federal reimbursement, and where an additional Federal agency is involved (continued).

Future Non-Federal Reimbursement		xx,xxx,xxx
Programmed Construction	xx,xxx,xxx	
Unprogrammed Construction	xx,xxx,xxx	
Estimated Federal Cost (Ultimate) (CoE)		xx,xxx,xxx
Programmed Construction	xx,xxx,xxx	
Unprogrammed Construction	xx,xxx,xxx	
Estimated Non-Federal Cost		xx,xxx,xxx
Programmed Constructions	xx,xxx,xxx	
Cash Contributions	xx,xxx,xxx	
Other Costs	xx,xxx,xxx	
Reimbursements	xx,xxx,xxx	
Purpose 1	xx,xxx,xxx	
Purpose 2	xx,xxx,xxx	
Unprogrammed Construction	xx,xxx,xxx	
Cash Contributions	xx,xxx,xxx	
Other Costs	xx,xxx,xxx	
Reimbursements	xx,xxx,xxx	
Purpose 1	xx,xxx,xxx	
Purpose 2	xx,xxx,xxx	
Total Estimated Programmed Construction Cost		xx,xxx,xxx
Total Estimated Unprogrammed Construction Cost		xx,xxx,xxx
Total Estimated Project Cost		xx,xxx,xxx

ILLUSTRATION II-4.2 (Continued)

PY Justification Sheet

For projects with no unprogrammed balance to complete, but with future non-Federal reimbursement and where an additional Federal agency is involved.

Estimated Appropriation Requirement (CoE)		xx,xxx,xxx
Estimated Appropriation Requirement (OFA)		xx,xxx,xxx
Estimated Total Appropriation Requirement		xx,xxx,xxx
Future Non-Federal Reimbursement		xx,xxx,xxx
Estimated Federal Cost (Ultimate)		xx,xxx,xxx
Estimated Non-Federal Cost		xx,xxx,xxx
Cash Contributions	xx,xxx,xxx	
Other Costs	xx,xxx,xxx	
Reimbursements	xx,xxx,xxx	
Purpose 1	xx,xxx,xxx	
Purpose 2	xx,xxx,xxx	
Total Estimated Project Cost		xx,xxx,xxx

ILLUSTRATION II-4.2 (Continued)

PY Justification Sheet

The funding status for projects authorized to use funds appropriated from the Inland Waterways Trust Fund will be displayed as shown below.

	GENERAL APPNS.	INLAND WATERWAYS TRUST FUNDS	ACCUM. PCT. OF EST. FED. COST
Allocations to 30 September PY-2	xx,xxx,xxx	xx,xxx,xxx	
Conference Allowance for PY-1	xx,xxx,xxx	xx,xxx,xxx	
Allocation for PY-1	xx,xxx,xxx 1/	xx,xxx,xxx 1/	
Allocations through PY-1	xx,xxx,xxx	xx,xxx,xxx	xx
Estimated Carry-in Funds	xx,xxx,xxx 2/		
Budget for PY	xx,xxx,xxx	xx,xxx,xxx	xx
Programmed Balance to Complete after PY	xx,xxx,xxx	xx,xxx,xxx	
Unprogrammed Balance to Complete after PY	xx,xxx,xxx	xx,xxx,xxx	

1/ Reflects \$xxx reduction assigned as savings and slippage, and \$xxx reprogrammed to (from) the project. (Use example as applicable).

2/ Estimated "Carry-in" Funds: As of June 1, 2011, the total dollars estimated to be carried in from prior appropriations for use on this project effort. This amount, together with the "Budget for PY", will be used to perform the PY project activities.

ILLUSTRATION II-4.2 (Continued)

PY Justification Sheet

For deficiency correction projects and modifications to existing projects with no unprogrammed balance to complete and no future non-Federal reimbursement.

Original Project

Actual Federal Cost		xx,xxx,xxx
Actual Non-Federal Cost		xx,xxx,xxx
Cash Contributions	xx,xxx,xxx	
Other Costs	xx,xxx,xxx	
Total Original Project Cost		xx,xxx,xxx

Remedial Work or Project Modification

Estimated Federal Cost		xx,xxx,xxx
Estimated Non-Federal Cost		xx,xxx,xxx
Cash Contributions	xx,xxx,xxx	
Other Costs	xx,xxx,xxx	
Total Estimated Remedial or Modification Cost		xx,xxx,xxx
Total Estimated Project Cost		xx,xxx,xxx

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ILLUSTRATION II-4.2 (Continued)

PY Justification Sheet

For deficiency correction projects and modifications to existing projects with no unprogrammed balance to complete but with future non-Federal reimbursement.

Original Project

Actual Federal Cost		xx,xxx,xxx
Actual Non-Federal Cost		xx,xxx,xxx
Cash Contributions	xx,xxx,xxx	
Other Costs	xx,xxx,xxx	
Total Original Project Cost		xx,xxx,xxx

Remedial Work or Project Modification

Estimated Total Appropriation Requirement		xx,xxx,xxx
Future Non-Federal Reimbursement		xx,xxx,xxx
Estimated Federal Cost (Ultimate)		xx,xxx,xxx
Estimated Non-Federal Cost		xx,xxx,xxx
Cash Contributions	xx,xxx,xxx	
Other Costs	xx,xxx,xxx	
Reimbursements	xx,xxx,xxx	
Purpose 1	xx,xxx,xxx	
Purpose 2	xx,xxx,xxx	
Total Estimated Project Cost		xx,xxx,xxx

ILLUSTRATION II-4.2 (Continued)

PY Justification Sheet

For projects with an unprogrammed balance to complete, no future non-Federal reimbursement, and where an additional Federal agency is involved.

Estimated Federal Cost (CoE)		xx,xxx,xxx
Programmed Construction	xx,xxx,xxx	
Unprogrammed Construction	xx,xxx,xxx	
Estimated Federal Cost (OFA)		xx,xxx,xxx
Programmed Construction	xx,xxx,xxx	
Unprogrammed Construction	xx,xxx,xxx	
Estimated Non-Federal Cost		xx,xxx,xxx
Programmed Construction	xx,xxx,xxx	
Cash Contributions	xx,xxx,xxx	
Other Costs	xx,xxx,xxx	
Unprogrammed Construction	xx,xxx,xxx	
Cash Contributions	xx,xxx,xxx	
Other Costs	xx,xxx,xxx	
Total Estimated Programmed Construction Cost		xx,xxx,xxx
Total Estimated Unprogrammed Construction Cost		xx,xxx,xxx
Total Estimated Project Cost		xx,xxx,xxx

ILLUSTRATION II-4.2 (Continued)

PY Justification Sheet

For projects which include beach nourishment with no unprogrammed balance to complete, no future non-Federal reimbursement, and where no additional Federal agency is not involved.

Estimated Federal Cost		xx,xxx,xxx
Initial Construction	xx,xxx,xxx	
Periodic Nourishment	xx,xxx,xxx	
Estimated Non-Federal Cost		xx,xxx,xxx
Initial Construction	xx,xxx,xxx	
Cash Contributions	xx,xxx,xxx	
Other Costs	xx,xxx,xxx	
Periodic Nourishment	xx,xxx,xxx	
Cash Contributions	xx,xxx,xxx	
Other Costs	xx,xxx,xxx	
Total Estimated Project Cost		xx,xxx,xxx
Initial Construction	xx,xxx,xxx	
Periodic Nourishment	xx,xxx,xxx	

ILLUSTRATION II-4.2 (Continued)

PY Justification Sheet

For projects which include beach nourishment with an unprogrammed balance to complete, no future non-Federal reimbursement, and where no additional Federal agency is involved.

Estimated Federal Cost			xx,xxx,xxx
Programmed Construction		xx,xxx,xxx	
Initial Construction	xx,xxx,xxx		
Periodic Nourishment	xx,xxx,xxx		
Unprogrammed Construction		xx,xxx,xxx	
Initial Construction	xx,xxx,xxx		
Periodic Nourishment	xx,xxx,xxx		
Estimated Non-Federal Cost			xx,xxx,xxx
Programmed Construction		xx,xxx,xxx	
Initial Construction	xx,xxx,xxx		
Cash Contributions	xx,xxx,xxx		
Other Costs	xx,xxx,xxx		
Periodic Nourishment		xx,xxx,xxx	
Cash Contributions	xx,xxx,xxx		
Other Costs	xx,xxx,xxx		

ILLUSTRATION II-4.2 (Continued)

PY Justification Sheet

For projects which include beach nourishment with an unprogrammed balance to complete, no future non-Federal reimbursement, and where no additional Federal agency is involved (continued).

Estimated Non-Federal Cost			
Unprogrammed Construction			xx,xxx,xxx
Initial Construction		xx,xxx,xxx	
Cash Contributions	xx,xxx,xxx		
Other Costs	xx,xxx,xxx		
Periodic Nourishment		xx,xxx,xxx	
Cash Contributions	xx,xxx,xxx		
Other Costs	xx,xxx,xxx		
Total Estimated Programmed Construction Cost			xx,xxx,xxx
Initial Construction		xx,xxx,xxx	
Periodic Nourishment		xx,xxx,xxx	
Total Estimated Unprogrammed Construction Cost			xx,xxx,xxx
Initial Construction		xx,xxx,xxx	
Periodic Nourishment		xx,xxx,xxx	
Total Estimated Project Cost			xx,xxx,xxx
Initial Construction		xx,xxx,xxx	
Periodic Nourishment		xx,xxx,xxx	

ILLUSTRATION II-4.2 (Continued)

PY Justification Sheet

For projects which include beach nourishment with an unprogrammed balance to complete, no future non-Federal reimbursement, and where an additional Federal agency is involved.

Estimated Federal Cost (CoE)			xx,xxx,xxx
Programmed Construction		xx,xxx,xxx	
Initial Construction	xx,xxx,xxx		
Periodic Nourishment	xx,xxx,xxx		
Unprogrammed Construction		xx,xxx,xxx	
Initial Construction	xx,xxx,xxx		
Periodic Nourishment	xx,xxx,xxx		
Estimated Federal Cost (OFA)			xx,xxx,xxx
Programmed Construction		xx,xxx,xxx	
Initial Construction	xx,xxx,xxx		
Periodic Nourishment	xx,xxx,xxx		
Unprogrammed Construction		xx,xxx,xxx	
Initial Construction	xx,xxx,xxx		
Periodic Nourishment	xx,xxx,xxx		
Estimated Non-Federal Cost			xx,xxx,xxx
Programmed Construction		xx,xxx,xxx	
Initial Construction	xx,xxx,xxx		
Cash Contributions	xx,xxx,xxx		
Other Costs	xx,xxx,xxx		
Periodic Nourishment	xx,xxx,xxx		
Cash Contributions	xx,xxx,xxx		
Other Costs	xx,xxx,xxx		

ILLUSTRATION II-4.2 (Continued)

PY Justification Sheet

For projects which include beach nourishment with an unprogrammed balance to complete, no future non-Federal reimbursement, and where an additional Federal agency is involved. (continued)

Estimated Non-Federal Cost			
Unprogrammed Construction			xx,xxx,xxx
Initial Construction		xx,xxx,xxx	
Cash Contributions	xx,xxx,xxx		
Other Costs	xx,xxx,xxx		
Periodic Nourishment		xx,xxx,xxx	
Cash Contributions	xx,xxx,xxx		
Other Costs	xx,xxx,xxx		
Total Estimated Programmed Construction Cost			xx,xxx,xxx
Initial Construction		xx,xxx,xxx	
Periodic Nourishment		xx,xxx,xxx	
Total Estimated Unprogrammed Construction Cost			xx,xxx,xxx
Initial Construction		xx,xxx,xxx	
Periodic Nourishment		xx,xxx,xxx	
Total Estimated Project Cost			xx,xxx,xxx
Initial Construction		xx,xxx,xxx	
Periodic Nourishment		xx,xxx,xxx	

ILLUSTRATION II-4.3

New Construction Checklist

Division:

Project or Elem Type 1/ Name	Author- ization Act 2/	Total Proj Elem Cost \$000	Total Fed Appn Rqmt \$000	Total IWTF Appn Rqmt \$000	Total Non-Fed Cost \$000	Table II-2.1 Criteria Met Y/N	BCR at Appl Rate 3/	RBR at Appl Rate 3/	Type of Decisn Doc.	Act/Sch Date of Dec Doc Approval Mo/Yr	Act/Sch Date of Exec Br Support Mo/Yr 4/	Sched PPA Exec Date Mo/Yr	First Const Ct Awd Date Mo/Yr
------------------------------------	------------------------------	--	---------------------------------------	--	-----------------------------------	--	------------------------------	------------------------------	---------------------------	--	--	---------------------------------------	---

- 1/ Types:
1. New start specifically authorized project
 2. New start specifically authorized project modification (reconstruction, beneficial use, navigation mitigation, environmental modification)
 3. New start separable element
 4. New start project not needing specific authorization (rehabilitation, deficiency correction, or biological opinion project)
 5. Resumption
- 2/ Does not apply to type 4.
- 3/ Applies only to specifically authorized project, separable element, reconstruction project, rehabilitation project, or navigation mitigation project, or resumption thereof, that produces economic outputs.
- 4/ See page II-2-8, paragraph 2.

FOR ILLUSTRATION PURPOSES ONLY
(To be typed as necessary)

ANNEX III

Operation and Maintenance

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SUB-ANNEX III-1

Operation and Maintenance

Operation and Maintenance Appropriation

III-1-1. Appropriation Title.

a. This annex provides guidance for preparation of the program request for all Operation and Maintenance activities under the appropriation titles: Operation and Maintenance (O&M) and Flood Control, Mississippi River and Tributaries, Maintenance (MR&T) for the Program Fiscal Year.

b. This appropriation funds operation, maintenance, and related activities at the water resources projects that the Corps operates and maintains. Work to be accomplished consists of dredging, maintenance, repair, and operation of structures and other facilities, as authorized in the various River and Harbor, Flood Control, and Water Resources Development Acts.

III-1-2. Transparency in the Budget Submission. Reference GAO report dated April 2, 2010, entitled: "Army Corps of Engineers: Budget Formulation Process Emphasizes Agency-wide Priorities, but Transparency of Budget Presentation Could be Improved" (GAO-10-453). The report addresses Congress' concern that they lack knowledge of the full level of funding resources available to studies/projects when making appropriation decisions on the PY budget request. Specifically, the GAO report supports Congress' claim that the Corps budget presentations (J-sheets) do not provide sufficient information on project "carry-in" funds to enable them to fully evaluate the project budget request. To satisfy Congress' need for full disclosure of project funding in the PY, the O&M J-sheet template has been modified to include estimated carry-in funds that will be available to help accomplish the PY project activities.

SUB-ANNEX III-2

Operation and Maintenance

Project Operation and Maintenance (O&M)

III-2-1. Purpose and Scope. This sub-annex provides policy and general procedural guidance for developing programs for the Project Operation and Maintenance (O&M), and National Emergency Preparedness (NEPP) programs. To provide a general framework and uniform approach for program development and justification, five funding increments have been identified. The various work items have been grouped by Work Category Code (WCC) for purposes of defining the appropriate funding increment. Guidance concerning automated data requirements for submittal of program recommendations is contained in paragraph 15 of the MAIN part of this EC.

III-2-2. Army Budget Guidelines for Operation and Maintenance Projects.

a. Budget priority is given to key O&M infrastructure and the condition and the potential consequences (e.g., economic, environmental, and public safety impacts) of project performance if the O&M activity is not undertaken in the PY, as well as legal factors. Budget guidelines for O&M activities are as follows:

b. Each proposed O&M activity, including those in the MR&T account, will be assigned to one of six program areas: commercial navigation, flood risk management, environment, recreation, hydropower or water supply. For multi-purpose projects (Cat Class 300), the separable activities will be assigned to the program area that they serve. Joint activities are allocated among all program areas served by the project based upon a project-specific allocation formula. See paragraph III-2-10 for joint costs.

c. The economic benefits that will accrue for the dollars spent to improve the level of service must be considered before the O&M activity is included in the budget. An informed judgment must be made to determine the economic impact of the activity. Those with a higher return on investment will receive a higher priority in the budget process. For example, the evaluation for commercial navigation includes the current and five-year average tonnage (coastal) and ton-miles (inland waterways), cost per ton and cost per ton-miles, as well as other factors such as support for critical harbors of refuge and subsistence harbors. For flood risk management, it includes the risk of loss of life or property; for recreation, it includes visitor attendance; and for hydropower, the risk of a generating unit shutdown.

d. Reliability of projects is evaluated to determine a project's ability to adequately perform its intended function in a consistent and dependable manner when field conditions allow. Condition classification guidelines are used to determine overall project condition, with component condition assessments performed to evaluate the condition of individual critical components. Consequence rating criteria are used to determine the impact (dollars, lives, etc.) of reduced availability. The results of the condition and consequence evaluations lead to a risk level based on an established matrix for each program area. The risk of not funding the proposed work is evaluated in the budget year in terms of the intended function. Cost-effectiveness measures are used to determine the lowest cost solution to improve the overall reliability of the project.

e. Public safety is also a factor used in evaluating O&M activities. A proposed work package is given greater consideration if its purpose is to reduce the risk of a failure that could result in loss of life. For commercial navigation, other factors include whether the harbor is a critical harbor of refuge, supports other Federal requirements such as the U.S. Coast Guard search and rescue or national security, or supports a subsistence harbor.

f. O&M work to address a significant environmental concern is evaluated based on its benefits per funding amount. Those O&M activities that reduce the risk of a significant adverse environmental impact are given a higher consideration in the budget.

g. Projects with O&M-related legal requirements are also given a higher consideration in the budget, e.g., projects with requirements to address Indian tribal rights or whose operation involves ongoing mitigation needs.

III-2-3. O&M Program Development Principles.

a. General Philosophy. The Operation and Maintenance program path forward incorporates approaches to better reflect the performance outputs of the projects and a management philosophy that looks at the inter-relationships of the projects across business lines, within systems and for a long-term horizon. The key components of this approach include:

- Systems approach, the linking of projects by Systems
- Mission performance
- Risk and Reliability, condition and consequences
- Five Year Development Plan
- Infrastructure Management Plans

(1) These areas of interest have been addressed in prior budget ECs but more and better use of such tools is needed to realize efficiencies of employing these management tools in our budgeting and program execution. Our program plans must be able to be rolled up and examined holistically from a system and/or regional perspective to ensure consistent reliability, goals, mission execution, lowest sustainable investment levels and acceptable or shared risk levels are considered. The goal is to place all the projects on the same basis for the establishment of priorities based on benefits and risks.

(2) The O&M program should be developed from an asset management perspective which incorporates an emphasis on long range planning and return of value to the nation through the 10 year funding stream and Infrastructure Management Plans. The 10 year funding stream represents a comprehensive assessment of total investment requirements from all appropriation accounts (Investigations, Construction and Operation and Maintenance) while the Infrastructure Management Plans are currently focused on O&M program requirements. It is in the national interest for the Corps of Engineers to ensure reliable mission achievement at our operating projects in order to return value back to the nation. The projects were built to meet a national need through prioritized investment of Federal funds. In recognition of this, the Corps of Engineers maximizes the value returned to the nation by ensuring reliable performance, and maximum sustainable operating life at the lowest sustainable level of investment.

(3) The 10 year funding stream and Infrastructure Management Plans represent the collective technical judgment of the Operation and Maintenance Community of Practice, Business Line Managers, and the Engineering & Construction Community of Practice with regard to optimal asset replacement cycles, and best operation and maintenance practice. Investment requirements are informed by asset condition assessments and failure risk assessments which affect estimates of remaining equipment life, future maintenance and repair requirements and re-capitalization plans. Equipment condition, failure risk and replacement cycles affect the O&M requirements and should be accounted for within Infrastructure Management Plans. Asset life extension through prudent O&M practice can provide return to the nation beyond the originally expected life of the project and serves the public interest. In addition, ensuring that

our stewardship of these assets is accomplished at the lowest sustainable investment level maximizes the net value returned from our missions.

(a) Established Criteria is defined as the standard with specific guidelines which are formulated by the Administration which clarify and describe "justified levels of service."

(b) Justified Level of Service is defined as the delivery of a supportable and defensible amount or degree of project benefits consistent with authorization, use, and administration policies.

(c) Lowest Sustainable Investment is defined as the lowest investment level that a prudent manager would select, balancing between short and long term economics and considering overall availability of resources. Sustainability is key in that we still ensure the project meets or exceeds project life expectations and meets or exceeds changing environmental requirements for compliant operation.

b. Budgeting by Systems. The program is to be formulated based on performance goals and objectives and risk-based indices (details can be found in the business line Appendices). The O&M plan in the past grouped individual projects by "basin codes" for geographically defining projects into regions. The Systems data will still be used to further refine the collection into systems that are functionally based. The hierarchy of order are the Systems with the Hydrological Unit Code (HUC) sub-regions assigned to the Systems. The set of Systems has been developed to consider the multiple purpose aspects of the O&M program. The 21 USGS Regions presented in FY07-08 are too broad for this purpose. See TABLE III-5 -1 for the O&M Systems that will be used in the PY. We will continue to assign projects to a HUC Sub-Region using the 4-digit code although the budget is presented project by project.

(1) The Systems have been developed using a standard, rational, logical approach, considering all business purposes.

(2) Each System has the HUC sub-regions assigned. Some HUC sub-regions are included in more than one System. All projects in a HUC sub-region do not have to be assigned to one System, but should be assigned to the System that it belongs.

(3) The end result is a set of Systems for O&M, with the HUC sub-regions and Corps of Engineers O&M projects assigned.

(4) "Regions" have also been associated with the Systems to allow greater aggregation.

c. Out-Year Plans. Basic design criteria for water resources improvements generally include estimates of repair and replacement frequency and effective project life. Major costs such as spillway gate replacements, navigation lock gate replacements, hydroelectric power generator rewinding and turbine replacement certainly need to be anticipated. Construction completion schedules for additional projects coming on line also need to be incorporated within O&M budgets (in some cases re-capitalization replaces equipment with better technology that requires lower O&M needs, but may not be as robust and therefore shortens re-capitalization cycles). However many projects in the Corps inventory are long past their design life. A strategy to formulate long range maintenance funding plans must take into account unforeseen risk from fluctuations in weather conditions such as hurricanes and other major storms which often impose sudden, unanticipated requirements for maintenance and service restoration. Prediction of operational requirements requires consideration of equipment condition assessments, shifting public needs or areas of emphasis, geographic shifts driven by regional trends in commercial activity and other economic factors. And, finally, national priorities for federal investments are subject to frequent and radical fluctuations. Accordingly, the 10 year funding stream and Infrastructure Management Plans must not only be developed as a project-specific long-range plan, but also be based on sub-plans

recommended by business lines. In addition, these project plans must be rolled up and examined holistically from a regional and/or system perspective to ensure consistent reliability goals, mission execution, lowest sustainable investment levels and acceptable or shared risk levels are taken into consideration.

d. Mission and Systems Performance. O&M budget and system performance plans must account for performance output dependencies. For example, closure of one lock in a system would affect other lock passages or reservoir operations on one project could affect other downstream reservoirs. Consideration of systems in the operation and functioning of our projects will achieve better service to the public.

e. Performance-Based Programming.

(1) Performance measures are described in the Appendices for individual Business Lines. Performance data will be entered in OFA for each budget item for which funds are requested. In addition, in accordance with paragraph III-2-13, each budget item will be assigned to a Business Line increment. The districts may cite different performance levels in the funding arguments for different budget activities. For example, funding of the highest priority budget item in the Business Line_initial increment may be required to attain 80 percent availability; funding of the next highest priority budget item in a subsequent Business Line increment may enable the project to attain 95 percent availability

(2) Relative Risk Matrix (RRM). Project performance is not a consistent assured output. Project conditions have inherent risk and reliability that affect the performance outputs. Our budget packages require an assignment of a risk evaluation. The risk and consequence evaluation methodology are described in the business line appendixes and should be based, similar to that done for Dam Safety analyses, in the evaluation of facility conditions (risk) against the consequence of failure (consequence or performance). A Relative Risk Matrix allows for a consistent approach to risk/consequence. Work packages to preclude failure of high consequences would be readily apparent. This matrix would assist in the prioritization of work/budgeting. The analysis is to propose common, risk-based economic and life safety metrics for projects that protect life and property. These should be consistent with the principles of the Dam Safety Program. The goal is to place all the projects on the same basis for the establishment of priorities based on benefits and risk.

(3) Risk-Based Condition Assessments. Risk-based and reliability condition assessments are described in the Business Line appendixes.

f. Infrastructure Management Plans. The Infrastructure Management Plan (IMP) brings the management tools above together in laying out prioritized risk and performance based work over a short and long term to achieve desired end-state performance metrics. The synergy of system development could require budgeting certain tasks in the same timeframe. For instance dredging contracts for projects A and B could be advertised together if conducive to a joint solicitation to obtain better bids or electrical panels in two nearby reservoirs could be more optimally scheduled. The management plans should also lay out periodic dredging requirements that can be projected for out-year budgets to assure annual system outputs and stakeholder buy-ins (recognizing budgetary rules and inability to commit to future budgets). This could identify a higher budgetary priority and more system outputs for lower use projects that require infrequent investments. For example, a project with 400,000 tons moved annually but dredged every five years could be a better investment than a project with higher annual tons but dredged each year. For example, for Navigation the plans would include all harbor maintenance work that is justified by the resulting commercial transportation savings or by benefits to subsistence use, public safety, or public transportation as described in the Navigation appendix. The IMP is to cover the period

PY through PY+4 and be modified annually for subsequent budget submittals. The Infrastructure Management Plan will be consistent with the five year funding stream including the PY Budget Request. The Infrastructure Management Plan will be based on sub-plans developed by Business Line Managers for six primary missions (Flood & Storm Damage Reduction, Navigation, Environmental Stewardship, Water Supply, Hydropower, and Recreation). The Infrastructure Management Plan should be jointly developed and improved within the Operations Community of Practice. The Infrastructure Management Plan must reflect sound engineering, construction, operation and maintenance state of practice (reliability centered maintenance, condition assessments, equipment mortality studies, predictive maintenance, etc.) and continually honed to achieve the lowest sustainable O&M investment level. Accelerated replacement cycles within the five year funding stream may affect O&M needs within the Infrastructure Management Plan (i.e. replacement versus continuing high outage and repairs on failing equipment). The O&M budget submission should be consistent with the 10 year funding stream and the five year Infrastructure Management Plan. The ten year funding stream and five year Infrastructure Management Plan both reflect planned investments for one range of periods.

(1) Infrastructure Management Plans for all Systems should have been prepared during the FY09-12 budget cycles. All existing IMPs will be updated each PY using the template included in this EC. Any IMPs not previously prepared in accordance with the budget development guidance should be prepared in the PY.

(2) IMPs will be developed for the O&M Systems included in this EC. Each IMP will identify the current performance level or target and the five year end-state performance target. Ultimately, the overall end-state performance could be beyond the five-year planning horizon. For example, it may take more than five years to reach the target of reducing unscheduled closures at a navigation lock. The IMP should consider the various business activities performed within the System. Each Business Line will have a section to itself, and the IMP will have a summary section addressing comprehensive O&M activities. The relationships of the different business lines to each other should be addressed. For example, the dam at a project not only serves to create a navigation pool, but it is also used for municipal water supply and for water-based recreational opportunities. The IMP will include the major assets or features of the System and the relationship of the assets to the business lines. It will include the performance metrics and targets for the different business lines. The IMP will identify the risk and reliability factors for the major assets based on the different business lines condition assessments, with the condition and consequences addressed. The IMP will address different funding scenarios, such as a likely level to maintain the current condition, an optimal level to begin addressing the most critical items to begin increasing performance, and a "recommended" or elevated level to address critical condition needs, to buy down risk at a faster rate. The funding will be tied to achieving the targeted end-state for performance for the five years. The IMP will include stakeholder coordination and expectations. The MSCs will coordinate with other MSCs if required. For example, the IMP for the Mississippi River should address the relationship and impacts of the Missouri River as it is a provider of water flow to that waterway.

(3) Individual Infrastructure Management Plans for each System will be retained and updated annually at the respective district and MSC level, and will be readily available for forwarding when requested by HQUSACE.

ILLUSTRATION III-2.1

Infrastructure Management Plan (Format Template)



Infrastructure
Management Plan

III-2-4. Program Development -- Work Category Codes.

a. The Civil Works O&M program development process reflects the Corps compliance with the requirements of the Government Performance and Results Act of 1993 (GPRA). Therefore, the program will be submitted in a form that reflects the primary business processes functions established for the O&M mission. These Business Lines are Navigation, Flood Risk Management, Hydropower, Environmental Stewardship, Recreation and Water Supply. In addition, each budget activity will be tied to a business performance measure and goal for the program year. The Work Category Codes (WCCs) are aligned by the operation and maintenance areas and by the primary Business Lines within the operations or maintenance areas.

b. Tables are provided in Sub-Annex III-4 to aid in developing budget activities aligned with appropriate Business Lines, WCCs and sub-WCCs.

(1) TABLE III-4-1 lists WCCs and sub-WCCs in numerical order.

(2) TABLE III-4-2 lists WCCs and sub-WCCs in alphabetical order.

(3) TABLE III-4-3.a. is a matrix that displays the operations Work Category Code structure by each Business Line .

(4) TABLE III-4-3.b. is a matrix that displays the maintenance Work Category Code structure by each Business Line.

(5) Section III-4-4. describes/defines each WCC for operations activities.

(6) TABLE III-4-5. describes/defines each WCC for maintenance activities.

c. Use of Work Category Codes to Program for Business Lines. The basic Work Category Codes structure is listed as follows:

601XX Operation for Navigation Function
602XX Operation for Flood Risk Management Function
603XX Operation for Hydropower Function
604XX Operation for Environmental Stewardship Function
605XX Operation for Recreation Function
606XX Joint Activities for Operations (Cat/Class 300 projects only)
607XX National Emergency Preparedness Program Function
608XX Operation for Water Supply Function
611XX Maintenance for Navigation Function
612XX Maintenance for Flood Risk Management Function

613XX Maintenance for Hydropower Function
614XX Maintenance for Environmental Stewardship Function
615XX Maintenance for Recreation Function
616XX Joint Activities for Maintenance (Cat/Class 300 projects only)
617XX Reserved
618XX Maintenance for Water Supply Function

d. Operations Work Category Codes (601XX-608XX). All operations features should be closely examined to minimize the required investment levels in order to reduce costs wherever possible. While there may be some cost fluctuation in investment needs among individual projects, the goal is to reduce, or at least constrain, the aggregate total growth of operations costs in the MSC to no more than inflation. Efficiency improvements should be employed to reduce operations costs, where possible.

e. Maintenance Work Category Codes (611XX-618XX). Prudent stewardship of available resources is essential to preserve the existing infrastructure. The growing and aging inventory of projects with a resources constrained environment necessarily dictates that resources be concentrated on the most prudent and necessary maintenance features of the program to the maximum extent possible. Just as with operations, the maintenance features should be reviewed and efficiency measures employed to reduce investment needs to the lowest sustainable level.

f. WCC Links to Cat/Classes and Business Lines.

(1) A Cat/Class 100 Navigation project would have all of its primary purpose budget activities programmed under the 601XX and 611XX WCCs. These WCCs will identify the total navigation costs for the Navigation Business Line at this project. Separable costs specific to the Recreation and Environmental Stewardship Business Lines would be charged to the WCCs for those business lines.

(2) A Cat/Class 200 Flood Risk Management project with Recreation and Water Supply as authorized project purposes would have all its primary purpose budget activities programmed under the 602XX and 612XX WCCs. All Recreation-specific budget activities would be shown in 605XX and 615XX WCCs for Recreation, as appropriate. All Water Supply-specific budget activities would be shown in 608XX and 618XX WCCs for Water Supply, as appropriate. Work Category Codes 60210 and 60221 will no longer be used for Water Supply activities.

(3) A Cat/Class 300 Multiple Purpose Project with Power will have its specific Hydropower budget activities shown under the 603XX and 613XX WCCs. Budget activities representing specific activities for Navigation, Flood Risk Management, Recreation, Environmental Stewardship, or Water Supply will be budgeted under the WCCs for those specific business lines.

(4) Joint Activities (606XX and 616XX). Work which cannot be assigned to a single business line will be shown as joint costs and will be coded as an "OJ" or "MJ" in the Phase Activity code. This allows Joint Activities at a project to be entered and managed as a single budget activity. The total budgeted amount for Joint Activities can later be "displayed" across specific Business Lines in accordance with the statutory O&M joint cost allocation formula. This "display" of joint costs will not result in a single budget activity being split into multiple activities across multiple business lines. However, this "display" of programmed costs allows the Corps to identify the specific costs for Hydropower O&M, plus that portion of the costs for Joint Activities allocated to Hydropower. This is important because the Federal Power Marketing Administration generally reimburses the Treasury for the power costs incurred by the Corps, which includes the portion of Joint Activities that can be allocated to Hydropower. Following is an example of a joint budget activity at a Cat/Class 300 project: During the programming process, a roof

repair budget activity for an administration building at a multipurpose project would have the entire programmed cost entered under a single budget activity under WCC 61610. (Note: Power cost repayment accounting is a separate activity and should not be confused with the programming and execution WCC procedures). Districts will use P2-Primavera Project Manager to assign the appropriate Work Category Codes to request funds for joint operations activities and for joint maintenance activities at Cat/Class 300 multipurpose with Hydropower projects ONLY. Districts must ensure that joint activities are only assigned to the Hydropower Business Line in P2. The districts must also ensure joint activities are assigned the appropriate phase code (OJ or MJ) in P2 and are placed in the appropriate increment.

III-2-5. O&M Dam Safety Program. Most dam safety related work items are below. Site specific conditions must be considered when determining costs for each project, following collaboration between the District Dam Safety and Operations experts. The table is a guide to cover many recurring dam safety program activities. However, it is not a comprehensive list and additional dam safety work items may be programmed.

a. O&M funded dam safety actions shall be prioritized based on risk. Budgeted dam safety items consider the performance history, potential failure modes, and severity of adverse consequences associated with each operating project.

b. Routine dam safety monitoring, inspections, instrumentation data collection, instrumentation maintenance, surveys, training, Emergency Action Plan Updates, spillway and outlet works gate lubrication and testing, and dam safety exercises shall be budgeted to ensure safe operations. A higher standard of care is warranted for projects that have known dam safety deficiencies, or because of their inherent characteristics (reservoir size, construction methods, geographic setting, etc.) pose unacceptable life safety risks to the public. Implementation shall be reported to HQ quarterly via the Dam Safety Program Management Tools. Care must be taken to properly budget using existing Work Category Codes (WCCs) to allow accurate tracking of routine dam safety budgeting and expenditures, severable from the overall project operating costs.

c. Dam Safety Interim Risk Reduction Measures (IRRM).

(1) Plans and Approved Interim Risk Reduction Measures. Effective 31 May 2007 USACE issued new guidance to develop IRRM Plans for Dam Safety Action Classification (DSAC) I, II, and III projects, and implement actions to reduce the probability and consequences of catastrophic failure to the maximum extent that is reasonably practicable while long term remedial measures are pursued. Funding for IRRM Plan preparation and implementation will be from the O&M account for the project. Critical Dam Safety Interim Risk Reduction Measures, including updating Emergency Action Plans and Conducting Emergency Exercises will be included and prioritized based on the DSAC classifications and program implementation guidance. The IRRM work will be recorded in the proper Operation WCCs or Maintenance WCCs, depending on the nature of the activity.

(2) Plans and Approved Dam Safety Interim Risk Reduction Measures will be identified in budget submittal as a separate work package. IRRM work packages will be identified with the Phase Activity Code of SI. The IRRMs could be routine and/or non-routine activities and should be budgeted in Increments 1, 2, 3 or 4 as appropriate to address deficiencies that pose unacceptable risks to public safety. Water Control Plan and Emergency Action Plan Updates may be considered as critical Interim Risk Reduction Measures. Examples of routine and non-routine are: Increased monitoring for critical failure mode is a routine activity (Increment 1) while stockpile emergency materials for critical failure mode is a non-routine activity (Increment 2 or 3).

(3) Specifically for the Dam Safety Program, only critical routine and cyclical dam safety activities

to ensure USACE meets minimum fundamental safety standards as determined by the District Dam Safety Officer may be included in Increment 1. Non-critical dam safety activities shall be included in Increments 3 or lower. Priority and costs for the tasks vary for each project, due to differences in project age, size, reservoir operations, construction methods, features and performance history. Consequently, each District is responsible for developing program costs based upon their unique projects.

(4) Critical minimum routine activities may include the following as applicable:

(a) Monitoring and Evaluation; Program Coordination, Instrument Data Collection and Management, Data Review and Analysis, Instrument Maintenance and Calibration, Survey Monitoring Data Collection and Management.

(b) Inspections; Annual Inspections, Periodic Inspections and Assessments, Special Inspections for Project Features (e.g. Hydraulic Steel Structures, Scour surveys, and stilling basin inspections).

Modified Periodic Assessments (PA), which expands the scope of currently scheduled Periodic Inspections (PI), were initiated in FY10. Approximately one half of the PIs scheduled for FY14 will be budgeted as Modified PAs and will include labor and development costs to conduct a Potential Failure Mode Analysis (PFMA). For initial PAs, Districts must distinguish the projects selected for PIs in their remarks, and budget for additional data collection and technical and administrative support as part of the PI costs. The district is responsible for funding the PFMA and PI activities for their district PI Team. The Risk Management Center will provide labor and travel funding for the Risk Facilitator and Risk Cadre member who are both independent of the district shall be utilized to lead PFMA activities.

(c) Routine Dam Safety Maintenance; Relief Well Maintenance, Drain Cleaning, Vegetation Control, Lubrication of Mechanical Equipment.

(d) Emergency Preparedness; Annual update of EAP notification sub-plans, Periodic updates to EAP's as needed, Dam Safety Training for the Operating project personnel every five years, Emergency Exercises.

d. Operating projects which have been evaluated under the Screening for Portfolio Risk Assessment (SPRA) process shall identify the Dam Safety Action Classification assigned by HQUSACE. See Annex II, Construction and Flood Control, Mississippi river and Tributaries, Sub-Annex II-3, Safety of Dams Projects for DSAC definitions.

List of Dam Safety Work Items/Activities:

- Minimum Instrumentation Data Collection & Evaluation
- Supplemental Instrumentation Data Collection & Evaluation
- Emergency Action Plan Notification List Updates
- Emergency Action Plan Revisions
- Dam Safety Emergency Exercises
- Interim Remedial Measures Planning (e.g. Coordination for Operating Restrictions)
- Inundation Map Updates
- Seismic safety Re-evaluations
- Hydrologic Reevaluations
- Hydraulic Steel Structure Inspection & Testing
- Periodic Inspections (PI)
- Physical Surveys in Support of PIs
- Stilling Basin Inspections in support of PIs

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Sedimentation Studies
Tainter Gate Testing
Dam Safety Training
Water Control Management Studies
O&M Manual & As Build Drawing Updates
Project Security Plans
Instrumentation Repairs & Replacement
Foundation Drain Cleaning
Critical Relief Well Maintenance
Other Relief Well Maintenance
Dam Safety Program Tool data Updates
Screening for Portfolio Risk Assessment

III-2-6. O&M Bridge Program. Bridges are vital to the nation's highway and transportation systems, especially high-level highway bridges over waterways and canals. Bridges are also mission critical for flood risk management projects as well as for public access in our recreation and environmental stewardship lands.

a. Bridge Operational Condition and Risk. The U.S. Army Corps of Engineers, through Asset Management, has been developing condition and risk assessment methodologies to provide the appropriate level of accuracy and rigor to support risk informed investment decisions during the budget development process. A universal assessment methodology is guided through the development of Operational Condition Assessments (OCA) and Operational Risk Assessments (ORA) for various business lines and bridges. Results from the OCA/ORA assessments include inventory and condition information as well as condition classification values (A, B, C, D or F), consequence category values (I, II, III, IV or V), relative risk values (1-25), and a relative risk matrix index (1-5). These values will be used to identify and prioritize activities and budget packages within each business line. CEBIS will be implemented in developing the FY14 budget by each business line with non-routine bridge requirements. For all business lines using a risk informed methodology for prioritization of requirements, the relative risk matrix will be used as determined by the guidelines and process in CEBIS and QMS (see below). The relative risk values are determined by cross referencing five levels of consequence category values on the vertical axis of the table with five levels of condition classification across the horizontal axis at the top of the table, as seen in TABLE III-2-2A. These values can be directly converted to a relative risk matrix index of 1-5 that will correlate to a Bridge Safety Action Classification (BSAC) level of (I-V) as seen in TABLE III-2-2B. This is for consistency with other on-going safety program risk assessments, such as the Dam Safety Action Classification (DSAC), codes of (I-V) which are used to prioritize program activities or corrective action for deficiencies. In TABLE III-2-2B, a value of 1 (I) is the most critical need and 5 (V) is a non-critical need.

(1) The guidelines document for the Bridge OCA/ORA Process will be functionally programmed into CEBIS for use by inspection Team Leaders as well as the full documentation provided in the CEBIS Bridge Reference Library (BRL) in the "Criteria/Guidance" folder. CEBIS is accessed at: http://caroli.usace.army.mil:7780/CEBIS/cebis_2pub.pub_utl.main and requires ACE-IT permission in UPASS.

(2) For non-CEBIS user, the Bridge OCA/ORA process will be added as an official USACE Process on the Quality Management System (QMS) site: https://kme.usace.army.mil/CE/QMS/Pages/Welcome.aspx?Region=HQUSACE&Group=National_x0020_Process_x0020_Number

Table III-2-2A

Relative Risk Ranking Matrix For Bridges

		CONDITION CLASSIFICATION				
		F	D	C	B	A
CONSEQUENCE CATEGORY	I	1	2	6	10	15
	II	3	5	9	14	19
	III	4	8	13	18	22
	IV	7	12	17	21	24
	V	11	16	20	23	25

Table III-2-2B

Relative Risk Index / Bridge Safety Action Classification Matrix

		CONDITION CLASSIFICATION				
		F	D	C	B	A
CONSEQUENCE CATEGORY	I	1(I)	1(I)	2(II)	2(II)	3(III)
	II	1(I)	2(II)	2(II)	3(III)	4(IV)
	III	2(II)	2(II)	3(III)	4(IV)	4(IV)
	IV	2(II)	3(III)	4(IV)	4(IV)	5(V)
	V	3(III)	4(IV)	4(IV)	5(V)	5(V)

III-2-7. Cultural Resources. (NAGPRA/Curation). Funding requirements for activities to ensure compliance with Section 5 – 7 of the Native American Graves Protection and Repatriation Act (NAGPRA) (PL 101-601) and with 36 CFR Part 79, Curation of Federally-Owned and Administered Archeological Collections, will be budgeted as a Remaining Items activity by HQUSACE thus should not be included in the general MSC program submittal. Specific guidance on program year activities will be provided in annual guidance by the Mandatory Center of Expertise (MCX) on how and when to make requests for funding of activities to ensure compliance with Section 5 – 7 of NAGPRA and with CRF Part 79. All of the requirements will be aggregated by the MCX into the program as a separate line item. All annual maintenance curation costs and cultural resource management costs, other than NAGPRA, should be included in the appropriate Work Category Code, within project work packages.

III-2-8. Special Recreation Use Fees (SRUF). Funds generated from collecting recreation use fees are returned in O&M appropriations for operation, maintenance and improvement of recreation sites and facilities. The construction of new recreation facilities or renovation and/or improvement of existing facilities may be accomplished with these funds if the goal of providing quality public recreation experiences with the most cost efficient management of water resource development projects can be met. Overall budgetary limitations should be carefully considered in determining what activities will be financed with these funds. Routine operation and maintenance of existing sites and facilities should not be compromised to finance new construction or facility improvements. SRUF funded work previously programmed in WCC 60512 and 61512 should now be programmed in WCC 60511 and 61511.

III-2-9. Special Interest Items. In order to highlight specific activities, special interest items are defined in each Program Year. HQUSACE may add to or delete special interest items as needed in each Program Year. Special interest items are not additional funding levels and any given budget activity may fall into all, none, or any number of special interest item categories. Activity codes are added to P2- Primavera Project Manager for each special interest item required for the PY budget. Special interest items are identified for the PY in TABLE III-2-2C below.

TABLE III-2-2C	
Special Interest Items	
	N/A
	N/A

III-2-10. Joint Activities – Joint Costs. Joint Activities are activities that cannot be assigned to one specific Business Line at O&M multipurpose projects with power (Cat/Class 300). Joint Costs are the costs assigned to Joint Activities. At non-Cat/Class 300 (non-power) projects, activities will be included in the project's predominant business line.

a. The description of individual joint cost work packages must be specific in nature and written in clear and concise terms. The use of generic language is unacceptable and may result in a lower ranking for the work package. Work that is critical to the project must be clearly identified and ranked higher in the budget. Joint work packages will be well justified to allow proper consideration in the evaluation process.

b. Joint work packages will compete with the work packages of all the business lines in the ranking of the overall O&M program for the MSC.

c. The Hydropower Business Line will contain hydropower specific activities and all business line joint activities for Cat/Class 300 projects. In this regard, all joint cost work packages will - for convenience only - be assigned to the Hydropower Business Line when developing the PY district/MS total O&M budget. However, it is imperative that only the HYD portion of the joint cost packages submitted under the HYD business line be considered in the MSC HYD business line budget – NOT the total for all joint cost packages. Each business line MUST accept its portion of joint costs into its own business line budget even though all joint cost packages are assigned to the HYD business line.

(1) The Hydropower Business Line Managers at each level will manage all Cat/Class 300 joint activity budget items to ensure accountability of joint activities across business lines. A joint cost funding level will be established by HQUSACE business line managers that represents the program's sum total of the O&M joint activities across all business lines.

(2) Each MSC is responsible for ensuring that the most critical O&M joint activities are included in the Initial Increment at Cat/Class 300 projects. These joint activities will be ranked separately by the Hydropower Business Line Manager with input from other Business Line Managers as appropriate. Before submittal of the O&M budget to OMB, joint costs will be distributed to individual business lines based on the current statutory cost allocation table to enable HQ Business Line Managers to finalize individual business line PY budgets.

(3) Allocation of costs for Joint Cost activities - The joint cost allocation process used in HQ to distribute budgetary (work package) funding among the various project purposes (business lines) involves the use of the established (statutory) Cost Allocation table for multi-purpose projects as contained in OFA. The business line percentages used in the table for each project correspond to the cost allocations contained in the corresponding Chief's Cost Allocation Report for that project. The percentages in the Cost Allocation Table are applied to the total joint cost work package budget amount and the individual business line budget amounts are thus determined. For example – if the Cost Allocation Table shows a project with a cost allocation of: NAV = 25%; FDR = 25%; HYD = 25% and WS = 25% and the budgeted amount for the joint cost work package was \$1000 (total), then each business line above would receive \$250 as its budgeted amount of the joint costs.

III-2-11. O&M Power Costs in the Pacific Northwest.

a. Pursuant to the 5 December 1997 Memorandum of Agreement between the Department of Energy, acting by and through the Bonneville Power Administration (BPA), and the Department of the Army, entitled "Direct Funding of Power Operations and Maintenance Costs at Corps Projects", BPA will direct fund O&M Power Costs for Corps projects with hydroelectric power generation facilities for which BPA is the designated Federal power marketing agency. O&M Power Costs include hydropower-specific O&M costs, the power portion of joint O&M activities, and power capital items.

b. The Northwestern Division will prepare an Annual Power Budget in conjunction with the Bonneville Power Administration that specifies O&M Power Costs for each applicable project. A five year Power Budget which includes annual power budgets for five consecutive fiscal years will be developed in conjunction with the Bonneville Power Administration by the Northwestern Division for purposes of inclusion in the BPA rate base and to fund the Corps O&M power costs.

c. O&M Power Costs in the Pacific Northwest will be entered into P2-Primavera Project Manager under a separate type of funds classification (Bonneville Power Appropriation), and submitted concurrently with the O&M program submittal to HQUSACE, in the appropriate funding increment. In addition, budget activities for joint activities will be split into two budget activities to reflect the appropriate allocation of joint activity costs between the O&M and O&M Power Cost appropriations. See TABLE 2 in the MAIN part of this EC for budget submission dates.

d. Budget activities for the power portion of large capital joint activity costs require specific dispensation from ASA(CW) to be funded within the O&M appropriation.

III-2-12. O&M Program Budget Development.

a. O&M Budget Activities. In developing a budget activity, all costs required to accomplish the work must be included. This includes the cost of the primary activity as well as all supporting activities that are required to accomplish the work. For example, a dredging budget activity should contain the cost of the actual dredging process plus the costs for before and after surveys, engineering and design, real estate requirements, contract supervision, water quality monitoring, etc. In this way, a complete and stand-alone decision package is developed. This process applies to all WCC-based budget activities.

b. Operation vs Maintenance. A continuing effort is required to standardize designations of budget activities as either operation or maintenance-related. It is the nature of the work itself which dictates where it should be placed. To provide uniform guidance for the appropriate placement of such budget activities within operation or maintenance Work Category Codes, detailed definitions of the

operation and maintenance elements of each WCC are provided in TABLEs III-4-4 and III-4-5. In addition to these definitions, the following general principles should be applied:

(1) Operation budget activities may include work that is of a recurring nature, and is integral to continued project operation. Examples include things such as custodial services, removing ice and snow, debris, trash, cleaning; replacing lighting fixtures, routine testing of lubricating and hydraulic oils; replacing packing in valves and glands; replacing electrical brushes and touch-up painting, etc. This work is performed on an annual basis, typically by hired labor or small contract (service contract, purchase order, etc.).

(2) Maintenance work, specifically, non-recurring and non-routine maintenance, should be placed under maintenance Work Category Codes. Annual recurring costs for non-recurring work items, (e.g., minor roof repairs one year, placing signs and markers, painting of guardrails, wall striping, repainting comfort stations, etc.), belong under maintenance Work Category Codes.

c. O&M Activity Justifications.

(1) In a performance-based program, every budget activity must relate to an improvement in performance or results, that is, in the outputs or outcomes created by the Business Line. These linkages and the necessity of the budget activity to performance goal attainment must be made clear to all levels of reviewers, both internal and external (e.g., OMB or Congress) to the Corps. The impacts of the budget activity on specific areas of customer service, project performance, infrastructure investment, personnel or public safety, the local community, statutory requirements, or other considerations should be included in the funding argument if not covered in the performance measures.

(2) Care should be taken to write all descriptions and funding justifications clearly and concisely so that the reader can understand and appreciate the work for which funds are being requested. Well-written justifications are essential to convince reviewers who are not familiar with the work to fund your needs.

(3) CRITICAL Work Activities/Packages. See the Glossary at the end of this EC for the definition.

d. Rank Assignments.

(1) Work Groupings. The smallest increment of work for O&M programming purposes is a work item or task. Examples of tasks are trash pickup at a recreation area, mowing a levee, or painting a lock gate. In P2 tasks at the same project and within the same Work Category Code may be grouped into budget activities if they are of comparable criticality or priority, for example, maintenance of 15 of 30 recreation sites during May through September or painting lock gates at locks 1-4.

(2) Rankings. As described in paragraph III-2-12.e., budget activities in each Business Line will be assigned to a maximum of five Business Line increments. Ranking of individual budget activities will be assigned by the district and MSC across all Business Lines. For each project all Increments 1 and 2 budget activities will be ranked higher than the budget activities in the next-added Business Line increment. A budget activity in the next-added increment for a high value project/activity can be ranked higher than the initial increment budget activities at less valued projects/activities. To better ensure appropriate rank, each budget activity will contain a code indicating the Business Line increment where the budget activity belongs.

(3) Final Rankings. Development of final rankings should be an iterative process that employs all the knowledge and support tools available to the decision maker. In developing the national program, HQUSACE will generally rely on the final rankings assigned by the MSC in OFA provided they meet the business line increment definitions and overall policy. It is therefore important that rank assignments be made in accordance with the relative importance of the work so as to ensure that the highest priority activities can be accomplished within available resource limits. Ranking of work items within the business line increments will follow the priorities for operation and maintenance work items. Each budget activity should be assigned to the appropriate Business Line increment based on consistent and objective application of the Business Line increment definitions and performance measures established for the applicable Business Line. See Business Line Appendices for guidance on ranking budget activities for each program.

(4) Special care should be taken to ensure that all resource requests are economically justified. If sufficient study detail is not yet available to develop appropriate funding recommendations, program requests should be held to levels below historic amounts. Major repairs not essential to structural integrity in the PY should be postponed. Operation activities should be constrained to the lowest level possible.

(5) Unfunded Requirements.

(a) Definition. Unfunded Requirements are defined as those unfunded operation and maintenance work items which are required in the PY in order to provide reasonable assurance that project performance goals can continue to be met and that undue risk of failure is avoided. It may occur in any Business Line and is not limited to infrastructure-related budget activities. Deferred maintenance of a project feature or deferred update of a project exhibit for instance, may both be valid examples of unfunded requirements.

(b) Rational. All requirements within district capability should be included (i.e. they must be executable within the Program Year). District and MSC offices are encouraged to develop complete operation and maintenance programs so that they might better anticipate future program management requirements. It is important that all justified requirements funded or unfunded, be identified, so that in the event that additional resources are made available for infrastructure preservation, appropriate funding prioritization decisions can be made about budget activities which may originally have appeared to be below the funding level. Identification of unfunded requirements is critical in order to understand and quantify the condition of the water resources infrastructure, and the quality of associated services. It is equally important that the identified unfunded requirements be a realistic assessment of requirements, and not a "wish list" of nice-to-have enhancements.

e. Budget Increments. The Corps Civil Works O&M program will be developed in increments by Business Line from a zero base. The proposed work included in each increment will be evaluated against the performance criteria specified for each Business Line. The initial increment should provide the greatest benefit for the investment consistent with performance measures. Each subsequent increment should be ordered by the performance benefits to be gained versus the cost of the work contained in the increment.

(1) Definitions of Increments.

(a) Increment 1: Only critical routine activities can be included in this increment. Critical cyclical routine activities may be included in Increment 1. Routine activities are those that have been conducted every year for at least the last five years, for example the operation of a powerhouse or are required to meet legal mandates, environmental (ESA/Biological Opinion) requirements, authorized mitigation

requirements, and historic preservation. Cyclic activities are those that are required on a regular basis, but not each year. An example of a cyclic routine activity would be projects where dredging is needed on a regular recurring basis, but not every year, e.g. dredging is needed only every two years. Increment must be performance based and integral with a study/project with high outputs and consistent with ranking.

(b) Increment 2: Only critical non-routine activities may be included in this increment. Critical non-routine activities are those that must be accomplished to insure project safety, and critical maintenance actions that are required to keep the project operating and delivering benefits. Non-routine activities are actions that are “project like” in that they are a unique action with a specific beginning and end. Examples of non-routine actions would be the replacement of a potable water well, or paving a project access road. This increment includes major maintenance and rehabilitation. Each non-routine activity must be shown separately to allow individual funding decisions based on the performance metrics and must be shown in priority order by District and MSC Rank. Increment must be performance based and integral with a study/project with high outputs and consistent with ranking.

(c) Increment 3: This increment includes critical operation and maintenance activities, both routine and non-routine, for the 25% above the minimal program level, that are defined by the state of the practice and are needed to sustain the expected future benefits of the project. Preparation of reports for Major maintenance (MM) and rehabilitation (MR) can be included in this increment. MM and MR activities must have approved reports before they can be included for implementation. Increment must be performance based and integral with a study/project with high outputs and consistent with ranking.

(d) Increment 4: This increment includes operation and maintenance activities, both routine and non-routine, above the 100% level of TABLE III-2-3 by MSC, that are defined by the state of the practice and are needed to sustain the expected future benefits of the project. In most cases, activities in this increment will support continuing the level of service that customers, stakeholders, and others have come to expect and depend-on for sustaining public safety and economic, environmental and social benefits. Multiple Increment 4 activities should be submitted that reflect the logical pieces of routine or non-routine activities beyond the 5 year average limit. Increment must be performance based and integral with a study/project with high outputs and consistent with ranking.

(e) Increment 5: Activities that have a high expected return on investment that enable greater levels of performance in future years should be included in this enhanced or capability Increment. Increment must be performance based and integral with a study/project with high outputs and consistent with ranking.

(2) Use of Increments. Increments can facilitate ranking, but they are not used to rank or prioritize activities. Performance metrics will be used to set funding priorities. An integrated O&M program will be developed by each MSC as described below. *This integrated program applies to all business lines and no business line is reserved an individual 75%.* It will be the MSC's decision to allocate to business lines within the integrated 75% program limit. TABLE III-2-3 displays 75% values of the 5-year average of the O&M President's Budget amount by MSC. The philosophy is to use Increment 1 as the minimum level to account for critical routine activities (both operations and maintenance) and to use Increment 2 to account for critical non-routine activities on our high performing projects.

III-2-13. Operation and Maintenance Increments and Program Integration.

a. O&M Increments – O&M increment definitions for individual business lines can be found in Appendices B thru I. The total of O&M Increments 1 and 2 for ALL business lines within an MSC must not exceed 75 percent of the average of the prior 5 year President's budgets for O&M for the MSC. In

addition, the total of O&M Increments 1, 2 *and* 3 for ALL business lines in the MSC's shall be no more than 100% of the average of the prior 5 year President's budgets for O&M for the MSC. (See TABLE III-2-3).

b. O&M Business Line Integration. Districts shall rank ALL O&M work packages across ALL business lines from "1 to n" before submitting their O&M budget to the MSC. Following district submissions, the MSC's shall integrate O&M work packages from ALL districts and ALL business lines into a single MSC O&M program with work packages ranked from "1 to n". A single, integrated MSC O&M program means that input from ALL districts shall be integrated across ALL business lines, with each O&M entry given a MSC priority ranking from "1 to n". This integration methodology by each MSC will facilitate consistency within HQUSACE in the formulation of the Civil Works O&M budget across all MSCs as well as all business lines, appropriations and Districts.

TABLE III-2-3

Total For Increments 1+2 By MSC 75% of prior five fiscal year average budgets for Increments 1 & 2 by MSC	
MSC	Amounts
LRD	\$330,992,000
MVD	\$299,638,000
NAD	\$154,000,000
NWD	\$213,696,000
POD	\$18,218,000
SAD	\$254,117,000
SPD	\$103,761,000
SWD	\$274,003,000
TOTAL	\$1,648,426,000

III-2-14. Recreation Budget Evaluation System (Rec-BEST). This web-based tool has been developed for field use in calculating Recreation performance measure outputs for O&M activities. Rec-BEST must be used to support ranking PY Recreation O&M and MR&T budget packages. Using Rec-BEST, Recreation budget activities (as defined by Work Category Codes) may be combined to create budget packages. Recreation budget activities will be evaluated individually based upon their performance values. All the budget packages will be matched into the corresponding increments in P2 and separated by "Budget Item" (BEST_ID) in P2 to assure the proper performance measures can be linked to each budget item in OFA. See Appendix G, for additional information about budget development for the Recreation Business Line.

III-2-15. Environment-Stewardship Budget Evaluation System (E-S BEST). This web-based tool has been developed for field use in calculating Environment-Stewardship performance measure outputs for O&M activities. E-S BEST must be used to support ranking PY Environment-Stewardship O&M and MR&T budget packages. Using E-S BEST, Environment-Stewardship budget activities (as defined by

Work Category Codes) may be combined to create budget packages. A budget package is to contain all the budget activities that are necessary to produce a specified and quantified performance output. Performance outputs values will be calculated for all budget packages created in E-S BEST, using information provided by the Operations Manager or appropriate project budget developer. E-S BEST will support the ranking of all the Environment-Stewardship budget packages at the District, MSC, and HQ levels. Environment-Stewardship budget packages will be grouped into increments in accord with the definitions provided in the main portion of the EC. All the budget packages will be matched into the corresponding increments in P2 and separated by "Budget Item" (BEST_ID) in P2 to assure the proper performance measures can be linked to each budget item in OFA. See Sub-Appendix C-3, Environment-Stewardship for additional information about budget development for the Environment-Stewardship Business Line.

III-2-16. Projects Previously Funded in O&M. The following five activities should be budgeted in the Construction account: Biological Opinions (except as noted in Sub-Appendix C-3) Rehabilitations, Dredged Material Disposal Facilities (DMDFs), Beneficial Uses of Dredged Material, and Renourishment to Restore Sand Lost to Shorelines from Federal Navigation O&M.

III-2-17. Deficiency Corrections. All deficiencies at Corps of Engineers operated and maintained projects will be funded in accordance with Sub-ANNEX II-3.

III-2-18. Cost Estimates. See the MAIN part of this EC for guidance on Cost Estimates.

III-2-19. Budget Submission Requirements.

a. Database System. P2 will be used to submit data for the O&M program. For guidance and instructions on use of P2 refer the MAIN part of this EC.

b. Submission requirements for automated data and hard copies are listed in TABLE 2 of the MAIN part of this EC.

SUB-ANNEX III-3

Operation and Maintenance

National Emergency Preparedness Program (NEPP)

III-3-1. General. Through the use of the Evaluation and Corrective Action Program and other similar assessment tools, every effort should be made to ensure that your current state of organizational readiness is maintained in a manner which assures that your capability to support the nation in a national emergency is sustained. National Emergency Preparedness Program (NEPP) activities to be programmed are Local Preparedness (Continuity of Operations (COOP)) 903-510, National Preparedness (primarily the development of Catastrophic Disaster Response Plans (CDRP)) 903-520, Facilities (903-530), the Emergency Water Program (903-540), Continuity of Government (COG) 903-550), NEPP Training/Exercises (903-560), and National Emergency Response/ Event (903-570). Overall program priorities are:

- Preparedness Plans and SOPs (including CDRP's, COOP, COG)
- Program Management
- Exercises and Training
- Emergency Facilities (EOC)

Field organizations should not anticipate any significant mid-year fiscal relief from the Headquarters, U.S. Army Corps of Engineers (HQUSACE) (CECW-HS) for personnel or other program costs. MSC's should critically review subordinate district requirements to ensure consistency with overall priorities. If necessary, MSC's should propose reprogramming within the MSC to accomplish highest priority efforts.

III-3-2. General Program.

a. National Emergency Preparedness Program (Code 903-500). This feature series includes those civil administrative, supervisory and procurement activities at each USACE activity that are concerned solely with developing and maintaining a high state of preparedness for national emergency operations of the Corps of Engineers Civil Works functions.

b. Continuity of Operations (Code 903-510). This feature series applies to USACE oriented COOP preparedness planning. Activities in this category include those associated with the identification of specific USACE reconstitution missions, the analysis of required resources, the establishment of organizational and operational procedures, the preparation and publication of contingency plans, and the participation in exercises related to USACE emergency relocation and reconstitution missions as a result of either a natural or manmade disaster. Planning items should include but are not limited to: command succession, identification of alternate relocation/alternate headquarters site(s) (NEPP does not support funding for the acquisition of space), development of appropriate crisis relocation team(s), identification and storage of duplicate emergency files, and other considerations necessary to ensure minimum downtime of the affected organization. This also includes, in conjunction with other appropriate offices, the development of a framework for the individual plans that address the continued operation of Corps civil works projects.

c. National Preparedness Planning (Code 903-520). This feature series consists of activities and services which provide the Corps with the capability to ensure that MSCs and Districts can provide support for the nation during national emergency events other than reconstitution. Included are those activities associated with the identification of the USACE national emergency missions, the establishment

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of organizational and operational procedures, the preparation and publication of catastrophic disaster response plans. Also included is the necessary planning coordination with related Federal, state, and local entities. Efforts include, but are not limited to, the following:

- (1) Technological and other manmade disasters.
 - (2) Anti and Counter Terrorism.
 - (3) Military Support to Civil Authorities, including the development of catastrophic disaster response plans.
 - (4) Command, Control, Communications and Computers (C4).
 - (5) Individual Mobilization Augmentee (IMA) Program Management. IMA management associated solely with disaster response and the development and maintenance of disaster related Table of Distribution and Work Allowances (TDAs).
 - (6) Port Readiness. Activities associated with maintenance of navigable waterways.
 - (7) Resource Management and Administration. Requirements associated with programming, personnel management, and reports.
- d. Emergency Operations Center Support (Code 903-530). This feature consists of the exclusive use of space which supports Emergency Operations Centers (EOCs). Included are those activities associated with the operation and maintenance in support of the facilities (rent, supplies, equipment, etc.). This class does not include any labor charges. The EOC will be funded on a joint basis between NEPP and other readiness programs.
- e. Emergency Water Program (Code 903-540). This applies to requirements of Executive Order (E.O.) 12656 (for HQUSACE) only.
- f. Continuity of Government (Code 903-550). Defined as plans to support Federal Emergency Management Agency (FEMA) and other Federal, state and local agencies in their efforts to reestablish civil authority lost as a result of natural or manmade disaster or an attack on the United States (for HQUSACE and only as directed).
- g. Catastrophic Disaster Training and Exercises (Code 903-560). The development of and participation in catastrophic disaster exercises and training in the inter- and intra-agency arena. The development and participation in evaluation and corrective action programs related to catastrophic disasters will be funded under this class.
- h. National Emergency Response/Event (Code 903-570). This class includes activation and operation of EOCs and the deployment of response personnel and equipment for a national emergency event. These funds are not budgeted and will be issued by HQUSACE as the situation warrants. Refer to ER-11-1-320.

III-3-3. Cost Estimates. Estimates should include overhead costs for both PY-1, PY, and PY+n. PY-1 figures should reflect any recommended increases from the PY-1 program request.

III-3-4. Recommended Funding Level. PY-1 and PY funding levels for all series other than Code 903-520 are expected to be no higher than PY-2 levels, (Code 903-520 funding will be based upon specific

scenario based CDRP assignments).

a. Each MSC will establish priorities for each major level of effort and identify those areas which cause recommended MSC/district programs to exceed funding levels defined. Requirements above PY-2 allocations should be specifically addressed. Salary costs for MSC Emergency Management Chiefs are to be funded under the Expenses appropriation, not Operation and Maintenance, or Flood Control and Coastal Emergencies appropriation accounts.

b. MSCs and Districts will submit a performance based budget that identifies those outcomes and outputs that can be achieved and/or measured during the execution year. Prepare PY budget in accordance with this EC and update CY budget in accordance with supplemental guidance from HQ. Districts will prepare ILLUSTRATIONS III-3.1 thru III-3.3 are found at the end of Sub-Annex III-3.

(1) Increment 1 (Baseline) - the baseline budget requirement which is at the existing level of service plus the OMB accepted rate of inflation. The NEPP program does not have a baseline number of FTE's attached to the program for each office. All additional FTE's or part of an FTE added to the current staff must be justified and will be submitted through the Division to HQs for review. The baseline budget should include only existing staff and current approved FTEs (no new staff requirements); existing leases not funded through revolving fund; and required ancillary costs to support minimum requirements.

(2) Increment 2 (Recommended) - Additional recommended non-constrained requirements not reflected in Increment 1.

(3) Increment 3 (Capability) – Additional non-constrained requirements not reflected in increments 1 and 2. The sum of increments 1, 2, and 3 will equal the total capability.

III-3-5. Submission Requirements. Districts will prepare and MSCs will submit a performance based budget that identifies those outcomes and outputs that can be achieved and/or measured during the execution year. Prepare PY budget in accordance with this EC and update CY budget in accordance with supplemental guidance from HQUSACE. Districts and MSCs will prepare Illustrations III-3.1 thru III-3.3 (Instructions, MSC FTE Rollup Chart, FTE, Support, Baseline, Recommended and Capability Worksheets, P2-OFA Spreadsheet).

III-3-6. P-2/Oracle Financial Analyzer (OFA) Requirements.

a. The NEPP project is independent of FCCE or any other project and will have its own project number. Projects will not mix appropriations.

b. P-2 will be used to summarize the NEPP funding categories for the PY budget year with CY updates.

c. This section provides guidance and common structures for the NEPP project represented within Primavera Project Manager (PPM). The project consists of a set of activities that are included in the budget, based on Emergency Management Accreditation Program (EMAP) standards. The activities within the project require resourcing. For example, these resources will include but are not limited to labor, contracts, travel, supplies and materials, etc. The total cost of supplying these resources for a given activity represents the budget amount that the activity requires within the budget. The total cost of all activities represents the total budget required by the project.

d. The following instructions describe required, specific tasks to develop the PY budget for the Corps HS/EM projects using PPM and OFA.

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(1) General Directions.

(a) PPM will be used to summarize the Categories of funds requested for NEPP (Category 500).

(b) For HS/EM, use the EM Preparedness (NEPP) template accessed through "Project Architect" within the project.

(c) A Program Code must be entered on each P-2 project. The program code must be the six character AMSCO/CWIS code that has been assigned in CEFMS for the project. If multiple P-2 projects have been created from one AMSCO/CWIS, then each P-2 project must be assigned the same program code.

(2) For effective use of PPM, the following information will aid data entry.

(a) Create a separate WBS for each budget year to be named NEPP Preparedness Budget FYXX. The WBS should be "Planned" Status so that proposed budgets will remain in P-2 alone until ready for transfer to CEFMS.

(b) Each Project Manager can add additional activities and resources needed to complete PY work. All work will be described as one or more activities that require resources to complete. On each activity which is resourced for PY, enter the applicable increment value in the "CW Funding Increment" activity code; either a "1" to signify the baseline funding requirement, or "2" for recommended funding, and a "3" for capability funding. This code will be used to identify an activity as a PY budget activity, and will be used to extract PY budget activities for OFA. Please do not assign this activity code to any activities that are not part of the PY budget.

(c) Program Managers, Business Line Managers, Division Chiefs, Commanders, and other interested parties in each District and MSC can begin review of the PY budget data as soon as it is added by the Project Manager. Each District and MSC will likely have their own processes to review budget data. Much of the review can be done using PPM and some can be done using OFA.

(d) HQ will evaluate each increment in the business area and set the overall rank of each increment.

(3) Specific data fields entered in PPM will be extracted nightly by the P-2 system and loaded into OFA. An OFA data entry form can then be used to adjust the data as needed and provide additional data which does not exist in PPM. Each record (or row) of budget and performance measure data in the OFA data entry form will be detailed by the following seven key fields. Note: that if two budget activities in Primavera have identical values for all seven key fields, they will roll together into one budget item when they are extracted into OFA.

(a) Business Line. The primary Business Line is EM for Homeland Security/Emergency management.

(b) Engineer Resources Organization Code (EROCC). Used to identify District/Division

(c) CW Type of Funds (Appropriation/CCS). This data element identifies the NEPP Appropriation-Category-Class, such as 96 3123 510, 96 3123 520, 96 3123 530 and 96 3123 560.

(d) Project Number. Assigned when the project is created in PPM.

(e) Funding Increment. This data element identifies the business funding increment for each activity. Increment 1 is used to identify the baseline funding requirement, Increment 2 signifies recommended funding and Increment 3 identifies capability funding.

(f) Budget Item ID. Enter N/A

(g) Phase Activity. Enter N/A.

(4) Additional Fields of Interest in OFA:

(a) Enter N/A in the following OFA data fields which are not applicable to EM: Primary Feature Code. Additional Feature Codes, Mitigation Requirement Code, GBL Sustainability (EO 13514). Phase, Phase Status, Phase Completion, System Code, Basin Code, State, Contract Type.

(b) The District and MSC Rank Fields are for optional use. The Army, HQ and President's Budget Ranks fields are for HQ use only.

(c) Current Budget – Federal. This field displays the resourced amount entered in PPM for the budget item. This is for information purposes only.

(d) Budget Request (Federal). Enter the requested amount in whole dollars. This field is required.

(e) Budget Item Justification. Enter a short explanation of the purpose of the budget item. This field may also be used to add comments or clarify any entries for the budget item. The maximum length is 489 characters.

ILLUSTRATION III-3.1

MSC Budget Submission Template



ILLUSTRATION
III-3.1

ILLUSTRATION III-3.2

District Budget Submission Template



ILLUSTRATION
II-3.2

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ILLUSTRATION III-3.3
P2 OFA SPREADSHEET



ILLUSTRATION
III-3.3

SUB-ANNEX III-4

Work Category Codes

III-4-1. O&M Work Category Codes- Numerically Ordered.

TABLE III-4-1	
Work Category Codes – Numerically Ordered (See footnotes at end of Table)	
WORK CATEGORY CODE	DESCRIPTION
601-- ^{1/}	Operation for Navigation Functions
60110 **	Operation of Locks, Dams, Reservoirs, Service Facilities, Permanent Operating Equipment, Etc. for Navigation
60120 ^{1/}	Studies and Surveys for Navigation
60121*	Studies and Surveys
60122	Major Rehabilitation Evaluation Reports
60123	Environmental Studies and Monitoring for Dredging Purposes
60130 ^{1/}	Dam Safety for Navigation
60131**	Instrumentation, Data Collection and Analysis
60132*	Formal Periodic Inspections and Reports
60133	Dam Safety Assurance Studies
60140 ^{1/}	Water Management (Control and Quality) Activities for Navigation
60141	Water Management (Control and Quality) Activities - Analysis and Studies for Navigation
60142	Water Management (Control and Quality) Activities - Operation of Water Control Data Systems for Navigation
60150*	Real Estate Management for Navigation
60160	Environmental Compliance Management for Navigation
60190 ^{1/}	Facility Security for Navigation
60191	Facility Security Assessments for Navigation
60192	Facility Security Guards, Monitoring Activities for Navigation
602-- ^{1/}	Operation for Flood Risk Management Functions
60210**	Operation of Locks, Dams, Reservoirs, Service Facilities, Permanent Operating Equipment, Etc. for Flood Risk Management
60220 ^{1/}	Studies and Surveys for Flood Risk Management
60221	Studies and Surveys
60222	Major Rehabilitation Evaluation Reports
60223*	Inspections of Completed Works - Local Protection Projects
60230 ^{1/}	Dam Safety for Flood Risk Management

TABLE III-4-1	
Work Category Codes – Numerically Ordered (See footnotes at end of Table)	
WORK CATEGORY CODE	DESCRIPTION
60231**	Instrumentation, Data Collection and Analysis
60232*	Formal Periodic Inspections and Reports
60233	Dam Safety Assurance Studies
60240 ^{1/}	Water Management (Control and Quality) Activities for Flood Risk Management
60241	Water Management (Control and Quality) Activities - Analysis and Studies for Flood Risk Management
60242	Water Management (Control and Quality) Activities - Operation of Water Control Data Systems for Flood Risk Management
60250*	Real Estate Management for Flood Risk Management
60260	Environmental Compliance Management for Flood Risk Management
60290 ^{1/}	Facility Security for Flood Risk Management
60291	Facility Security Assessments for Flood Risk Management
60292	Facility Security Guards, Monitoring Activities for Flood Risk Management
603-- ^{1/}	Operation for Hydropower Functions
60310 ^{1/}	Operation of Dams, Power Plants, Reservoirs, Service Facilities, Permanent Operating Equipment, Etc. for Hydropower
60311**	Operations - Supervision and Engineering
60312**	Hydraulic Expenses
60313**	Electric Expenses
60314**	Miscellaneous Hydraulic Power Generation Expenses
60320 ^{1/}	Studies and Surveys for Hydropower
60321	Studies and Surveys - Supervision and Engineering
60322	Studies and Surveys - Hydraulic Expenses
60323	Studies and Surveys – Electric Expenses
60324	Studies and Surveys - Miscellaneous Hydraulic Power Generation Expenses
60325	Major Rehabilitation Evaluation Reports
60330 ^{1/}	Dam Safety for Hydropower
60331**	Instrumentation, Data Collection and Analysis
60332*	Formal Periodic Inspections and Reports
60333	Dam Safety Assurance Studies
60340 ^{1/}	Water Management (Control and Quality) Activities for Hydropower
60341	Water Management (Control and Quality) Activities - Analysis and Studies for Hydropower

TABLE III-4-1	
Work Category Codes – Numerically Ordered (See footnotes at end of Table)	
WORK CATEGORY CODE	DESCRIPTION
60342	Water Management (Control and Quality) Activities - Operation of Water Control Data Systems for Hydropower
60350*	Real Estate Management for Hydropower
60360	Environmental Compliance Management for Hydropower
60390 ^{1/}	Facility Security for Hydropower
60391	Facility Security Assessments for Hydropower
60392	Facility Security Guards, Monitoring Activities for Hydropower
604-- ^{1/}	Operation for Environmental Stewardship Functions
60410 ^{1/}	Operation for Environmental Stewardship
60411	Management of Natural Resources for Environmental Stewardship
60412	Management and Curation of Archeological and Cultural Resources
60413	Management of Natural Resources Mitigation Features
60414	Fisheries Management - Operation of Fish Hatcheries
60415	Fisheries Management – Fish Hauling Activities and Fish Passage Structures
60416	Comprehensive Master Plans
60417	Shoreline Management
60418	Management of Special Status Species for Environmental Stewardship
60419	Pest Management for Environmental Stewardship
60420 ^{1/}	Studies, Surveys and Inventories for Environmental Stewardship
60421	Studies, Surveys and Inventories for Environmental Stewardship
60422	Inspection of Ecosystem Restoration Projects
60430	Reserved
60440 ^{1/}	Water Management (Control and Quality) Activities for Environmental Stewardship
60441	Water Management (Control and Quality) Activities - Analysis and Studies for Environmental Stewardship
60442	Water Management (Control and Quality) Activities - Operation of Water Control Data Systems for Environmental Stewardship
60450*	Real Estate Management for Environmental Stewardship
60460	Environmental Compliance Management for Environmental Stewardship
60490 ^{1/}	Facility Security for Environmental Stewardship
60491	Facility Security Assessments for Environmental Stewardship
60492	Facility Security Guards, Monitoring Activities for Environmental Stewardship

TABLE III-4-1	
Work Category Codes – Numerically Ordered (See footnotes at end of Table)	
WORK CATEGORY CODE	DESCRIPTION
605-- ^{1/}	Operation for Recreation Functions
60510 ^{1/}	Operation for Recreation
60511**	Operation/management of Recreation Areas/facilities, Reservoirs, Service Facilities and Equipment, Etc. for Recreation
60513	Law Enforcement - Costs and Supervision of Law Enforcement Agreements
60514	Operation/management of Visitor Centers
60520	Studies and Surveys for Recreation
60540 ^{1/}	Water Management (Control and Quality) Activities for Recreation
60541	Water Management (Control and Quality) Activities - Analysis and Studies for Recreation
60542	Water Management (Control and Quality) Activities - Operation of Water Control Data Systems for Recreation
60550*	Real Estate Management for Recreation
60560	Environmental Compliance Management for Recreation
60590 ^{1/}	Facility Security for Recreation
60591	Facility Security Assessments for Recreation
60592	Facility Security Guards, Monitoring for Recreation
606-- ^{1/}	Joint Activities for Operations (Cat/Class 300 Multipurpose Hydropower Projects ONLY)
60610**	Joint Costs for Operations Activities
60620 ^{1/}	Joint Costs for Studies and Surveys
60621*	Joint Costs for Studies and Surveys
60622	Joint Costs for Major Rehabilitation Evaluation Reports
60630 ^{1/}	Joint Costs for Dam Safety Activities
60631**	Joint Costs for Instrumentation, Data Collection and Analysis
60632*	Joint Costs for Formal Periodic Inspections and Reports
60633	Joint Costs for Dam Safety Assurance Studies
60640 ^{1/}	Joint Costs for Water Management (Control and Quality) Activities
60641	Joint Costs for Water Management (Control and Quality) Activities – Analysis and Studies
60642	Joint Costs for Water Management (Control and Quality) Activities – Operation of Water Control Data Systems
60650*	Joint Costs for Real Estate Management Activities
60660	Joint Costs for Environmental Compliance Management Activities

TABLE III-4-1	
Work Category Codes – Numerically Ordered (See footnotes at end of Table)	
WORK CATEGORY CODE	DESCRIPTION
60690 ^{1/}	Joint Costs for Facility Security Activities
60691	Joint Costs for Facility Security Assessments
60692	Joint Costs for Facility Security Guards, Monitoring Activities
60710 ^{1/}	NEPP National Emergency Preparedness Program
60711	NEPP Continuity of Operations
60712	NEPP National Preparedness Planning
60713	NEPP Support of Emergency Ops Ctrs
60714	NEPP Emergency Water Program
60715	NEPP Continuity of Government
60716	NEPP Training and Exercises
60717	NEPP National Emergency Response / Event
608-- ^{1/}	Operation for Water Supply Functions
60810 ^{1/}	Operation for Water Supply
60811	Operation of Project Gates, Specific Water Supply Conduits, Permanent Operating Equipment, Etc. for Water Supply
60812	Water Supply Agreements
60820	Studies and Surveys for Water Supply
611— ^{1/}	Maintenance for Navigation Functions
61110	Maintenance of Locks, Dams, Reservoirs, Levees, Other Structures, Service Facilities, Permanent Operating Equipment, Etc. for Navigation
61120 ^{1/}	Dredging for Navigation
61121	Dredging Activities for Navigation
61122	Construction and Maintenance of Dredged Material Disposal Facilities for Navigation
61130	Dam Safety Remediation of Deficiencies for Navigation
61140	Purchase/maintenance of Water Management (Control and Quality) Equipment for Navigation
61150 ^{1/}	Real Estate for Navigation
61151	Land Acquisition and Disposal Management Activities, Settlement of Claims, and Audits for Navigation
61152	Resolution of Real Estate Encroachments for Navigation
61153	Boundary Monumentation and Rectification for Navigation
61160	Environmental Compliance (Remedial Actions) for Navigation
61170	Remaining O&M Funded Major Rehabilitation (Comprehensive Replacement)

TABLE III-4-1	
Work Category Codes – Numerically Ordered (See footnotes at end of Table)	
WORK CATEGORY CODE	DESCRIPTION
	Projects for Navigation
61190 ^{1/}	Facility Security Physical Improvements, Modifications, Maintenance and Replacement for Navigation
61191	Facility Security Maintenance and Replacement for Navigation
61192	Facility Security Physical Improvements and Modifications for Navigation
612— ^{1/}	Maintenance for Flood Risk Management Functions
61210 ^{1/}	Maintenance for Flood Risk Management
61211	Maintenance of Dams, Reservoirs, Other Structures, Service Facilities, permanent Operating Equipment, Etc. for Flood Risk Management
61212	Maintenance of Dikes, Revetments, Breakwaters and Similar Structures for the Mississippi River and Tributaries (MR&T)
61220 ^{1/}	Dredging for Flood Risk Management
61221	Dredging Activities for Flood Risk Management
61222	Construction and Maintenance of Dredged Material Disposal Facilities for Flood Risk Management
61230	Dam Safety Remediation of Deficiencies for Flood Risk Management
61240	Purchase/maintenance of Water Management (Control and Quality) Equipment for Flood Risk Management
61250 ^{1/}	Real Estate for Flood Risk Management
61251	Land Acquisition and Disposal Management Activities, Settlement of Claims, and Audits for Flood Risk Management
61252	Resolution of Real Estate Encroachments for Flood Risk Management
61253	Boundary Monumentation and Rectification for Flood Risk Management
61260	Environmental Compliance (Remedial Actions) for Flood Risk Management
61290 ^{1/}	Facility Security Physical Improvements, Modifications, Maintenance and Replacement for Flood Risk Management
61291	Facility Security Maintenance and Replacement for Flood Risk Management
61292	Facility Security Physical Improvements and Modifications for Flood Risk Management
613— ^{1/}	Maintenance for Hydropower Functions
61310 ^{1/}	Maintenance of Power Plants, Dams, Reservoirs, Service Facilities, Permanent Operating Equipment, Etc. for Hydropower
61311	Maintenance Supervision for Hydropower
61312	Maintenance of Hydraulic Structures for Hydropower

TABLE III-4-1	
Work Category Codes – Numerically Ordered (See footnotes at end of Table)	
WORK CATEGORY CODE	DESCRIPTION
61313	Maintenance of Electric Plant for Hydropower
61314	Maintenance of Miscellaneous Hydraulic Plant for Hydropower
61320	Dredging Activities for Hydropower
61330	Dam Safety Remediation of Deficiencies for Hydropower
61340	Purchase/maintenance of Water Management (Control and Quality) Equipment for Hydropower
61350 ^{1/}	Real Estate for Hydropower
61351	Land Acquisition and Disposal Management Activities, Settlement of Claims, and Audits for Hydropower
61352	Resolution of Real Estate Encroachments for Hydropower
61353	Boundary Monumentation and Rectification for Hydropower
61360	Environmental Compliance (Remedial Actions) for Hydropower
61370 ^{1/}	Remaining O&M Funded Major Rehabilitation (Comprehensive Replacement) Projects for Hydropower
61371	Comprehensive Replacement Supervision
61372	Comprehensive Replacement of Structures
61373	Comprehensive Replacement of Electric Plant
61374	Comprehensive Replacement of Miscellaneous Hydraulic Plant
61390 ^{1/}	Facility Security Physical Improvements, Modifications, Maintenance and Replacement for Hydropower
61391	Facility Security Maintenance and Replacement for Hydropower
61392	Facility Security Physical Improvements and Modifications for Hydropower
614— ^{1/}	Maintenance for Environmental Stewardship Functions
61410 ^{1/}	Maintenance for Environmental Stewardship
61411	Maintenance of Natural Resources Facilities for Environmental Stewardship
61412	Mitigation of Archeological and Cultural Resources
61413	Maintenance of Natural Resources Mitigation Features for Environmental Stewardship
61414	Maintenance of Fisheries, Fish Haulage Activities and Fish Passage Structures
61418	Maintenance for Special Status Species for Environmental Stewardship
61420 ^{1/}	Dredging for Environmental Stewardship
61421	Dredging Activities for Environmental Stewardship
61422	Construction and Maintenance of Dredged Material Disposal Facilities for

TABLE III-4-1	
Work Category Codes – Numerically Ordered (See footnotes at end of Table)	
WORK CATEGORY CODE	DESCRIPTION
	Environmental Stewardship
61430	Reserved
61440	Purchase/maintenance of Water Management Equipment (Control and Quality) for Environmental Stewardship
61450 ^{1/}	Real Estate for Environmental Stewardship
61451	Land Acquisition and Disposal Management Activities, Settlement of Claims, and Audits for Environmental Stewardship
61452	Resolution of Real Estate Encroachments for Environmental Stewardship
61453	Boundary Monumentation and Rectification for Environmental Stewardship
61460	Environmental Compliance (Remedial Actions) for Environmental Stewardship Features
61490 ^{1/}	Facility Security Physical Improvements, Modifications, Maintenance and Replacement for Environmental Stewardship
61491	Facility Security Maintenance and Replacement for Environmental Stewardship
61492	Facility Security Physical Improvements and Modifications for Environmental Stewardship
615— ^{1/}	Maintenance for Recreation Functions
61510 ^{1/}	Maintenance for Recreation
61511	Maintenance of Recreation Facilities, Other Operating Equipment, Etc.
61513	Cost Shared Recreation Developments
61514	Maintenance of Visitor Centers
61515	Modernization of Recreation Features
61520	Dredging Activities for Recreation
61530	Reserved
61540	Purchase/maintenance of Water Management Equipment (Control and Quality) for Recreation
61550 ^{1/}	Real Estate for Recreation
61551	Land Acquisition and Disposal Management Activities, Settlement of Claims, and Audits for Recreation
61552	Resolution of Real Estate Encroachments for Recreation
61553	Boundary Monumentation and Rectification for Recreation
61560	Environmental Compliance (Remedial Actions) for Recreation
61590 ^{1/}	Facility Security Physical Improvements, Modifications, Maintenance and Replacement for Recreation

TABLE III-4-1	
Work Category Codes – Numerically Ordered (See footnotes at end of Table)	
WORK CATEGORY CODE	DESCRIPTION
61591	Facility Security Maintenance and Replacement for Recreation
61592	Facility Security Physical Improvements and Modifications for Recreation
616-- ^{1/}	Joint Activities for Maintenance (Cat/Class 300 Multipurpose Hydropower Projects ONLY)
61610	Joint Costs for Maintenance Activities Excluding Dredging
61620 ^{1/}	Joint Costs for Dredging
61621	Joint Costs for Dredging Activities
61622	Joint Costs for Construction and Maintenance of Dredged Material Disposal Facilities
61630	Joint Costs for Dam Safety Remediation of Deficiencies
61640	Joint Costs for Water Management Equipment Activities
61650 ^{1/}	Joint Costs for Real Estate Activities
61651	Joint Costs for Land Acquisition and Disposal Management Activities, Settlement of Claims, and Audits
61652	Joint Costs for Resolution of Real Estate Encroachments
61653	Joint Costs for Boundary Monumentation and Rectification
61660	Joint Costs for Environmental Compliance (Remedial Actions) Activities
61690 ^{1/}	Joint Costs for Facility Security Physical Improvements, Modifications, Maintenance and Replacement
61691	Joint Costs for Facility Security Maintenance and Replacement
61692	Joint Costs for Facility Security Physical Improvements and Modifications
618-- ^{1/}	Maintenance for Water Supply Functions
61810	Maintenance of Project Gates, Specific Water Supply Conduits, Permanent Operating Equipment, Etc. for Water Supply

Footnotes:

1/ SUMMARY COST ACCOUNT/WORK CATEGORY CODE - Costs may not be charged directly to these accounts.

NOTE: PERIODIC INSPECTIONS AND REPORTS, AND INSTRUMENTATION, DATA COLLECTION AND ANALYSIS are to be included in the minimum program for the project to meet minimum legal responsibilities for operations and safety. This footnote applies to the work category codes 60131, 60132, 60231, 60232, and 60331, 60332, 60631 and 60632.

*Work Category Codes marked with an asterisk require added data in project work description, justification statement, or output measures.

**Although Work Category Codes marked with double asterisk require no description or funding argument, requested resources will be in consonance with the funding increment and prior year experience.

III-4-2. O&M Work Category Codes- Alphabetically Ordered.

TABLE III-4-2 Work Category Codes – Alphabetically Ordered	
DESCRIPTION	WORK CATEGORY CODE
Boundary Monumentation and Rectification for Environmental Stewardship	61453
Boundary Monumentation and Rectification for Flood Risk Management	61253
Boundary Monumentation and Rectification for Hydropower	61353
Boundary Monumentation and Rectification for Navigation	61153
Boundary Monumentation and Rectification for Recreation	61553
Comprehensive Master Plans	60416
Comprehensive Replacement of Electric Plant	61373
Comprehensive Replacement of Miscellaneous Hydraulic Plant	61374
Comprehensive Replacement of Structures	61372
Comprehensive Replacement Supervision	61371
Construction and Maintenance of Dredged Material Disposal Facilities for Flood Risk Management	61222
Construction and Maintenance of Dredged Material Disposal Facilities for Environmental Stewardship	61422
Construction and Maintenance of Dredged Material Disposal Facilities for Navigation	61122
Cost Shared Recreation Developments	61513
Dam Safety Assurance Studies	60333
Dam Safety Assurance Studies	60133
Dam Safety Assurance Studies	60233
Dam Safety for Flood Risk Management	60230 ^{1/}
Dam Safety for Hydropower	60330 ^{1/}
Dam Safety for Navigation	60130 ^{1/}
Dam Safety Remediation of Deficiencies for Flood Risk Management	61230
Dam Safety Remediation of Deficiencies for Hydropower	61330
Dam Safety Remediation of Deficiencies for Navigation	61130
Dredging Activities for Environmental Stewardship	61421
Dredging Activities for Flood Risk Management	61221
Dredging Activities for Hydropower	61320
Dredging Activities for Navigation	61121
Dredging Activities for Recreation	61520
Dredging for Environmental Stewardship	61420 ^{1/}

TABLE III-4-2	
Work Category Codes – Alphabetically Ordered	
DESCRIPTION	WORK CATEGORY CODE
Dredging for Flood Risk Management	61220 ^{1/}
Dredging for Navigation	61120 ^{1/}
Electric Expenses	60313**
Environmental Compliance (Remedial Actions) for Environmental Stewardship Features	61460
Environmental Compliance (Remedial Actions) for Flood Risk Management	61260
Environmental Compliance (Remedial Actions) for Hydropower	61360
Environmental Compliance (Remedial Actions) for Navigation	61160
Environmental Compliance (Remedial Actions) for Recreation	61560
Environmental Compliance Management for Environmental Stewardship	60460
Environmental Compliance Management for Flood Risk Management	60260
Environmental Compliance Management for Hydropower	60360
Environmental Compliance Management for Navigation	60160
Environmental Compliance Management for Recreation	60560
Environmental Studies and Monitoring for Dredging Purposes	60123
Facility Security Assessments for Environmental Stewardship	60491
Facility Security Assessments for Flood Risk Management	60291
Facility Security Assessments for Hydropower	60391
Facility Security Assessments for Navigation	60191
Facility Security Assessments for Recreation	60591
Facility Security for Environmental Stewardship	60490 ^{1/}
Facility Security for Flood Risk Management	60290 ^{1/}
Facility Security for Hydropower	60390 ^{1/}
Facility Security for Navigation	60190 ^{1/}
Facility Security for Recreation	60590 ^{1/}
Facility Security Guards, Monitoring Activities for Environmental Stewardship	60492
Facility Security Guards, Monitoring Activities for Flood Risk Management	60292
Facility Security Guards, Monitoring Activities for Hydropower	60392
Facility Security Guards, Monitoring Activities for Navigation	60192
Facility Security Guards, Monitoring Activities for Recreation	60592
Facility Security Maintenance and Replacement for Navigation	61191
Facility Security Physical Improvements and Modifications for Navigation	61192
Facility Security Physical Improvements, Modifications, Maintenance and	61190 ^{1/}

TABLE III-4-2	
Work Category Codes – Alphabetically Ordered	
DESCRIPTION	WORK CATEGORY CODE
Replacement for Navigation	
Facility Security Maintenance and Replacement for Flood Risk Management	61291
Facility Security Physical Improvements and Modifications for Flood Risk Management	61292
Facility Security Physical Improvements, Modifications, Maintenance and Replacement for Flood Risk Management	61290 ^{1/}
Facility Security Maintenance and Replacement for Hydropower	61391
Facility Security Physical Improvements and Modifications for Hydropower	61392
Facility Security Physical Improvements, Modifications, Maintenance and Replacement for Hydropower	61390 ^{1/}
Facility Security Maintenance and Replacement for Environmental Stewardship	61491
Facility Security Physical Improvements and Modifications for Environmental Stewardship	61492
Facility Security Physical Improvements, Modifications, Maintenance and Replacement for Environmental Stewardship	61490 ^{1/}
Facility Security Maintenance and Replacement for Recreation	61591
Facility Security Physical Improvements and Modifications for Recreation	61592
Facility Security Physical Improvements, Modifications, Maintenance and Replacement for Recreation	61590 ^{1/}
Fisheries Management – Fish Hauling Activities and Fish Passage Structures	60415
Fisheries Management - Operation of Fish Hatcheries	60414
Formal Periodic Inspections and Reports	60232*
Formal Periodic Inspections and Reports	60332*
Formal Periodic Inspections and Reports	60132*
Hydraulic Expenses	60312**
Inspection of Ecosystem Restoration Projects	60422
Inspections of Completed Works - Local Protection Projects	60223*
Instrumentation, Data Collection and Analysis	60131**
Instrumentation, Data Collection and Analysis	60231**
Instrumentation, Data Collection and Analysis	60331**
Joint Activities for Maintenance	616— ^{1/}
Joint Activities for Operations (Cat/Class 300 Multipurpose Hydropower Projects ONLY)	606— ^{1/}

TABLE III-4-2	
Work Category Codes – Alphabetically Ordered	
DESCRIPTION	WORK CATEGORY CODE
Joint Costs for Boundary Monumentation and Rectification	61653
Joint Costs for Construction and Maintenance of Dredged Material Disposal Facilities	61622
Joint Costs for Dam Safety Activities	60630 ^{1/}
Joint Costs for Dam Safety Assurance Studies	60633
Joint Costs for Dam Safety Remediation of Deficiencies	61630
Joint Costs for Dredging	61620 ^{1/}
Joint Costs for Dredging Activities	61621
Joint Costs for Environmental Compliance (Remedial Actions) Activities	61660
Joint Costs for Environmental Compliance Management Activities	60660
Joint Costs for Facility Security	60690 ^{1/}
Joint Costs for Facility Security Assessments	60691
Joint Costs for Facility Security Guards, Monitoring Activities	60692
Joint Costs for Facility Security Physical Improvements, Modifications, Maintenance and Replacement	61690 ^{1/}
Joint Costs for Facility Security Maintenance and Replacement	61691
Joint Costs for Facility Security Physical Improvements and Modifications	61692
Joint Costs for Formal Periodic Inspections and Reports	60632*
Joint Costs for Instrumentation, Data Collection and Analysis	60631**
Joint Costs for Land Acquisition and Disposal Management Activities, Settlement of Claims, and Audits	61651
Joint Costs for Maintenance Activities Excluding Dredging	61610
Joint Costs for Major Rehabilitation Evaluation Reports	60622
Joint Costs for Operations Activities	60610**
Joint Costs for Real Estate Activities	61650 ^{1/}
Joint Costs for Real Estate Management Activities	60650*
Joint Costs for Resolution of Real Estate Encroachments	61652
Joint Costs for Studies and Surveys	60621*
Joint Costs for Studies and Surveys	60620 ^{1/}
Joint Costs for Water Management (Control and Quality) Activities - Operation of Water Control Data Systems	60642
Joint Costs for Water Management (Control and Quality) Activities - Analysis and Studies	60641
Joint Costs for Water Management (Control and Quality) Activities	60640 ^{1/}

TABLE III-4-2	
Work Category Codes – Alphabetically Ordered	
DESCRIPTION	WORK CATEGORY CODE
Joint Costs for Water Management Equipment Activities	61640
Land Acquisition and Disposal Management Activities, Settlement of Claims, and Audits for Flood Risk Management	61251
Land Acquisition and Disposal Management Activities, Settlement of Claims, and Audits for Environmental Stewardship	61451
Land Acquisition and Disposal Management Activities, Settlement of Claims, and Audits for Navigation	61151
Land Acquisition and Disposal Management Activities, Settlement of Claims, and Audits for Recreation	61551
Land Acquisition and Disposal Management Activities, Settlement of Claims, and Audits for Hydropower	61351
Law Enforcement – Costs and Supervision of Law Enforcement Agreements	60513
Maintenance for Environmental Stewardship	61410 ^{1/}
Maintenance for Environmental Stewardship Functions	614— ^{1/}
Maintenance for Flood Risk Management	61210 ^{1/}
Maintenance for Flood Risk Management Functions	612— ^{1/}
Maintenance for Hydropower Functions	613— ^{1/}
Maintenance for Navigation Functions	611— ^{1/}
Maintenance for Recreation	61510 ^{1/}
Maintenance for Recreation Functions	615— ^{1/}
Maintenance for Water Supply Functions	608— ^{1/}
Maintenance of Dams, Reservoirs, Other Structures, Service Facilities, Permanent Operating Equipment, Etc. for Flood Risk Management	61211
Maintenance of Dikes, Revetments, Breakwaters and Similar Structures for the Mississippi River and Tributaries (MR&T)	61212
Maintenance of Electric Plant for Hydropower	61313
Maintenance of Electric Plant for Hydropower	6131_
Maintenance of Fisheries, Fish Haulage Activities and Fish Passage Structures	61414
Maintenance of Hydraulic Structures for Hydropower	61312
Maintenance of Locks, Dams, Reservoirs, Levees, Other Structures, Service Facilities, Permanent Operating Equipment, Etc. for Navigation	61110
Maintenance of Miscellaneous Hydraulic Plant for Hydropower	61314
Maintenance of Miscellaneous Hydraulic Plant for Hydropower	61314
Maintenance of Natural Resources Facilities for Environmental Stewardship	61411

TABLE III-4-2	
Work Category Codes – Alphabetically Ordered	
DESCRIPTION	WORK CATEGORY CODE
Maintenance of Power Plants, Dams, Reservoirs, Service Facilities, Permanent Operating Equipment, Etc. for Hydropower	61310 ^{1/}
Maintenance of Power Plants, Dams, Reservoirs, Service Facilities, Permanent Operating Equipment, Etc. for Hydropower	61310 ^{1/}
Maintenance of Project Gates, Specific Water Supply Conduits, Permanent Operating Equipment, Etc. for Water Supply	61810
Maintenance of Recreation Facilities, Other Operating Equipment, Etc.	61511
Maintenance of Special Status Species for Environmental Stewardship	61418
Maintenance of Visitor Centers	61514
Maintenance of Natural Resources Mitigation Features for Environmental Stewardship	61413
Maintenance Supervision for Hydropower	61311
Major Rehabilitation Evaluation Reports	60122
Major Rehabilitation Evaluation Reports	60325
Major Rehabilitation Evaluation Reports	60222
Management and Curation of Archeological and Cultural Resources	60412
Management of Natural Resources for Environmental Stewardship	60411
Management of Special Status Species for Environmental Stewardship	60418
Management of Natural Resources Mitigation Features	60413
Miscellaneous Hydraulic Power Generation Expenses	60314**
Mitigation of Archeological and Cultural Resources	61412
Modernization of recreation Features	61515
NEPP National Emergency Preparedness Program	60710 ^{1/}
NEPP National Emergency Response / Event	60717
NEPP Management and Operations	60711
NEPP Requirements Analysis and Studies	60712
NEPP Support of Emergency Ops Ctr	60713
NEPP Training and Exercises	60716
Operation for Environmental Stewardship	60410 ^{1/}
Operation for Environmental Stewardship Functions	604— ^{1/}
Operation for Flood Risk Management Functions	602— ^{1/}
Operation for Hydropower Functions	603— ^{1/}
Operation for Navigation Functions	601— ^{1/}
Operation for Recreation	60510 ^{1/}

TABLE III-4-2	
Work Category Codes – Alphabetically Ordered	
DESCRIPTION	WORK CATEGORY CODE
Operation for Recreation Functions	605— ^{1/}
Operation for Water Supply	60810 ^{1/}
Operation for Water Supply Functions	608— ^{1/}
Operation of Dams, Power Plants, Reservoirs, Service Facilities, Permanent Operating Equipment, Etc. for Hydropower	60310 ^{1/}
Operation of Locks, Dams, Reservoirs, Service Facilities, Permanent Operating Equipment, Etc. for Flood Risk Management	60210**
Operation of Locks, Dams, Reservoirs, Service Facilities, Permanent Operating Equipment, Etc. for Navigation	60110 **
Operation of Project Gates, Specific Water Supply Conduits, Permanent Operating Equipment, Etc. for Water Supply	60811
Operation/management of Recreation Areas/facilities, Reservoirs, Service Facilities and Equipment, Etc. for Recreation	60511**
Operation/management of Visitor Centers	60514
Operations - Supervision and Engineering	60311**
Pest Management for Environmental Stewardship	60419
Purchase/maintenance of Water Management (Control and Quality) Equipment for Navigation	61140
Purchase/maintenance of Water Management (Control and Quality) Equipment for Flood Risk Management	61240
Purchase/maintenance of Water Management (Control and Quality) Equipment for Hydropower	61340
Purchase/maintenance of Water Management Equipment (Control and Quality) for Environmental Stewardship	61440
Purchase/maintenance of Water Management Equipment (Control and Quality) for Recreation	61540
Real Estate for Environmental Stewardship	61450 ^{1/}
Real Estate for Flood Risk Management	61250 ^{1/}
Real Estate for Hydropower	61350 ^{1/}
Real Estate for Navigation	61150 ^{1/}
Real Estate for Recreation	61550 ^{1/}
Real Estate Management for Environmental Stewardship	60450*
Real Estate Management for Flood Risk Management	60250*
Real Estate Management for Hydropower	60350*
Real Estate Management for Navigation	60150*

TABLE III-4-2	
Work Category Codes – Alphabetically Ordered	
DESCRIPTION	WORK CATEGORY CODE
Real Estate Management for Recreation	60550*
Remaining O&M Funded Major Rehabilitation (Comprehensive Replacement) Projects for Hydropower	61370 ^{1/}
Remaining O&M Funded Major Rehabilitation (Comprehensive Replacement) Projects for Navigation	61170
Reserved	60530
Reserved	61530
Reserved	60430
Reserved	61430
Resolution of Real Estate Encroachments for Environmental Stewardship	61452
Resolution of Real Estate Encroachments for Flood Risk Management	61252
Resolution of Real Estate Encroachments for Hydropower	61352
Resolution of Real Estate Encroachments for Navigation	61152
Resolution of Real Estate Encroachments for Recreation	61552
Shoreline Management	60417
Studies and Surveys	60121*
Studies and Surveys	60221
Studies and Surveys - Electric Expenses	60323
Studies and Surveys - Hydraulic Expenses	60322
Studies and Surveys - Miscellaneous Hydraulic Power Generation Expenses	60324
Studies and Surveys - Supervision and Engineering	60321
Studies and Surveys for Flood Risk Management	60220 ^{1/}
Studies and Surveys for Hydropower	60320 ^{1/}
Studies and Surveys for Navigation	60120 ^{1/}
Studies and Surveys for Recreation	60520
Studies and Surveys for Water Supply	60820
Studies, Surveys and Inventories for Environmental Stewardship	60421
Studies, Surveys and Inventories for Environmental Stewardship	60420 ^{1/}
Water Management (Control and Quality) Activities - Analysis and Studies for Flood Risk Management	60241
Water Management (Control and Quality) Activities - Analysis and Studies for Environmental Stewardship	60441
Water Management (Control and Quality) Activities - Analysis and Studies for Recreation	60541

TABLE III-4-2 Work Category Codes – Alphabetically Ordered	
DESCRIPTION	WORK CATEGORY CODE
Water Management (Control and Quality) Activities - Analysis and Studies for Navigation	60141
Water Management (Control and Quality) Activities - Analysis and Studies for Hydropower	60341
Water Management (Control and Quality) Activities - Operation of Water Control Data Systems for Environmental Stewardship	60442
Water Management (Control and Quality) Activities - Operation of Water Control Data Systems for Flood Risk Management	60242
Water Management (Control and Quality) Activities - Operation of Water Control Data Systems for Recreation	60542
Water Management (Control and Quality) Activities - Operation of Water Control Data Systems for Navigation	60142
Water Management (Control and Quality) Activities – Operation of Water Control Data Systems for Hydropower	60342
Water Management (Control and Quality) Activities for Environmental Stewardship	60440 ^{1/}
Water Management (Control and Quality) Activities for Flood Risk Management	60240 ^{1/}
Water Management (Control and Quality) Activities for Hydropower	60340 ^{1/}
Water Management (Control and Quality) Activities for Navigation	60140 ^{1/}
Water Management (Control and Quality) Activities for Recreation	60540 ^{1/}
Water Supply Agreements	60812

Footnotes:

1/ SUMMARY COST ACCOUNT/WORK CATEGORY CODE - Costs may not be charged directly to these accounts.

2/ PERIODIC INSPECTIONS AND REPORTS, AND INSTRUMENTATION, DATA COLLECTION, AND ANALYSIS are to be included in the minimum program for the project to meet minimum legal responsibilities for operations and safety. this footnote applies to the work category codes 60131, 60132, 60231, 60232, and 60331, 60332, 60631 and 60632.

*Work Category Codes marked with an asterisk require added data in project work description, justification statement, or output measures.

**Although Work Category Codes marked with double asterisk require no description or funding argument, requested resources will be in consonance with the funding increment and prior year experience.

III-4-3. O&M Work Category Codes - Matrixes and Definitions.

a. Operation Work Category Code Matrix by Business Line. See TABLE III-4-3.a.

b. Maintenance Work Category Code Matrix by Business Line. See TABLE III-4-3.b.

NOTE: TABLE III-4-3.a. and TABLE III-4-3.b. Maintenance Work Category Code Matrix (by Business Line). See embedded excel file below.

TABLES III-4-3.a. and III-4-3.b.

Operation/Maintenance Work Category Code Matrix (by Business Line)



Table III-4-3a,b

c. Work Category Codes and Definitions – O&M Operations Account. The Operation functions are broken down into Work Category Codes, together with a description of work to be performed. See TABLE III-4-4 below.

TABLE III-4-4

Work Category Codes and Definitions
Operations Accounts By Business Program:

Navigation (601--)
Flood Risk Management (602--)
Hydropower (603--)
Environmental Stewardship (604--)
Recreation (605--)
Joint Activities (606--)
NEPP (607--)
Water Supply (608--)

A Breakdown of Work Category Codes (WCCs) and descriptions under these functions is on the following pages:

WORK CATEGORY CODE: 60110 – Operations for Navigation.

WORK CATEGORY DESCRIPTION: Operations of Locks, Dams, Reservoirs, Service Facilities (Buildings, Grounds, Utilities, and Roads, Railroads and Bridges), Permanent Operating Equipment, etc. for navigation features.

Includes all costs for the operation; necessary materials, supplies, equipment and transportation costs associated with operations; associated hired labor and contract support; routine materials and supplies; and other costs;

- of lock gates and/or associated equipment; maintaining lock records; removing debris, ice and snow, cleanup of lock facilities; routine adjusting of meters, relays, instruments, radios and regular equipment; lubrication of equipment;

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- of dam structures and appurtenant equipment such as spillway gates, intake and outlet works, and sluiceways for reservoir regulation; removing and disposing of ice, snow, trash, and debris on or in the vicinity of the dam or dam structures; cleanup of dam structures and facilities; routine testing and adjustment of gauges, meters, instruments, and relays in dam structures; disposal and control of weeds, brush, trees, and aquatic growth in the vicinity of dam structures; and grass cutting on earth-fill dams. Includes all costs for dam safety/failure training of project personnel, preparation of flood emergency plans, dam contingency plans, dam surveillance plans, and provision for technical assistance to local interests concerning dam failure. When this account includes municipal or industrial water delivery activities, a separate sub-element should be established in CEFMS to record appropriate costs for each such facility for cost allocation purposes;
- to perform reservoir inspections and patrols, removal and control of trash and debris (major periodic or one-time removal of growth and debris from the reservoir should be recorded in Work Category Code 61110); minor bank erosion control; minor cleaning of reservoir area for weeds, brush, trees, and aquatic growth; boundary surveillance and routine, recurring maintenance of boundary monumentation at projects without natural resource activities; insect control and elimination of health and safety hazards;
- of project-owned permanent facilities such as administration and shop buildings, storage and garage buildings and areas, community buildings, local streets and sidewalks, landscaping, utility facilities such as electric, gas, water, and sewage, all security and protective measures, and permanent roads, including the road across the top of the dam, and parking areas near the dam, railroads, and bridges required for access and other purposes in connection with the operation of a project. It also includes bridges provided as a project feature for the passage of highway and railway traffic over improved channels. Direct costs included are snow and ice removal from project roads, parking areas and walkways; sanding and salting project roads, parking areas and walkways; minor patching, signs, ditch cleaning, culvert cleaning and similar duties; bridge operation; cleanup of project roads, railroads, and bridges. Buildings which house operating machinery and serve other purposes as well are included in this activity, but the costs to operate the machinery are charged to the appropriate Work Categories. Buildings which house specific operating machinery, spare parts, equipment, etc., will be charged to the appropriate Work Categories. This activity includes costs of buildings, grounds and utilities related to the operation of the Los Angeles-Long Beach and San Francisco Bay hydraulic models located in South Pacific Division and it does not include costs associated with recreation facilities and areas which will be included in Work Category Code 60511; of all tools and equipment, including laboratory, shop, warehousing, communications, surveys, and transportation equipment, office furniture and equipment. Project-owned sedimentation and degradation measuring facilities, rainfall and stream-gauging devices, fixed sand bypassing systems, and like equipment are also included. Includes direct costs of automotive and other equipment. Vehicle accounts will be maintained by group classifications as provided for Revolving Fund vehicles; for prevention of obstructive and injurious deposits at NAD projects as authorized by the Act approved 29 June 1888, as amended;.
- including all costs for surveillance at harbors, channels, waterfront construction sites, and at overboard ocean dumping sites, costs to administer outstanding enforcement actions on prior noted violations of Federal statutes, and any costs required for ground or aerial surveillance.

WORK CATEGORY CODE: 60121 – Studies and Surveys for the Navigation Function.

WORK CATEGORY DESCRIPTION: Studies and Surveys including project condition surveys, dredging studies, etc. for navigation features.

Includes all costs to perform surveys for the purpose of determining elevation, grade and sedimentation conditions in navigation projects, investigation of sunken vessels, and to prepare dredging studies. For program management purposes, all projects with funding requirements (dredging or otherwise) under the Non-deferrable levels should have any needed surveys programmed under the project name. All other

surveys should be programmed in aggregation under PWID 14600: Project Condition Surveys. Funding for PWID 14600: Project Condition Surveys, will be adjusted after overall dredging program levels are determined.

WORK CATEGORY CODE: 60122 - Studies and Surveys for Navigation - Major Rehabilitation Evaluation Reports.

WORK CATEGORY DESCRIPTION: Major Rehabilitation Evaluation Reports for navigation features.

Includes all costs to initiate new, or continue ongoing, major rehabilitation evaluation reports. Operation and Maintenance (O&M) funds are to be used only until Construction (C) funds are allocated to the project.

WORK CATEGORY CODE: 60123 - Studies and Surveys for Navigation - Environmental Studies and Monitoring for Dredging Purposes.

WORK CATEGORY DESCRIPTION: Environmental Studies and Monitoring for Dredging Purposes.

Includes all costs for environmental studies and monitoring for dredging purposes including all costs of study and analysis activities associated with long range environmental activities related to waterways. These activities are needed to ensure that appropriate information and requirements are fulfilled so that E&D for dredging can be completed on a timely basis. Dredged Material Management Plans (DMMPs) are included in this Work Category. Environmental requirements to perform maintenance dredging of Federal channels (e.g. water quality certification, bio-assays, water quality testing, Environmental Impact Statements, and environmental assessments) should also be included in this Work Category.

WORK CATEGORY CODE: 60131 - Instrumentation, Data Collection and Analysis for Dam Safety related to the Navigation Function.

WORK CATEGORY DESCRIPTION: Instrumentation for Engineering Analysis and Continuing Evaluation Data Gathering Inspections, and Data Analysis for Dam Safety related to navigation features.

Includes all costs for the operation of instruments in existing dam structures for safety evaluation and all costs of obtaining, analyzing and reporting instrumentation data for purposes consistent with an approved plan. This includes instrumentation for measuring horizontal and vertical movement, stresses and strains, pore pressure, phreatic surfaces, seismic effects, and seepage clarity and quality.

WORK CATEGORY CODE: 60132 - Formal Periodic Inspections and Reports for Dam Safety related to the Navigation Function.

WORK CATEGORY DESCRIPTION: Formal Periodic Inspections and Reports for Dam Safety related to navigation features.

Includes all costs related to the scheduled periodic inspections and reporting of projects and bridges needed to meet inspection frequency requirements of ER 1110-2-100 as follows:

- a. Dams, locks and dams, initial and second inspections if funded under O&M General, and high hazard structures.
- b. Public Bridges.
- c. Structures whose failure would be a major loss to the national infrastructure or cause severe economic distress.

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d. Other projects where known conditions warrant inspections at a frequency more often than normal including revetments, dikes, groins, breakwaters, jetties, seawalls, piers and other similar structures provided in seas, lakes, rivers, canals, exposed tidal waters and harbors.

WORK CATEGORY CODE: 60133 - Dam Safety Assurance Studies related to the Navigation Function.

WORK CATEGORY DESCRIPTION: Dam Safety Assurance Studies for Dam Safety related to navigation features.

Includes all costs of reconnaissance studies and special engineering investigations for known or suspected dam safety deficiencies, e.g. seismic evaluations, seepage studies, erosion studies, etc.

WORK CATEGORY CODE: 60141 - Water Management (Control and Quality) Activities for Navigation - Analysis and Studies.

WORK CATEGORY DESCRIPTION: Water Management (Control and Quality) Activities - Analysis, Studies and Regulation Instructions for navigation features.

Includes all costs for personnel and space to manage the hydrologic, hydraulic and meteorological data required for water control and quality activities in accordance with the current water control/quality plan; all costs to prepare routine regulation instructions and runoff forecasts, coordinate with other agencies and entities, prepare water control manuals, disseminate water control information, training, travel and other associated costs required to make sound water control management decisions; all costs for reservoir and river analyses to improve the quality of water within and downstream from the reservoirs; and all costs related to studies of the means to mitigate water quality problems and studies to determine present and future water quality needs. Also includes all costs for water management studies to improve efficiency or mitigate constraints on approved plans of regulation, annual updating of notification lists, and funds transferred to other agencies and any similar items needed to accomplish this activity. This includes development of the water quality component of water control manuals and daily decisions on multi-level releases and pro-rata share of office and computer facilities and other related costs associated with water management. Included also are costs to calibrate and make operational the forecasting and decision support models within the new Corps Water Management System (CWMS). Costs for data collection are included in Work Category Code 60142.

WORK CATEGORY CODE: 60142 - Water Management (Control and Quality) Activities for Navigation Operation of Water Control Data Systems.

WORK CATEGORY DESCRIPTION: Water Management (Control and Quality) Activities - Operation of Water Control Data Systems including Data Collection for navigation features.

Includes all costs for the operation of equipment, personnel and space to collect and process the hydrologic, hydraulic and meteorological data required for water control and quality activities in accordance with the current plan, data collection, and pro-rata share of office and computer facilities and other related costs associated with operations of water management data systems including the new Corps Water Management System (CWMS). Includes all costs to coordinate with other agencies and entities, training, travel, funds transferred to other agencies, and other associated costs required for operation of water management data systems. Costs for purchase and maintenance of new water control data systems equipment are included in Work Category Code 61140.

WORK CATEGORY CODE: 60150 - Real Estate Management for the Navigation Function.

WORK CATEGORY DESCRIPTION: Real Estate Management including Compliance, and Utilization Inspections for navigation features.

Includes all costs, including contractual services, incident to granting to others the use of and performing inspections of property for purposes such as commercial concessions, industrial uses, public park and recreation, quasi-public and group camp use, fish and wildlife habitat management, selected agricultural and grazing uses and reconveyance clauses (restrictions) in deeds. Also includes granting use of and performing inspections of property granted and reserved to others for purposes such as road, street, waterline, powerline, and communication rights-of-way, as well as requests to drill for oil or gas on Government owned property where no oil or gas lease is required, and other uses covered by easements, licenses, and permits. Includes report preparation, determination of compliance after vacation of property subsequent to expiration or revocation of grant, and corrective measures where non-compliance is noted. Also includes appraisals, surveys, mapping, negotiations, preparation and execution of outgrants, renewal, extension, cancellation/termination documents, responses to request for use of real or related personal property, Executive Order surveys and public land withdrawals (applies to the 11 western states). Includes costs of utilization inspections of real property under the control of or subject to a service agreement with the Corps or the Government, and real property accountability, including real property inventory updates and preparation of annual civil-owned property reports (GSA 1166).

WORK CATEGORY CODE: 60160 - Environmental Compliance Management for the Navigation Function.

WORK CATEGORY DESCRIPTION: Environmental Compliance Management for navigation features.

Includes all Navigation operational costs to comply with applicable Federal environmental laws and regulations, including the National Environmental Policy Act (NEPA), Safe Drinking Water Act, Resource Conservation and Recovery Act (RCRA), Clean Air Act, Hazardous Materials Transportation Act, Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), EO 13148, and applicable state and local regulations. Includes cost to complete annual environmental compliance assessment (external or internal). Federal, DOD and Corps of Engineers requirements are described in the ERGO/TEAM environmental assessment manuals. Includes all costs associated with management and oversight of environmental compliance operational activities related to the Navigation function. Includes costs associated with the following activities environmental compliance activities for maintenance shops supporting Navigation; environmental baseline inspection of outgrants and right-of-ways on lands allocated for operations; required personnel environmental training; development and update of required environmental plans for spill prevention, hazard communication, pollution prevention, hazardous material management; storage and handling of petroleum-oil & lubricants and preparation of pesticide reports and corresponding documentation. Includes costs associated with implementation and maintaining an Environmental Management System (EMS) which may be cost shared with other functions. Costs include salaries, training, materials, supplies, regulatory fees, drinking water and waste analysis, inspection of waste collection and disposal facilities. Costs associated with medical surveillance and other employee health and safety requirements are not included.

WORK CATEGORY CODE: 60170

WORK CATEGORY DESCRIPTION: Reserved.

WORK CATEGORY CODE: 60180

WORK CATEGORY DESCRIPTION: Reserved.

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WORK CATEGORY CODE: 60191 – Facility Security Assessments for Navigation.

WORK CATEGORY DESCRIPTION: Facility Security – Assessments, reviews, studies and analyses for navigation features.

Includes all costs to conduct and prepare security risk assessments, reviews, evaluations, studies and analyses for facility security related to criminal and terrorist activities. Includes costs to evaluate threats, consequences and security system effectiveness for navigation features. Also includes costs to prepare or revise Emergency Action Plans and plans to address facility protection and security, training and appropriate coordination with other agencies as they relate to criminal and terrorist activities. Costs for guards and surveillance activities are included in Work Category Code 60192, and costs to acquire, install and maintain structural and physical improvements for security are included in Work Category Code 61190.

WORK CATEGORY CODE: 60192 – Facility Security Guards, Monitoring Activities for Navigation.

WORK CATEGORY DESCRIPTION: Facility Security – Guards and Monitoring Activities for navigation features.

Includes all costs for guards and security system monitoring activities including training of personnel for facility security related to criminal and terrorist activities. Costs for assessments are included in Work Category Code 60191, and costs to acquire, install and maintain structural and physical improvements for security are included in Work Category Code 61190.

WORK CATEGORY CODE: 60210 - Operations for Flood Risk Management.

WORK CATEGORY DESCRIPTION: Operations of Dams, Reservoirs, Levees, Hurricane Barrier Gates, and Other Flood Risk Management Non-Dam Structures, Pumping Plants, Service Facilities (Buildings, Grounds, Utilities, and Roads, Railroads and Bridges), Permanent Operating Equipment, etc. for flood risk management features.

Includes all costs for the operation; necessary materials, supplies, equipment and transportation costs associated with operations; associated hired labor and contract support; routine materials and supplies; and other costs:

- of dam structures and appurtenant equipment such as spillway gates, intake and outlet works, and sluiceways for reservoir regulation; removing and disposing of ice, snow, trash, and debris on or in the vicinity of the dam or dam structures; cleanup of dam structures and facilities; routine testing and adjustment of gauges, meters, instruments, and relays in dam structures; disposal and control of weeds, brush, trees, and aquatic growth in the vicinity of dam structures; and grass cutting on earth-fill dams. Includes all costs for dam safety/failure training of project personnel, preparation of flood emergency plans, dam contingency plans, dam surveillance plans, and provision for technical assistance to local interests concerning dam failure. When this account includes municipal or industrial water delivery activities, a separate sub-element should be established in CEFMS to record appropriate costs for each such facility for cost allocation purposes;

- to perform reservoir inspections and patrols, removal and control of trash and debris (major periodic or one-time removal of growth and debris from the reservoir should be recorded under Work Category Code 61210); minor bank erosion control; minor cleaning of reservoir area for weeds, brush, trees, and aquatic growth; boundary surveillance and routine, recurring maintenance of boundary monumentation at projects without natural resource activities, insect control and elimination of health and safety hazards of levees, hurricane barrier gates, and other gated non-dam flood risk management structures; vegetation control on flood risk management structures; removal of snow and ice from structures;

- of pumping plants, pumps and associated equipment; collecting and maintaining operational records; routine replacement, purification and testing of insulating, lubricating and hydraulic oils; lubricants and lubricating equipment; minor maintenance of electrical equipment, cleaning, testing, and adjustment of motor starters, relays, meters, and similar equipment; minor maintenance and repair of pumps, motors, engines, trash raking equipment, gate hoists, gates, fire fighting, and other equipment required for operation; minor maintenance of buildings, roads, and grounds; removal of debris, ice, and snow;
- of project-owned permanent facilities such as administration and shop buildings, storage and garage buildings and areas, community buildings, local streets and sidewalks, landscaping, utility facilities such as electric, gas, water, and sewage, all security and protective measures, and permanent roads, including the road across the top of the dam, and parking areas near the dam, railroads, and bridges required for access and other purposes in connection with the operation of a project. It also includes bridges provided as a project feature for the passage of highway and railway traffic over improved channels. Direct costs included are snow and ice removal from project roads, parking areas and walkways; sanding and salting project roads, parking areas and walkways; minor patching, signs, ditch cleaning, culvert cleaning and similar duties; bridge operation; cleanup of project roads, railroads, and bridges. Buildings which house operating machinery and serve other purposes as well are included in this activity, but the costs to operate the machinery are charged to the appropriate Work Categories. Buildings which house specific operating machinery, spare parts, equipment, etc., will be charged to the appropriate Work Categories. This activity does not include costs associated with recreation facilities and areas which will be included in Work Category Code 60511;
- of all tools and equipment, including laboratory, shop, warehousing, communications, surveys, and transportation equipment, office furniture and equipment. Project-owned sedimentation and degradation measuring facilities, rainfall and stream-gauging devices, fixed sand bypassing systems, and like equipment are also included. Includes direct costs of automotive and other equipment. Vehicle accounts will be maintained by group classifications as provided for Revolving Fund vehicles.
- Does not include specific Water Supply activities as in the past. Water Supply activities including that required by water supply contracts, collections including delinquencies and the renegotiation of existing water supply contracts are now included in WCCs 60811 and 60812.

WORK CATEGORY CODE: 60221 - Studies and Surveys for the Flood Risk Management Function.

WORK CATEGORY DESCRIPTION: Non-Navigation Project Condition Studies, including Dredging Studies, for flood risk management features.

Includes all costs to prepare reconnaissance reports or studies related to the maintenance and rehabilitation of Civil Works projects such as foundation reports, embankment criteria, O&M manuals, sediment surveys at flood risk management projects, surveillance of northern boundary waters, and hydraulic model analyses prior to the engineering and design phase. Does not include Water Supply reallocation study costs as in the past. Water Supply reallocation study costs are now included in WCC 60820.

WORK CATEGORY CODE: 60222 - Studies and Surveys for Flood Risk Management – Major Rehabilitation Evaluation Reports.

WORK CATEGORY DESCRIPTION: Major Rehabilitation Evaluation Reports for flood risk management features.

Includes all costs to initiate new, or continue ongoing, major rehabilitation evaluation reports. Operation and Maintenance (O&M) funds are to be used only until Construction (C) funds are allocated to the project.

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WORK CATEGORY CODE: 60223 – Studies, Surveys and Inspections of Completed Works – Local Protection Projects.

WORK CATEGORY DESCRIPTION: Studies, Surveys and Inspections of Local Protection Projects for flood risk management features.

Includes all costs related to the inspection of Federally constructed, locally operated and maintained projects to ensure compliance with local cooperative agreements. This Work Category does not include costs for projects covered by PL 84-99. Includes all costs for technical review and approval of sponsor-proposed alterations, improvements, excavation or construction within the limits of the project right-of-way; advice given to sponsors related to the effects of such activities on the function/operation of the project and information on acceptable construction methods; all costs to update O&M Manuals; initial funding of reconnaissance or evaluation reports; and PED for major rehabilitation, dam safety assurance, deficiency correction and reconstruction as applicable until Construction (C) funds are allocated.

WORK CATEGORY CODE: 60231 - Instrumentation, Data Collection and Analysis for Dam Safety related to the Flood Risk Management Function.

WORK CATEGORY DESCRIPTION: Instrumentation for Engineering Analysis and Continuing Evaluation Data Gathering Inspections, and Data Analysis for Dam Safety related to flood risk management features.

Includes all costs for the operation of instruments in existing dam structures for safety evaluation and all costs of obtaining, analyzing and reporting instrumentation data for purposes consistent with an approved plan. This includes instrumentation for measuring horizontal and vertical movement, stresses and strains, pore pressure, phreatic surfaces, seismic effects, and seepage clarity and quality.

WORK CATEGORY CODE: 60232 - Formal Periodic Inspections and Reports for Dam Safety related to the Flood Risk Management Function.

WORK CATEGORY DESCRIPTION: Formal Periodic Inspections and Reports for Dam Safety related to flood risk management features.

Includes all costs related to the scheduled periodic inspections and reporting of projects and bridges needed to meet inspection frequency requirements of ER 1110-2-100 as follows:

- a. Dams, locks and dams, initial and second inspections if funded under O&M General, and high hazard structures.
- b. Public Bridges.
- c. Structures whose failure would be a major loss to the national infrastructure or cause severe economic distress.
- d. Other projects where known conditions warrant inspections at a frequency more often than normal.

WORK CATEGORY CODE: 60233 - Dam Safety Assurance Studies related to the Flood Risk Management Function.

WORK CATEGORY DESCRIPTION: Dam Safety Assurance Studies for Dam Safety related to flood risk management features.

Includes all costs of reconnaissance studies and special engineering investigations for known or suspected dam safety deficiencies, e.g. seismic evaluations, seepage studies, erosion studies, etc.

WORK CATEGORY CODE: 60241 - Water Management (Control and Quality) Activities for Flood Risk Management - Analysis and Studies.

60241 - Water Management (Control and Quality) Activities for Flood Risk Management - Analysis and Studies.

Includes all costs for personnel and space to manage the hydrologic, hydraulic and meteorological data required for water control and quality activities in accordance with the current water control/quality plan; all costs to prepare routine regulation instructions and runoff forecasts, coordinate with other agencies and entities, prepare water control manuals, disseminate water control information, training, travel and other associated costs required to make sound water control management decisions; all costs for reservoir and river analyses to improve the quality of water within and downstream from the reservoirs; and all costs related to studies of the means to mitigate water quality problems and studies to determine present and future water quality needs. Also includes all costs for water management studies to improve efficiency or mitigate constraints on approved plans of regulation, annual updating of notification lists, and funds transferred to other agencies and any similar items needed to accomplish this activity. This includes development of the water quality component of water control manuals and daily decisions on multi-level releases and pro-rata share of office and computer facilities and other related costs associated with water management. Included also are costs to calibrate and make operational the forecasting and decision support models within the new Corps Water Management System (CWMS). Costs for data collection are included in Work Category Code 60242.

WORK CATEGORY CODE: 60242 - Water Management (Control and Quality) Activities for Flood Risk Management - Operation of Water Control Data Systems.

WORK CATEGORY DESCRIPTION: Water Management (Control and Quality) Activities - Operation of Water Control Data Systems including Data Collection for flood risk management features.

Includes all costs for the operation of equipment, personnel and space to collect and process the hydrologic, hydraulic and meteorological data required for water control and quality activities in accordance with the current plan, data collection, and pro-rata share of office and computer facilities and other related costs associated with operations of water management data systems including the new Corps Water Management System (CWMS). Includes all costs to coordinate with other agencies and entities, training, travel, funds transferred to other agencies, and other associated costs required for operation of water management data systems. Costs for purchase and maintenance of new water control data systems equipment are included in Work Category Code 61240.

WORK CATEGORY CODE: 60250 - Real Estate Management for the Flood Risk Management Function.

WORK CATEGORY DESCRIPTION: Real Estate Management including Compliance, and Utilization Inspections for flood risk management features.

Includes all costs, including contractual services, incident to granting to others the use of and performing inspections of property for purposes such as commercial concessions, industrial uses, public park and recreation, quasi-public and group camp use, fish and wildlife habitat management, selected agricultural and grazing uses and reconveyance clauses (restrictions) in deeds. Also includes granting use of, and performing inspections of property granted and reserved to others for purposes such as road, street, waterline, powerline, and communication rights-of-way, as well as requests to drill for oil or gas on

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Government owned property where no oil or gas lease is required, and other uses covered by easements, licenses, and permits. Includes report preparation, determination of compliance after vacation of property subsequent to expiration or revocation of grant, and corrective measures where non-compliance is noted. Also includes appraisals, surveys, mapping, negotiations, preparation and execution of outgrants, renewal, extension, cancellation/termination documents, responses to request for use of real or related personal property, Executive Order surveys and public land withdrawals (applies to the 11 western states). Includes costs of utilization inspections of real property under the control of or subject to a service agreement with the Corps or the Government. Includes reconciliation of financial records with flood risk management land and mineral lease receipts, and real property accountability, including real property inventory updates and preparation of annual civil-owned property reports (GSA 1166).

WORK CATEGORY CODE: 60260 - Environmental Compliance Management for the Flood Damage Reduction Function.

WORK CATEGORY DESCRIPTION: Environmental Compliance Management for flood risk management features.

Includes all Flood Risk Management operational costs to comply with applicable Federal environmental laws and regulations, including the National Environmental Policy Act (NEPA), Safe Drinking Water Act, Resource Conservation and Recovery Act (RCRA), Clean Air Act, Hazardous Materials Transportation Act, Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), EO 13148, and applicable state and local regulations. Includes cost to complete annual environmental compliance assessment, external and internal. Federal, DOD and Corps of Engineers requirements are described in the ERGO/TEAM environmental assessment manuals. Includes all costs associated with management and oversight of environmental compliance operational activities related to the Flood Risk Management Function. Includes costs associated with the following activities environmental compliance activities for maintenance shops supporting Flood Risk Management; environmental baseline inspection of outgrants and right-of-ways on lands allocated for operations; required personnel environmental training; development and update of required environmental plans for spill prevention, hazard communication, pollution prevention, hazardous material management; underground storage tanks, storage and handling of pesticides and petroleum-oil & lubricants. Includes costs associated with implementation and maintaining an Environmental Management System (EMS) which may be cost shared with other business lines. Includes costs associated with implementation and maintaining an Environmental Management System (EMS) which may be cost shared with other functions. Costs include salaries, training, materials, supplies, regulatory fees, drinking water and waste analysis, inspection of waste collection and disposal facilities, and internal and external environmental compliance assessments. Costs associated with medical surveillance and other employee health and safety requirements are not included. This Work Category also includes all costs for the management and curation of Orphan Collections and archeological materials collected from early local protection projects and subsequently turned over to local sponsors for operation and maintenance. All other costs for management and curation of archeological resources are included in Work Category Code 60412.

WORK CATEGORY CODE: 60270

WORK CATEGORY DESCRIPTION: Reserved.

WORK CATEGORY CODE: 60280

WORK CATEGORY DESCRIPTION: Reserved.

WORK CATEGORY CODE: 60291 – Facility Security Assessments for Flood Risk Management

WORK CATEGORY DESCRIPTION: Facility Security – Assessments, reviews, studies and analyses for

flood risk management features.

Includes all costs to conduct and prepare security risk assessments, reviews, evaluations, studies and analyses for facility security related to criminal and terrorist activities. Includes costs to evaluate threats, consequences and security system effectiveness for flood risk management features. Also includes costs to prepare or revise Emergency Action Plans and plans to address facility protection and security, training and appropriate coordination with other agencies as they relate to criminal and terrorist activities. Costs for guards and surveillance activities are included in Work Category Code 60292, and costs to acquire, install and maintain structural and physical improvements for security are included in Work Category Code 61290.

WORK CATEGORY CODE: 60292 – Facility Security Guards, Monitoring Activities for Flood Risk Management.

WORK CATEGORY DESCRIPTION: Facility Security – Guards and Monitoring Activities for flood risk management features.

Includes all costs for guards and security system monitoring activities including training of personnel for facility security related to criminal and terrorist activities. Costs for assessments are included in Work Category Code 60291, and costs to acquire, install and maintain structural and physical improvements for security are included in Work Category Code 61290.

WORK CATEGORY CODE: 60310 (60311-60314) - Hydropower Operations. Costs for this function will be sub-divided as follows:

60311 - Hydropower Operations - Supervision and Engineering, FERC #535. Costs for labor, materials and other expenses incurred in the general supervision of the operation of hydraulic generating stations. Direct supervision of specific activities will be charged to the appropriate accounts;

60312 - Hydropower Operations - Hydraulic Expenses, FERC #537. Costs for labor, materials and other expenses incurred in operating power intake works whether or not the powerhouse is an integral part of the intake dam;

60313 - Hydropower Operations - Electric Expenses, FERC #538. Costs for labor, materials and other expenses incurred in operating turbines, generators, auxiliary apparatus, switchgear and other electric equipment to the point where electricity leaves for transmission by the marketing agency or other project. Keeping plant logs and records, and preparing reports of operation are included herein;

60314 - Hydropower Operations - Miscellaneous Hydraulic Power Generation Expenses, FERC #539. Costs for labor, materials and other expenses not specifically provided for in other power plant operation accounts. Includes costs for custodial and other administrative services.

WORK CATEGORY DESCRIPTION: Operations of Power Plants.

Includes specific costs for the general supervision and engineering associated with the operation; routine materials, supplies, equipment and transportation costs; associated hired labor and contract support; and other costs:

- of power plants including hydraulic generating stations, and their associated power intake structures, turbines, generators, auxiliary apparatus, switchgear, and other electrical or electronic equipment to the point where electricity leaves for transmission by the marketing agency or project. Includes miscellaneous costs such as custodial, administrative services and training power plant trainees including labor. Costs not specific to hydropower will be included in Work Category Code 60610.

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WORK CATEGORY CODE: 60320 (60321-60324) - Studies and Surveys for the Hydropower Function
Costs for this function will be sub-divided as follows:

60321 - Studies and Surveys - Supervision and Engineering, FERC #535. Costs for labor materials and other expenses incurred in the general supervision of the operation of hydraulic generating stations. Direct supervision of specific activities will be charged to the appropriate accounts;

60322 - Studies and Surveys - Hydraulic Expenses, FERC #537. Costs for labor, materials and other expenses incurred in operating power intake works whether or not the powerhouse is an integral part of the intake dam;

60323 - Studies and Surveys - Electric Expenses, FERC #538. Costs for labor, materials and other expenses incurred in operating turbines, generators, auxiliary apparatus, switchgear and other electric equipment to the point where electricity leaves for transmission by the marketing agency or other project;

60324 - Studies and Surveys - Miscellaneous Hydraulic Power Generation Expenses, FERC #539. Costs for labor, materials and other expenses not specifically provided for in other power plant operation accounts.

WORK CATEGORY DESCRIPTION: Studies and Surveys for hydropower features.

Includes all costs to prepare reconnaissance reports or studies related to the maintenance and rehabilitation of hydropower projects such as foundation reports, embankment criteria, O&M manuals, sediment surveys and hydraulic model analyses prior to the engineering and design phase.

WORK CATEGORY CODE: 60325 - Studies and Surveys for Hydropower - Major Rehabilitation Evaluation Reports.

WORK CATEGORY DESCRIPTION: Major Rehabilitation Evaluation Reports for hydropower features.

Includes all costs for specific hydropower purposes to initiate new, or continue ongoing, major rehabilitation evaluation reports. Operation and Maintenance (O&M) funds are to be used only until Construction (C) funds are allocated to the project.

WORK CATEGORY CODE: 60331 - Instrumentation, Data Collection and Analysis for Dam Safety related to the Hydropower Function, FERC #537.

WORK CATEGORY DESCRIPTION: Instrumentation for Engineering Analysis and Continuing Evaluation Data Gathering Inspections, and Data Analysis for Dam Safety related to hydropower features.

Includes all specific costs for the operation of instruments in existing dam structures for safety evaluation and all costs of obtaining, analyzing and reporting instrumentation data for purposes consistent with an approved plan. This includes instrumentation for measuring horizontal and vertical movement, stresses and strains, pore pressure, phreatic surfaces, seismic effects, and seepage clarity and quality.

WORK CATEGORY CODE: 60332 - Formal Periodic Inspections and Reports for Dam Safety related to Hydropower Activities, FERC #537.

WORK CATEGORY DESCRIPTION: Formal Periodic Inspections and Reports for Dam Safety related to hydropower features.

Includes all specific costs related to the scheduled periodic inspections and reporting of projects and bridges needed to meet inspection frequency requirements of ER 1110-2-100 as follows:

- a. Dams, locks and dams, initial and second inspections if funded under O&M General, and high hazard structures.
- b. Public Bridges.
- c. Structures whose failure would be a major loss to the national infrastructure or cause severe economic distress.
- d. Other projects where known conditions warrant inspections at a frequency more often than normal.

WORK CATEGORY CODE: 60333 - Dam Safety Assurance Studies related to the Hydropower Function, FERC #537.

WORK CATEGORY DESCRIPTION: Dam Safety Assurance Studies for Dam Safety activities related to hydropower features.

Includes all specific costs of reconnaissance studies and special engineering investigations for known or suspected dam safety deficiencies, e.g. seismic evaluations, seepage studies, erosion studies, etc..

WORK CATEGORY CODE: 60341 - Water Management (Control and Quality) Activities for Hydropower - Analysis and Studies, FERC #537.

WORK CATEGORY DESCRIPTION: Water Management (Control and Quality) Activities - Analysis, Studies and Regulation Instructions for hydropower features.

Includes all costs for personnel and space to manage the hydrologic, hydraulic and meteorological data required for water control and quality activities in accordance with the current water control/quality plan; all costs to prepare routine regulation instructions and runoff forecasts, coordinate with other agencies and entities, prepare water control manuals, disseminate water control information, training, travel and other associated costs required to make sound water control management decisions; all costs for reservoir and river analyses to improve the quality of water within and downstream from the reservoirs; and all costs related to studies of the means to mitigate water quality problems and studies to determine present and future water quality needs. Also includes all costs for water management studies to improve efficiency or mitigate constraints on approved plans of regulation, annual updating of notification lists, and funds transferred to other agencies and any similar items needed to accomplish this activity. This includes development of the water quality component of water control manuals and daily decisions on multi-level releases and pro-rata share of office and computer facilities and other related costs associated with water management. Included also are costs to calibrate and make operational the forecasting and decision support models within the new Corps Water Management System (CWMS). Costs for data collection are included in Work Category Code 60342.

WORK CATEGORY CODE: 60342 - Water Management (Control and Quality) Activities for Hydropower - Operation of Water Control Data Systems, FERC #537.

WORK CATEGORY DESCRIPTION: Water Management (Control and Quality) Activities - Operation of Water Control Data Systems including Data Collection for hydropower features.

Includes all costs for the operation of equipment, personnel and space to collect and process the hydrologic, hydraulic and meteorological data required for water control and quality activities in accordance

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with the current plan, data collection, and pro-rata share of office and computer facilities and other related costs associated with operations of water management data systems including the new Corps Water Management System (CWMS). Includes all costs to coordinate with other agencies and entities, training, travel, funds transferred to other agencies and other associated costs required for operation of water management data systems. Costs for purchase and maintenance of new water control data systems equipment are included in Work Category Code 61340.

WORK CATEGORY CODE: 60350 - Real Estate Management for the Hydropower Function, FERC #537.

WORK CATEGORY DESCRIPTION: Real Estate Management including Compliance, and Utilization Inspections for hydropower features.

Includes all costs, including contractual services, incident to granting to others the use of and performing inspections of property for purposes such as commercial concessions, industrial uses, public park and recreation, quasi-public and group camp use, fish and wildlife habitat management, selected agricultural and grazing uses and reconveyance clauses (restrictions) in deeds. Also includes granting use of and performing inspections of property granted and reserved to others for purposes such as road, street, waterline, powerline, and communication rights-of-way, as well as requests to drill for oil or gas on Government owned property where no oil or gas lease is required, and other uses covered by easements, licenses, and permits. Includes report preparation, determination of compliance after vacation of property subsequent to expiration or revocation of grant, and corrective measures where non-compliance is noted. Also includes appraisals, surveys, mapping, negotiations, preparation and execution of outgrants, renewal, extension, cancellation/termination documents, responses to request for use of real or related personal property, Executive Order surveys and public land withdrawals (applies to the 11 western states). Includes costs of utilization inspections of real property under the control of or subject to a service agreement with the Corps or the Government, and real property accountability, including real property inventory updates and preparation of annual civil-owned property reports (GSA 1166).

WORK CATEGORY CODE: 60360 - Environmental Compliance Management for the Hydropower Function, FERC #539.

WORK CATEGORY DESCRIPTION: Environmental Compliance Management for hydropower features.

Includes all Hydropower operational costs to comply with applicable Federal environmental laws and regulations, including the National Environmental Policy Act (NEPA) Safe Drinking Water Act, Resource Conservation and Recovery Act (RCRA), Clean Air Act, Hazardous Materials Transportation Act, Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), EO 13148, and applicable state and local regulations. Includes cost to complete annual environmental compliance assessment, external and internal. Federal, DOD and Corps of Engineers requirements are described in the ERGO/TEAM environmental assessment manuals. Includes all costs associated with management and oversight of environmental compliance operational activities. related to the Hydropower function. Includes costs associated with implementation and maintaining and Environmental Management System (EMS). Costs include salaries, training, materials, supplies, regulatory fees, drinking water and waste analysis, inspection of waste collection and disposal facilities, and internal and external environmental compliance assessments. Costs associated with medical surveillance and other employee health and safety requirements are not included.

WORK CATEGORY CODE: 60370
WORK CATEGORY DESCRIPTION: Reserved.

WORK CATEGORY CODE: 60380

WORK CATEGORY DESCRIPTION: Reserved.

WORK CATEGORY CODE: 60391 – Facility Security Assessments for Hydropower.

WORK CATEGORY DESCRIPTION: Facility Security – Assessments, reviews, studies and analyses for hydropower features.

Includes all costs to conduct and prepare security risk assessments, reviews, evaluations, studies and analyses for facility security related to criminal and terrorist activities. Includes costs to evaluate threats, consequences and security system effectiveness for hydropower features. Also includes costs to prepare or revise Emergency Action Plans and plans to address facility protection and security, training and appropriate coordination with other agencies as they relate to criminal and terrorist activities. Costs for guards and surveillance activities are included in Work Category Code 60392, and costs to acquire, install and maintain structural and physical improvements for security are included in Work Category Code 61390.

WORK CATEGORY CODE: 60392 – Facility Security Guards, Monitoring Activities for Hydropower.

WORK CATEGORY DESCRIPTION: Facility Security – Guards and Monitoring Activities for hydropower features.

Includes all costs for guards and security system monitoring activities including training of personnel for facility security related to criminal and terrorist activities. Costs for assessments are included in Work Category Code 60391, and costs to acquire, install and maintain structural and physical improvements for security are included in Work Category Code 61390.

WORK CATEGORY CODE: 60411 - Management of Natural Resources for Environmental Stewardship.

WORK CATEGORY DESCRIPTION: Management of Natural Resources and Operational Management Plans.

Includes all costs for the management and operations; of natural resources to foster healthy and sustainable lands and waters, including the conservation and protection of soil, water, wetland, forest, vegetation, waterfowl, fish and wildlife, grasslands and range, and other resources essential to the total management of specific projects; salaries, equipment, supplies; managing areas under license or outlease, spawning beds, fish shelters, fish and waterfowl impoundments; forest/woodland management activities, timber salvage (NOTE: Do not include commodity (e.g. timber, crops, sand) sales cost or other natural resources management activity costs that are expected to be funded by the proceeds from the sale of project commodities), timber trespass surveillance, timber cruising, stand improvement, development and maintenance of fire lines, forest fire suppression, prescribed burning and haul road maintenance; conducting vegetation plantings, fertilization, maintain riparian vegetation, establishing wildlife food plots, manipulating vegetation; conducting wildlife habitat preservation management or improvement activities; range management; erosion control; conducting citation authority programs outside developed recreation areas that involve the protection of natural resources; conducting interpretive programs for the stewardship of natural resources; and boundary surveillance and routine, recurring maintenance of boundary monumentation required for protection of managed stewardship lands or environmentally sensitive areas. This Work Category excludes costs associated with fish hatcheries and fish passage. Natural resources activities conducted for the enhancement of recreation areas, e.g. management or control of nuisance wildlife including geese, nutria, woodchucks, and swallows in recreation areas, will be charged to Work Category Code 60511; of Operational Management Plans, including all costs for salaries, supplies and materials, and equipment related to the preparation and updating of Operational Management Plans and

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supplements. Charges may include field units that perform data collection and analysis.

WORK CATEGORY CODE: 60412 - Management and Curation of Archeological and Cultural Resources.

WORK CATEGORY DESCRIPTION: Management and Curation of Archeological and Cultural Resources.

Includes all costs for the management of, and annual maintenance curation costs for, archeological and cultural resources including identification, surveillance, studies, literature searches, reconnaissance surveys, inventory, subsurface testing, development and update of management plans and agreements for historical, archaeological and cultural resources, archeological and cultural resources outreach and educational programs, coordination with Tribal interests, operations activities associated with identified historical, archaeological and cultural resources, and enforcement of Title 36 Code of Federal Regulations, the National Historic Preservation Act of 1966, the Archeological Resources Protection Act of 1979 and other applicable laws and regulations. (Do not include funding requirements for activities to ensure compliance with Section 5-7 of the Native American Graves Protection and Repatriation Act (NAGPRA). These costs will be budgeted as a Remaining Items Activity. See para. III-2.13 of this Annex.). Costs for Orphan Collections are included in Work Category Code 60260.

WORK CATEGORY CODE: 60413 - Management of Natural Resources Mitigation Features.

WORK CATEGORY DESCRIPTION: Management of Natural Resources Mitigation Features.

Includes all costs for the management and operations of authorized mitigation activities including costs to comply with mitigation requirements specified in Federal law, Congressional legislation, or in HQ approved project authorization decision document, to offset unavoidable natural resources and ecological losses caused by the construction of the project or by project operation activities. This Work Category does not include acquisition costs.

WORK CATEGORY CODE: 60414 - Fisheries Management - Operation of Fish Hatcheries.

WORK CATEGORY DESCRIPTION: Fisheries Management – Operation of Fish Hatcheries.

Includes all costs for salaries, equipment, supplies and all costs associated with the operation, of fish hatcheries, egg collecting stations and related facilities for provision of fish propagation. It excludes fisheries development activities included in Work Category Code 60411.

WORK CATEGORY CODE: 60415 - Fisheries Management - Fish Hauling Activities and Fish Passage Structures.

WORK CATEGORY DESCRIPTION: Fisheries Management - Fish Hauling Activities and Fish Passage Structures.

Includes all costs associated with operation of facilities and equipment for collecting, trapping, transportation and passage of fish at dams and navigation facilities. Facilities include ladders, nets, elevators and locks. It excludes fisheries development activities included in Work Category Code 60411.

WORK CATEGORY CODE: 60416 - Comprehensive Master Plans.

WORK CATEGORY DESCRIPTION: Preparation and Updating of Comprehensive Master Plans and Master Plan Supplementals.

Includes all costs to initiate new, or continue ongoing, comprehensive Master Plans, including all costs for salaries, supplies and materials, and equipment related to the preparation and updating of Master Plans and Master Plan Supplements. Charges may include field units that perform data collection and analysis.

WORK CATEGORY CODE: 60417 – Shoreline Management.

WORK CATEGORY DESCRIPTION: Shoreline Management.

Includes all costs associated with managing permits issued under authority of Title 36 CFR, the Shoreline management Program. Includes costs for salaries, contracts, supplies, materials and equipment.

WORK CATEGORY CODE: 60418 – Management of Special Status Species for Environmental Stewardship Function.

WORK CATEGORY DESCRIPTION: Management of Special Status Species for Environmental Stewardship.

Includes all environmental stewardship program function costs for management and operations to support special status species. Includes costs for salaries, contracts, supplies, materials, and equipment to manage the conservation and recovery of special status species such as Federally or state listed endangered, threatened, rare or sensitive species, including activities in areas under license, lease or outgrant. Includes activities to determine and document the state or condition of a resource or population (e.g. surveys, inventories); activities to increase understanding and appreciation of special status species such as interpretive programs, signs, surveillance activities, GPS/GIS mapping, marking populations boundaries and exclusion zones. Also includes costs to prepare or update Management Plans for Special Status Species, such as data collection and analysis, plan development, review and coordination.

WORK CATEGORY CODE: 60419 – Pest Management for Environmental Stewardship.

WORK CATEGORY DESCRIPTION: Pest Management.

Includes all costs for management and operations to support integrated pest management activities for the health and sustainability of natural resources. Includes costs of salaries, contracts, supplies, materials, and equipment to control pests, control invasive exotic species, control noxious weeds and animals. Includes activities undertaken to determine the state or condition of a resource, or to determine population densities to assess the likelihood of resources damage by pests, and activities to increase understanding and appreciation of pest management activities.

WORK CATEGORY CODE: 60421 – Studies, Surveys and Inventories for the Environmental Stewardship Function.

WORK CATEGORY DESCRIPTION: Natural Resources Studies, Surveys and Inventories for environmental stewardship features, including Fisheries and Wildlife Development Activities. Includes all costs of fish and wildlife studies, including fish hauling and passage analyses to support long-range development and modification of existing structures, applicable to a specific project and pro rata share of basin-wide fish and wildlife studies; inventorying the natural resources base through Level One and Level Two Natural Resources Inventories; includes all costs to conduct surveys of fish and wildlife; and all costs to perform population dynamics and other studies.

WORK CATEGORY CODE: 60422 – Studies, Surveys and Inspections of Completed Works – Ecosystem Restoration.

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WORK CATEGORY DESCRIPTION: Studies, Surveys and Inspections of Ecosystem Restoration Features at Completed Projects Operated by Others.

Includes all costs related to the inspection of Federally constructed, locally operated and maintained projects to ensure compliance with Project Cooperative Agreements. Includes inspection of ecosystem restoration features, observations regarding compliance with any access or easement restrictions, and minimal documentation of the condition of the ecosystem. Includes all costs for technical review and approval of sponsor-proposed alterations, improvements, excavation or construction within the project boundaries; advice given to sponsors related to the effects of such activities on the function/operation of the project and information on acceptable construction methods; all costs to update O&M Manuals; initial funding of reconnaissance or evaluation reports; PED for deficiency correction and reconstruction as applicable until Construction (C) funds are allocated.

WORK CATEGORY CODE: 60430

WORK CATEGORY DESCRIPTION: Reserved.

WORK CATEGORY CODE: 60441 - Water Management (Control and Quality) Activities for Environmental Stewardship - Analysis and Studies.

WORK CATEGORY DESCRIPTION: Water Management (Control and Quality) Activities - Analysis, Studies and Regulation Instructions for environmental stewardship features.

Includes all water management activity costs related to the conservation, protection, or enhancement of environmental stewardship features, e.g. natural aquatic communities, wetlands, including associated costs for personnel and space to manage the hydrologic, hydraulic and meteorological data required for water control and quality activities in accordance with the current water control/quality plan. Also includes all costs for water management studies to improve efficiency or mitigate constraints on approved plans of regulation, annual updating of notification lists, and funds transferred to other agencies and any similar items needed to accomplish this activity. This includes development of the water quality component of water control manuals and daily decisions on multi-level releases and pro-rata share of office and computer facilities and other related costs associated with water management. Included also are costs to calibrate and make operational the forecasting and decision support models within the new Corps Water Management System (CWMS). Costs for data collection are included in Work Category Code 60442.

WORK CATEGORY CODE: 60442 - Water Management (Control and Quality) Activities for Environmental Stewardship - Operation of Water Control Data Systems.

WORK CATEGORY DESCRIPTION: Water Management (Control and Quality) Activities - Operation of Water Control Data Systems including Data Collection for environmental stewardship features.

Includes all costs for the operation of equipment, personnel and space to collect and process the hydrologic, hydraulic and meteorological data required for water control and quality activities in accordance with the current plan, data collection, and pro-rata share of office and computer facilities and other related costs associated with operations of water management data systems including the new Corps Water Management System (CWMS). Includes all costs to coordinate with other agencies and entities, training, travel, funds transferred to other agencies and other associated costs required for operation of water management data systems. Costs for purchase and maintenance of new water control data systems equipment are included in Work Category Code 61440.

WORK CATEGORY CODE: 60450 - Real Estate Management for the Environmental Stewardship Function.

WORK CATEGORY DESCRIPTION: Real Estate Management including Compliance, and Utilization Inspections for environmental stewardship features.

Includes all costs, including contractual services, incident to granting to others the use of and performing inspections of property for environmental stewardship program purposes such as fish and wildlife habitat management, disposal of timber (NOTE: Do not include commodity (e.g. timber, crops, sand) sales costs that are expected to be funded by the proceeds from the sale of project commodities) and selected agricultural and grazing uses and reconveyance clauses (restrictions) in deeds. Includes report preparation, determination of compliance after vacation of property subsequent to expiration or revocation of grant, and corrective measures where non-compliance is noted. Also includes appraisals, surveys, mapping, negotiations, preparation and execution of outgrants, renewal, extension, cancellation/ termination documents, responses to request for use of real or related personal property, as they relate to natural resources utilization or lands managed for natural resources. The general granting of land use to others and performing inspections of property granted and reserved to others for purposes such as road, street, waterline, powerline, and communication rights-of-way, as well as requests to drill for oil or gas on Government owned property where no oil or gas lease is required, and other uses covered by easements, licenses, and permits not supporting the environmental stewardship mission shall, in most instances, be charged to the grantee as administrative costs, including NEPA documentation costs. In cases where it is in the public interest for the Corps to absorb the costs, those costs should be charged to the primary mission of the project such as flood risk management or navigation. Also includes the preparation of Report of Availability (ROAs); Environmental Baseline Surveys (EBSs); Finding of Suitability to Lease (FOSLs) or Finding of Suitability to Transfer (FOSTs) for real estate transactions when such action primarily concerns the stewardship of natural resources and fish and wildlife activities.

WORK CATEGORY CODE: 60460 - Environmental Compliance Management for the Environmental Stewardship Function.

WORK CATEGORY DESCRIPTION: Environmental Compliance Management for environmental stewardship features.

Includes all Environment Stewardship operational costs to comply with applicable Federal laws and regulations as they relate to the management of natural resources, including the National Environmental Policy Act (NEPA) Safe Drinking Water Act, Resource Conservation and Recovery Act (RCRA), Clean Air Act, Hazardous Materials Transportation Act, Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), EO 13148, and applicable state and local regulations. [Environment Stewardship program costs to comply with requirements of the Endangered Species Act (ESA) should be charged to WCC 60418.] Includes cost to complete portions of annual external or internal environmental compliance assessment that are related to natural features or lands managed for fish and wildlife in accordance with Federal, DOD and Corps of Engineers requirements as described in the ERGO/TEAM environmental assessment manuals. Environmental compliance and inspections associated with Recreation such as concession inspections, visitor center inspections, maintenance shops that service recreation areas, marina inspections shall be charged to 60560. Cost associated with compliance and inspections for facilities associated with dam operations, levee works, pump station or maintenance areas that serve these functions shall be charged to 60560. Costs associated with medical surveillance and other employee health and safety requirements are not included.

WORK CATEGORY CODE: 60470

WORK CATEGORY DESCRIPTION: Reserved.

WORK CATEGORY CODE: 60480

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WORK CATEGORY DESCRIPTION: Reserved.

WORK CATEGORY CODE: 60491 – Facility Security Assessments for Environmental Stewardship.

WORK CATEGORY DESCRIPTION: Facility Security – Assessments, reviews, studies and analyses for environmental stewardship features.

Includes all costs to conduct and prepare security risk assessments, reviews, evaluations, studies and analyses for facility security related to criminal and terrorist activities. Includes costs to evaluate threats, consequences and security system effectiveness for environmental stewardship features. Also includes costs to prepare or revise Emergency Action Plans and plans to address facility protection and security, training and appropriate coordination with other agencies as they relate to criminal and terrorist activities. Costs for guards and surveillance activities are included in Work Category Code 60492, and costs to acquire, install and maintain structural and physical improvements for security are included in Work Category Code 61490.

WORK CATEGORY CODE: 60492 – Facility Security Guards, Monitoring Activities for Environmental Stewardship.

WORK CATEGORY DESCRIPTION: Facility Security – Guards and Monitoring Activities for environmental stewardship features.

Includes all costs for guards and security system monitoring activities including training of personnel for facility security related to criminal and terrorist activities. Costs for assessments are included in Work Category Code 60491, and costs to acquire, install and maintain structural and physical improvements for security are included in Work Category Code 61490.

WORK CATEGORY CODE: 60511 - Operations for the Recreation Function.

WORK CATEGORY DESCRIPTION: Operations and Management of Recreation Areas and Facilities, Service Facilities (Buildings, Grounds, Utilities, and Roads, Railroads and Bridges), Permanent Operating Equipment, etc. for recreation features.

Includes all costs for the management and operation; necessary materials, supplies, equipment, transportation and rental costs associated with operations; associated hired labor and contract support; routine materials and supplies; and other costs:

- of recreation areas and facilities including all costs for salaries, per diem, travel, signs collecting and administering user fees, brochures, maps, participation in public and special events and exhibitions, costs of trash removal, cleanup, mowing, and gate or park attendants. Also includes operations costs for buildings, grounds, landscaping, removal of hazardous trees, control of vegetation, roads, bridges, parking areas, grills, tables, trails, playgrounds and permanent operating equipment utilized for recreation purposes;
- to perform reservoir inspections and patrols for recreation purposes;
- of project-owned permanent facilities for recreation purposes;
- of all tools and permanent operating equipment including direct costs of automotive and other equipment assigned to the recreation function. Vehicle accounts will be maintained by group classifications as provided for Revolving Fund vehicles.
- Costs previously included in 60512, Operations and Management for the Recreation Function using

Special Recreation Users Fee (SRUF) Funds, should be included here.

- Costs previously included here for Visitor Centers operations and management should now be included in Work Category Code 60514.

WORK CATEGORY CODE: 60513 - Operations for the Recreation Function - Law Enforcement Agreements.

WORK CATEGORY DESCRIPTION: Operations for recreation features - Costs and Supervision of Law Enforcement Agreements.

Includes all costs for cooperative agreements for law enforcement with states and their political subdivisions under PL 94-587, and all costs for technical and administrative charges, including project and district costs for administration of law enforcement agreements and activities.

WORK CATEGORY CODE: 60514 – Operation/management of Visitor Centers.

WORK CATEGORY DESCRIPTION: Operations and Management of Visitors Centers.

Includes all costs for the management and operation; necessary materials, supplies, equipment, transportation and rental costs associated with operations; associated hired labor and contract support; routine materials and supplies; and other costs of visitor centers. Includes all costs associated with visitor center operations, such as all personnel costs, custodial duties, supporting costs of cooperating associations, snow, ice and debris removal, lawn and shrubbery maintenance, landscaping, utilities, exhibits, grounds, heating and cooling systems, audio visual programs, building material, and equipment costs. These costs were formerly included in WCC 60511.

WORK CATEGORY CODE: 60520 - Studies and Surveys for the Recreation Function.

WORK CATEGORY DESCRIPTION: Studies and Surveys for recreation features.

Includes all costs to prepare visitor surveys, reports or studies related to the operation, maintenance and rehabilitation of recreation facilities.

WORK CATEGORY CODE: 60530

WORK CATEGORY DESCRIPTION: Reserved.

WORK CATEGORY CODE: 60541 - Water Management (Control and Quality) Activities for Recreation - Analysis and Studies.

WORK CATEGORY DESCRIPTION: Water Management (Control and Quality) Activities - Analysis, Studies and Regulation Instructions for recreation features.

Includes all costs for personnel and space to manage the hydrologic, hydraulic and meteorological data required for water control and quality activities in accordance with the current water control/quality plan; all costs to prepare routine regulation instructions and runoff forecasts, coordinate with other agencies and entities, prepare water control manuals, disseminate water control information, training, travel and other associated costs required to make sound water control management decisions; all costs for reservoir and river analyses to improve the quality of water within and downstream from the reservoirs; and all costs related to studies of the means to mitigate water quality problems and studies to determine present and future water quality needs. Also includes all costs for water management studies to improve efficiency or

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mitigate constraints on approved plans of regulation, annual updating of notification lists, and funds transferred to other agencies and any similar items needed to accomplish this activity. This includes development of the water quality component of water control manuals and daily decisions on multi-level releases and pro-rata share of office and computer facilities and other related costs associated with water management. Included also are costs to calibrate and make operational the forecasting and decision support models within the new Corps Water Management System (CWMS). Costs for data collection are included in Work Category Code 60542.

WORK CATEGORY CODE: 60542 - Water Management (Control and Quality) Activities for Recreation - Operation of Water Control Data Systems.

WORK CATEGORY DESCRIPTION: Water Management (Control and Quality) Activities - Operation of Water Control Data Systems including Data Collection for recreation features.

Includes all costs for the operation of equipment, personnel and space to collect and process the hydrologic, hydraulic and meteorological data required for water control and quality activities in accordance with the current plan, data collection, and pro-rata share of office and computer facilities and other related costs associated with operations of water management data systems including the new Corps Water Management System (CWMS). Includes all costs to coordinate with other agencies and entities, training, travel, funds transferred to other agencies and other associated costs required for operation of water management data systems. Costs for purchase and maintenance of new water control data systems equipment are included in Work Category Code 61540.

WORK CATEGORY CODE: 60550 - Real Estate Management for the Recreation Function.

WORK CATEGORY DESCRIPTION: Real Estate Management including Compliance, and Utilization Inspections for recreation features.

Includes all costs, including contractual services, incident to granting to others the use of and performing inspections of property used for recreational purposes such as commercial concessions, public park and recreation, quasi-public and group camps. Also includes granting use of and performing inspections of property granted and reserved to others for purposes such as road, street, waterline, power line, and communication rights-of-way and other uses covered by easement, licenses, and permits that impact the recreational features of a project. Includes report preparation, determination of compliance after vacation of property subsequent to expiration or revocation of grant, and corrective measures where non-compliance is noted. Also includes appraisals, surveys, mapping, negotiations, preparation and execution of outgrant's, renewal, extension, cancellation/termination documents, responses to request for use of real or related personal property, Executive Order surveys and public land withdrawals (applies to the 11 western states) on lands that support the recreational features of a project. Includes costs of utilization inspections of real property used for recreation under the control of or subject to a service agreement with the Corps of the Government and real property accountability, including real property inventory updates and preparation of annual civil-owned property reports (GSA 1166) for lands that support the recreation program of a project.

WORK CATEGORY CODE: 60550 - Real Estate Management for the Recreation Function.

WORK CATEGORY DESCRIPTION: Real Estate Management including Compliance, and Utilization Inspections for recreation features.

Includes all costs, including contractual services, incident to granting to others the use of and performing inspections of property for purposes such as commercial concessions, industrial uses, public park and recreation, quasi-public and group camp use, fish and wildlife habitat management, selected agricultural and grazing uses and reconveyance clauses (restrictions) in deeds. Also includes granting use of and

performing inspections of property granted and reserved to others for purposes such as road, street, waterline, powerline, and communication rights-of-way, as well as requests to drill for oil or gas on Government owned property where no oil or gas lease is required, and other uses covered by easements, licenses, and permits. Includes report preparation, determination of compliance after vacation of property subsequent to expiration or revocation of grant, and corrective measures where non-compliance is noted. Also includes appraisals, surveys, mapping, negotiations, preparation and execution of outgrants, renewal, extension, cancellation/termination documents, responses to request for use of real or related personal property, Executive Order surveys and public land withdrawals (applies to the 11 western states). Includes costs of utilization inspections of real property under the control of or subject to a service agreement with the Corps or the Government and real property accountability, including real property inventory updates and preparation of annual civil-owned property reports (GSA 1166).

WORK CATEGORY CODE: 60560 - Environmental Compliance Management for the Recreation Function.

WORK CATEGORY DESCRIPTION: Environmental Compliance Management for recreation features.

WORK CATEGORY DESCRIPTION: Environmental Compliance Management for Recreation features. Includes all Recreational operational costs to comply with applicable Federal laws and regulations, including the Safe Drinking Water Act, Resource Conservation and Recovery Act (RCRA), Clean Air Act, Hazardous Materials Transportation Act, Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), EO 13148, and applicable state and local regulations for recreation facilities and visitor centers. Includes cost to complete annual environmental compliance assessment, external and internal as inspections and findings related to recreational activities and in accordance with Federal, DOD and Corps of Engineers requirements are described in the ERGO/TEAM environmental assessment manuals. Includes all costs associated with management and oversight of environmental compliance for recreation operations activities such as maintenance shops that support recreation, inspection of outgrants and concessions such as marinas, personnel training and management plans in spill prevention, hazard communication, pollution prevention, hazardous material, water resources, storage and handling of oil and pesticide management that support recreational activities. Includes costs associated with implementing and maintaining an Environmental Management System (EMS) for the recreational activities and support facilities (may be cost shared with other functions). Costs include salaries, training, materials, supplies, regulatory fees, drinking water and waste analysis, inspection of waste collection and disposal facilities, and internal and external environmental compliance assessments. Costs associated with medical surveillance and other employee health and safety requirements are not included.

WORK CATEGORY CODE: 60570

WORK CATEGORY DESCRIPTION: Reserved.

WORK CATEGORY CODE: 60580

WORK CATEGORY DESCRIPTION: Reserved.

WORK CATEGORY CODE: 60591 – Facility Security Assessments for Recreation.

WORK CATEGORY DESCRIPTION: Facility Security – Assessments, reviews, studies and analyses for recreation features.

Includes all costs to conduct and prepare security risk assessments, reviews, evaluations, studies and analyses for facility security related to criminal and terrorist activities. Includes costs to evaluate threats, consequences and security system effectiveness for recreation features. Also includes costs to prepare or

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revise Emergency Action Plans and plans to address facility protection and security, training and appropriate coordination with other agencies as they relate to criminal and terrorist activities. Costs for guards and surveillance activities are included in Work Category Code 60592, and costs to acquire, install and maintain structural and physical improvements for security are included in Work Category Code 61590.

WORK CATEGORY CODE: 60592 – Facility Security Guards, Monitoring Activities for Recreation.

WORK CATEGORY DESCRIPTION: Facility Security – Guards and Monitoring Activities for recreation features.

Includes all costs for guards and security system monitoring activities including training of personnel for facility security related to criminal and terrorist activities. Costs for assessments are included in Work Category Code 60591, and costs to acquire, install and maintain structural and physical improvements for security are included in Work Category Code 61590.

WORK CATEGORY CODE: 60610 - Joint Activities for Operations, FERC #535, #537, #538 and #539.

WORK CATEGORY DESCRIPTION: Joint costs for Operations activities NOT specific to Navigation, Flood Risk Management, Hydropower, Environmental Stewardship, Recreation and Water Supply. These activities may include the operation of Dams, Reservoirs, Levees, Other Non-Dam Multi-purpose Structures, Pumping Plants, Service Facilities (Buildings, Grounds, Utilities, and Roads, Railroads and Bridges), gates, conduits, Permanent Operating Equipment, etc.

Includes all joint costs for the operation routine materials, supplies, equipment and transportation costs; hired labor and contract support associated with operations; and other costs:

- of dam structures and appurtenant equipment such as spillway gates, intake and outlet works, and sluiceways for reservoir regulation; removing and disposing of ice, snow, trash, and debris on or in the vicinity of the dam or dam structures; cleanup of dam structures and facilities; routine testing and adjustment of gauges, meters, instruments, and relays in dam structures; disposal and control of weeds, brush, trees, and aquatic growth in the vicinity of dam structures; and grass cutting on earth-fill dams. Includes costs for dam safety/failure training of project personnel, preparation of flood emergency plans, dam contingency plans, dam surveillance plans, and provision for technical assistance to local interests concerning dam failure. When this account includes municipal or industrial water delivery activities, a separate sub-element should be established in CEFMS to record appropriate costs for each such facility for cost allocation purposes;
- to perform reservoir inspections and patrols, removal and control of trash and debris (excluding major periodic or one-time removal of growth and debris from the reservoir which should be included in maintenance accounts); minor bank erosion control; minor cleaning of reservoir area for weeds, brush, trees, and aquatic growth; boundary surveillance and routine, recurring maintenance of boundary monumentation at projects without natural resource activities, insect control and elimination of health and safety hazards;
- of levees and other non-dam multi-purpose structures; vegetation control, removal of snow and ice from multi-purpose structures;
- of pumping plants, pumps and associated equipment; collecting and maintaining operational records; routine replacement, purification and testing of insulating, lubricating and hydraulic oils; lubricants and lubricating equipment; minor maintenance of electrical equipment, cleaning, testing, and adjustment of motor starters, relays, meters, and similar equipment; minor maintenance of pumps, motors, engines, trash raking equipment, gate hoists, gates, fire fighting, and other equipment required for operation; minor

maintenance of buildings, roads, and grounds; removal of debris, ice, and snow;

- of project-owned permanent facilities such as administration and shop buildings, storage and garage buildings and areas, community buildings, local streets and sidewalks, landscaping, utility facilities such as electric, gas, water, and sewage, all security and protective measures, and permanent roads, including the road across the top of the dam, and parking areas near the dam, railroads, and bridges required for access and other purposes in connection with the operation of a project. It also includes bridges provided as a project feature for the passage of highway and railway traffic over improved channels. Direct costs included are snow and ice removal from project roads, parking areas and walkways; sanding and salting project roads, parking areas and walkways; minor patching, signs, ditch cleaning, culvert cleaning and similar duties; bridge operation; cleanup of project roads, railroads, and bridges. Where space in other basic structures, such as a dam or powerhouse, is used in lieu of any above mentioned facilities, such allocated space is not separated from the basic structure. Buildings which house operating machinery and serve other purposes as well are included in this activity, but the costs to operate the machinery is charged to the appropriate Work Categories. Buildings which house specific operating machinery, spare parts, equipment, etc., will be charged to the appropriate Work Categories of all tools and equipment, including laboratory, shop, warehousing, communications, surveys, and transportation equipment, office furniture and equipment. Project owned sedimentation and degradation measuring facilities, rainfall and stream-gauging devices, fixed sand bypassing systems, and like equipment are also included. Includes direct costs of automotive and other equipment not assigned to specific features. Vehicle accounts will be maintained by group classifications as provided for Revolving Fund vehicles. Operating costs of permanent equipment assigned to specific functions will be charged to those functions.

WORK CATEGORY CODE: 60621 - Joint Activities for Studies and Surveys, FERC #535, #537, #538 and #539.

WORK CATEGORY DESCRIPTION: Joint costs for Studies and Surveys including project condition surveys, dredging studies, etc. NOT specific to Navigation, Flood Risk Management, Hydropower, Environmental Stewardship, Recreation and Water Supply.

Includes all joint costs to perform studies or surveys for multi-purpose projects including sedimentation conditions and dredging studies.

WORK CATEGORY CODE: 60622 - Joint Activities for Studies and Surveys - Major Rehabilitation Evaluation Reports, FERC #537.

WORK CATEGORY DESCRIPTION: Joint costs for Studies and Surveys - Major Rehabilitation Evaluation Reports NOT specific to Navigation, Flood Risk Management, Hydropower, Environmental Stewardship, Recreation and Water Supply.

Includes all joint costs for major rehabilitation evaluation reports. Operation and Maintenance (O&M) funds are to be used only until Construction (C) funds are allocated to the project.

WORK CATEGORY CODE: 60631 - Joint Activities for Instrumentation, Data Collection and Analysis for Dam Safety, FERC #537.

WORK CATEGORY DESCRIPTION: Joint costs of Instrumentation for Engineering Analysis and Continuing Evaluation Data Gathering Inspections, and Data Analysis for Dam Safety NOT specific to Navigation, Flood Risk Management, Hydropower, Environmental Stewardship, Recreation and Water Supply.

Includes all joint costs for the operation of instruments in existing dam structures for safety evaluation and

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all costs of obtaining, analyzing and reporting instrumentation data for purposes consistent with an approved plan. This includes instrumentation for measuring horizontal and vertical movement, stresses and strains, pore pressure, phreatic surfaces, seismic effects, and seepage clarity and quality.

WORK CATEGORY CODE: 60632 - Joint Activities for Formal Periodic Inspections and Reports for Dam Safety, FERC #537.

WORK CATEGORY DESCRIPTION: Joint costs for Formal Periodic Inspections and Reports for Dam Safety NOT specific to Navigation, Flood Risk Management, Hydropower, Environmental Stewardship, Recreation and Water Supply.

Includes all joint costs related to the scheduled periodic inspections and reporting of projects and bridges needed to meet inspection frequency requirements of ER 1110-2-100 as follows:

- a. Dams, locks and dams, initial and second inspections if funded under O&M General, and high hazard structures.
- b. Public Bridges.
- c. Structures whose failure would be a major loss to the national infrastructure or cause severe economic distress.
- d. Other projects where known conditions warrant inspections at a frequency more often than normal.

WORK CATEGORY CODE: 60633 - Joint Activities for Dam Safety Assurance Studies, FERC #537.

WORK CATEGORY DESCRIPTION: Joint costs for Dam Safety Assurance Studies NOT specific to Navigation, Flood Risk Management, Hydropower, Environmental Stewardship, Recreation and Water Supply.

Includes all joint costs of reconnaissance studies and special engineering investigations for known or suspected dam safety deficiencies, e.g. seismic evaluations, seepage studies, erosion studies, etc..

WORK CATEGORY CODE: 60641 - Joint Activities for Water Management (Control and Quality) – Analysis and Studies, FERC #537.

WORK CATEGORY DESCRIPTION: Joint costs for Water Management (Control and Quality) Activities - Analysis, Studies and Regulation Instructions NOT specific to Navigation, Flood Risk Management, Hydropower, Environmental Stewardship, Recreation and Water Supply.

Includes all joint costs for personnel and space to manage the hydrologic, hydraulic and meteorological data required for water control and quality activities in accordance with the current water control/quality plan; costs to prepare routine regulation instructions and runoff forecasts, coordinate with other agencies and entities, prepare water control manuals, disseminate water control information, training, travel and other associated costs required to make sound water control management decisions; costs for reservoir and river analyses to improve the quality of water within and downstream from the reservoirs; and costs related to studies of the means to mitigate water quality problems and studies to determine present and future water quality needs. Also includes costs for water management studies to improve efficiency or mitigate constraints on approved plans of regulation, annual updating of notification lists, and funds transferred to other agencies and any similar items needed to accomplish this activity. This includes development of the water quality component of water control manuals and daily decisions on multi-level releases and pro-rata

share of office and computer facilities and other related costs associated with water management . Included also are costs to calibrate and make operational the forecasting and decision support models within the new Corps Water Management System (CWMS). Joint costs for data collection are included in Work Category Code 60642.

WORK CATEGORY CODE: 60642 - Joint Activities for Water Management (Control and Quality) Operation of Water Control Data Systems, FERC #537.

WORK CATEGORY DESCRIPTION: Joint costs for Water Management (Control and Quality) Activities - Operation of Water Control Data Systems NOT specific to Navigation, Flood Risk Management, Hydropower, Environmental Stewardship, Recreation and Water Supply.

Includes all joint costs for the operation of equipment, personnel and space to collect and process the hydrologic, hydraulic and meteorological data required for water control and quality activities in accordance with the current plan, data collection, and pro-rata share of office and computer facilities and other related costs associated with operations of water management data systems including the new Corps Water Management System (CWMS). Includes costs to coordinate with other agencies and entities, training, travel, funds transferred to other agencies and other associated costs required for operation of water management data systems. Costs for purchase and maintenance of new water control data systems equipment are included in Work Category Code 61640.

WORK CATEGORY CODE: 60650 - Joint Activities for Real Estate Management, FERC #539.

WORK CATEGORY DESCRIPTION: Joint costs for Real Estate Management including Compliance, and Utilization Inspections NOT specific to Navigation, Flood Risk Management, Hydropower, Environmental Stewardship, Recreation and Water Supply.

Includes all joint costs, including contractual services, incident to granting to others the use of and performing inspections of property for purposes such as commercial concessions, industrial uses, public park and recreation, quasi-public and group camp use, fish and wildlife habitat management, selected agricultural and grazing uses and reconveyance clauses (restrictions) in deeds. Also includes granting use of and performing inspections of property granted and reserved to others for purposes such as road, street, waterline, powerline, and communication rights-of-way, as well as requests to drill for oil or gas on Government owned property where no oil or gas lease is required, and other uses covered by easements, licenses, and permits. Includes report preparation, determination of compliance after vacation of property subsequent to expiration or revocation of grant, and corrective measures where non-compliance is noted. Also includes appraisals, surveys, mapping, negotiations, preparation and execution of outgrants, renewal, extension, cancellation/termination documents, responses to request for use of real or related personal property, Executive Order surveys and public land withdrawals (applies to the 11 western states). Includes costs of utilization inspections of real property under the control of or subject to a service agreement with the Corps or the Government. Includes reconciliation of financial records with flood risk management land and mineral lease receipts, and real property accountability, including real property inventory updates and preparation of annual civil-owned property reports (GSA 1166).

WORK CATEGORY CODE: 60660 - Joint Activities for Environmental Compliance Management, FERC #539.

WORK CATEGORY DESCRIPTION: Joint costs for Environmental Compliance Management activities NOT specific to Navigation, Flood risk management, Hydropower, Environmental Stewardship, Recreation and Water Supply.

Includes all joint operational costs to comply with applicable Federal laws and regulations, including the

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Safe Drinking Water Act, Resource Conservation and Recovery Act (RCRA), Clean Air Act, Hazardous Materials Transportation Act, Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), EO 13148, and applicable state and local regulations. Includes cost to complete annual environmental compliance assessment, external or internal. Federal, DOD and Corps of Engineers requirements are described in the ERGO/TEAM environmental assessment manuals. Includes all costs associated with management and oversight of environmental compliance for operations activities. Includes costs associated with implementing and maintaining an Environmental Management System (EMS). Costs include salaries, training, materials, supplies, regulatory fees, drinking water and waste analysis, inspection of waste collection and disposal facilities, and internal and external environmental compliance assessments. Costs associated with medical surveillance and other employee health and safety requirements are not included.

WORK CATEGORY CODE: 60670

WORK CATEGORY DESCRIPTION: Reserved.

WORK CATEGORY CODE: 60680

WORK CATEGORY DESCRIPTION: Reserved.

WORK CATEGORY CODE: 60691 – Joint Activities for Facility Security Assessments.

WORK CATEGORY DESCRIPTION: Joint Costs for Facility Security – Assessments, reviews, studies and analyses NOT specific to Navigation, Flood Risk Management, Hydropower, Environmental Stewardship, Recreation and Water Supply.

Includes all joint costs to conduct and prepare security risk assessments, reviews, evaluations, studies and analyses for facility security related to criminal and terrorist activities. Includes costs to evaluate threats, consequences and security system effectiveness. Also includes costs to prepare or revise Emergency Action Plans and plans to address facility protection and security, training and appropriate coordination with other agencies as they relate to criminal and terrorist activities. Joint costs for guards and surveillance activities are included in Work Category Code 60692, and joint costs to acquire, install and maintain structural and physical improvements for security are included in Work Category Code 61690.

WORK CATEGORY CODE: 60692 – Joint Activities for Facility Security Guards, Monitoring Activities.

WORK CATEGORY DESCRIPTION: Joint Costs for Facility Security – Guards and Monitoring Activities NOT specific to Navigation, Flood Risk Management, Hydropower, Environmental Stewardship, Recreation and Water Supply.

Includes all joint costs for guards and security system monitoring activities including training of personnel for facility security related to criminal and terrorist activities. Joint costs for assessments are included in Work Category Code 60691, and joint costs to acquire, install and maintain structural and physical improvements for security are included in Work Category Code 61690.

WORK CATEGORY CODE: 60711 - National Emergency Preparedness Program (NEPP) – Continuity of Operations.

WORK CATEGORY DESCRIPTION: National Emergency Preparedness Program (NEPP) - Continuity of Operations activities.

Includes all costs required to develop, maintain and exercise Continuity of Operations Plans (COOP).

Includes personnel and contracting costs for development of plans and Standard Operating Procedures (SOPs), training, participation in exercises and program management associated with USACE relocation and reconstitution missions as a result of either a natural or manmade (caused) disaster or emergency.

WORK CATEGORY CODE: 60712 - National Emergency Preparedness Program (NEPP) - National Preparedness Planning.

WORK CATEGORY DESCRIPTION: National Emergency Preparedness Program (NEPP) - National Preparedness Planning activities.

Includes all costs associated with, or in support of, deliberate planning for assigned catastrophic disaster response plans which ensure that Corps MSCs and districts can support the Nation during national emergency events. Includes personnel and contracting costs for deliberate planning, development of Standard Operating Procedures (SOPs), training, exercises, program management and coordination with related Federal, State, and local entities. Also includes costs associated with preparedness planning for Port Readiness and Military Assistance to Civil Disturbances.

WORK CATEGORY CODE: 60713 - National Emergency Preparedness Program (NEPP) - Support of Emergency Operations Centers (EOCs).

WORK CATEGORY DESCRIPTION: National Emergency Preparedness Program (NEPP) - Support of Emergency Operations Centers (EOCs).

WORK CATEGORY CODE: 60714 - National Emergency Preparedness Program (NEPP) – Emergency Water Program.

WORK CATEGORY DESCRIPTION: National Emergency Preparedness Program (NEPP) - Emergency Water Program.

Includes all personnel and contracting costs for those activities required to execute E.O. 12656 related to the Emergency Water Program. (For HQUSACE use only).

WORK CATEGORY CODE: 60715 - National Emergency Preparedness Program (NEPP) – Continuity of Government.

WORK CATEGORY DESCRIPTION: National Emergency Preparedness Program (NEPP) - Continuity of Government.

Includes all personnel and contracting costs for those activities associated with Continuity of Government, including plans to support the Federal Emergency Management Agency (FEMA) and other Federal, State and local agencies in their efforts to reestablish civil authority lost as a result of natural or manmade (caused) disaster or an attack on the United States. (For HQUSACE use only as directed).

WORK CATEGORY CODE: 60716 - National Emergency Preparedness Program (NEPP) – Training and Exercises.

WORK CATEGORY DESCRIPTION: National Emergency Preparedness Program (NEPP) - Training and Exercises.

Includes all costs for the development of and the participation in catastrophic disaster training and exercises in the inter- and intra-agency arena.

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WORK CATEGORY CODE: 60717 – National Emergency Preparedness Program (NEPP) - National Emergency Response/Event.

WORK CATEGORY DESCRIPTION: National Emergency Preparedness Program (NEPP) - National Emergency Response/Event.

Includes activation and operation of EOCs and the deployment of response personnel and equipment for a national emergency event. These funds are not budgeted and will be issued by HQs as the situation warrants. Refer to ER 11-1-320 dated 1 November 2009.

WORK CATEGORY CODE: 60811 - Operations for Water Supply.

WORK CATEGORY DESCRIPTION: Operations of Project Gates, Specific Water Supply Conduits, Permanent Operating Equipment, etc. for water supply features.

Includes all costs for the operation; necessary materials, supplies, equipment and transportation costs associated with operations; associated hired labor and contract support; routine materials and supplies; and other costs: of project gates, specific water supply conduits and permanent operating equipment specifically for water supply. Prior to FY07, these costs have been included in WCC 60210.

WORK CATEGORY CODE: 60812 - Water Supply Agreements.

WORK CATEGORY DESCRIPTION: Development and Renegotiation of Water Supply Agreements.

Includes all labor and associated costs involved in the development of new water supply agreements and for costs required for existing water supply agreements such as billings and collections including delinquencies, lawsuits and modifications and renegotiations of such agreements. Prior to FY07, these costs have been included in WCC 60210.

WORK CATEGORY CODE: 60820 - Studies and Surveys for the Water Supply Function.

WORK CATEGORY DESCRIPTION: Studies and Surveys for water supply features.

Includes all costs to prepare new or continuing reports associated with the reallocation of an existing project purpose to water supply. Prior to FY07, these costs have been included in WCC 60221.

e. Work Category Codes and Definitions – O&M Maintenance Accounts. The Maintenance functions are broken down into Work Category Codes, together with a description of work to be performed. See TABLE III-4-5 below:

TABLE III-4-5

Work Category Codes and Definitions
Maintenance Accounts By Business Program:

- Navigation (611--)
- Flood Risk Management (612--)
- Hydropower (613--)
- Environmental Stewardship (614--)
- Recreation (615--)

Joint Activities (616--)
Reserved (617--)
Water Supply (618--)

A Breakdown of Work Category Codes (WCCs) and descriptions under these functions is on the following pages:

WORK CATEGORY CODE: 61110 - Maintenance for the Navigation Function.

WORK CATEGORY DESCRIPTION: Maintenance of Locks, Dams, Reservoirs, Dikes, Revetments, Breakwaters, Jetties, Seawalls, Piers, Levees and Similar Structures, Service Facilities, Permanent Operating Equipment, etc. excluding dredging activities for navigation features.

Includes all direct costs for the maintenance and repair, replacement, additions and efficiency improvements to, or retirement of; related costs for spare parts, replacements, additions, special tools, miscellaneous supplies and materials; government plant and hired labor for project maintenance and contract support, transportation costs and other costs required to perform this maintenance function; purchase of permanent operating equipment for non-Water Management activities:

- of lock and salt water control structures and facilities for passage of waterborne traffic, including gates, valve operating machinery, lock walls, and guide and guard-walls including dolphins within the lock approaches for tie up, guard, or guide purposes;
- of facilities and equipment for dams, spillways, outlet works and auxiliary dams;
- of reservoirs and facilities including floating trash booms, trash racks, erosion control, drainage, major periodic or one time removal of debris or aquatic growth to ensure proper functioning of the reservoir (minor and routine removal of growth and debris in the vicinity of dam structures and from reservoirs should be charged to Work Category Code 60110); rim grouting or mine sealing, etc., to prevent leakage;
- of revetments, dikes, groins, breakwaters, jetties, seawalls, piers, levees and similar structures provided in seas, lakes, rivers, canals, exposed tidal waters, and harbors;
- of non-dredging navigation channel maintenance including snagging, clearing, aquatic plant removal, removal of sunken vessels, drift removal, rock and other debris removal;
- of buildings, grounds, utilities, and roads, railroads and bridges, such as administration and shop buildings, storage and garage buildings and areas, other non-leased or rented project buildings, local streets and sidewalks, project access roads, including the road across dams, parking areas, bridges, railroads, and walkways. Also includes direct costs for project utilities including electrical, gas, water, and sewer systems;
- of permanent operating equipment;
- of buildings, grounds and utilities that are part of the hydraulic models in South Pacific Division;
- and for instrumentation on lock facilities and dam structures including all costs for the Installation and maintenance of instruments in existing structures for safety evaluation purposes consistent with an approved plan. This includes instrumentation for measuring horizontal and vertical movement, stresses and strains, pore pressure, phreatic surfaces, seismic effects, and seepage clarity and quality.

WORK CATEGORY CODE: 61121 - Dredging Activities for the Navigation Function.

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WORK CATEGORY DESCRIPTION: Dredging of Channels and Canals for navigation activities including all disposal activities. Disposal activities include, but are not limited to, confined, open water, beach, wetland creation, aquatic habitat creation, etc..

Includes all costs for maintenance dredging and disposal activities of navigation channels and canals, except project condition sediment survey costs which are included in Work Category Code 60121. Includes costs for before, during and after dredging surveys, required real estate activities, E&D, S&A, etc. Also included are costs to obtain environmental clearances to perform the associated dredging. Costs for long-range environmental requirements are included in Work Category Code 60123. This Work Category also includes all costs associated with the disposal of dredged materials in confined disposal facilities; open water; sand on beaches; creation or restoration of wetlands or other aquatic habitat using dredged material; creation of land using dredged material. Also includes related costs for spare parts, special tools, miscellaneous materials and supplies, transportation, disposal, and equipment.

NOTE: Line item submissions for Corps-owned hopper dredges should be separate from line item submissions for any other dredges.

WORK CATEGORY CODE: 61122 - Dredging - Construction and Maintenance of Dredged Material Disposal Facilities for the Navigation Function.

WORK CATEGORY DESCRIPTION: Construction and Maintenance of Disposal Facilities for Dredged Materials for navigation features.

Includes all costs for the construction and the maintenance of dredged material disposal facilities including confined disposal facilities, and costs for required real estate activities. Also includes related costs for spare parts, replacements, special tools, miscellaneous materials and supplies, transportation, and equipment usage. This does not include cost to prepare Dredge Material Management Plans (DMMP). DMMP costs should be allocated to WCC 60123.

WORK CATEGORY CODE: 61130 – Dam Safety Remediation of Deficiencies for the Navigation Function.

WORK CATEGORY DESCRIPTION: Remediation of Safety Deficiencies for Dams, Levees and Other Structures as appropriate for navigation features.

Includes all direct costs for the non-routine repair, replacement and corrections to all dams included in the National Inventory of Dams plus any levees, diversion structures and related appurtenances maintained at Federal expense to remediate dam safety deficiencies. Includes related costs for contracts, parts, replacements, special tools, supplies and materials, government plant, hired labor to include contract support, transportation costs and other costs required to perform this work. Specifically, this includes non-routine maintenance and/or repair work for dams and pertinent structures and levees that have either been identified by any means as having a Dam Safety Deficiency or has been concurred to be deficient by the District Commander, his appointed Dam Safety Officer or District Dam Safety Program Manager. Dam Safety maintenance or repair work may be identified by any means such as a study, criteria review, or any scheduled or unscheduled inspection. Dam safety related work such as inspections, inspection reports, rehabilitation reports, studies, surveys, and instrumentation will be categorized under the existing Work Category Codes in accordance with current practice. Only the actual work to include the associated plans and specifications (P&S), engineering and design (E&D) for the repairs or remedial corrections will be included in this Work Category Code as appropriate. For those business programs that do not specifically have a Work Category Code for Dam Safety (61130, 61230 and 61330) yet may encounter dam safety related work, the costs should be included in the primary business program for that project. In previous years these costs were included in WCC 61110. Costs are only included in this Work Category

Code if they meet the above definition for Dam Safety. Costs for regular, recurring maintenance activities will not be included in this WCC.

WORK CATEGORY CODE: 61140 - Water Management (Control and Quality) Equipment for the Navigation Function.

WORK CATEGORY DESCRIPTION: Purchase and Maintenance of Water Management (Control and Quality) Equipment for navigation features.

Includes all costs for the purchase of new or replacement hardware, software, and equipment (upgrades, betterments, or expansion) and the maintenance of existing equipment used to acquire, process, display, and distribute data associated with project water management and regulation (water control and quality). This includes only those costs related to equipment justified in approved Division water management Master plans. Purchase of multi-project equipment will be included in the Revolving Fund (PRIP). This includes PRIP payback for equipment purchase, software development, and system betterment for the new Corps Water Management System (CWMS). This also includes costs for maintenance and support of CWMS.

WORK CATEGORY CODE: 61151 - Real Estate - Land Acquisition and Disposal Management Activities, Settlement of Claims, and Audits for the Navigation Function.

WORK CATEGORY DESCRIPTIONS: Real Estate - Land Acquisition and Disposal Management Activities, Settlement of Claims, and Audits for navigation features.

Includes all costs for planning, appraisal, negotiation, condemnation, relocation assistance, mapping, surveying, title evidence, inspections, closings, audits and temporary permits necessary to acquire or dispose of lands and interests. Also includes real estate payments for acquisition of real property and interests therein. Costs to take necessary actions to settle claims, including damage payments arising from claims over the use and occupancy of land, real property and timber in which fee, easements, or lesser interests were not acquired. Includes all administrative costs incurred in connection with timber disposal in support of forest management activities, such as contract administration, and inspection, but excludes the staff supervision of timber management, which is included in Work Category Code 60411.

WORK CATEGORY CODE: 61152 - Real Estate - Resolution of Real Estate Encroachments for the Navigation Function.

WORK CATEGORY DESCRIPTIONS: Real Estate - Resolution of Real Estate Encroachments for navigation features.

Includes all costs for the resolution of all encroachments on project lands, and degradation of public lands and encroachments adversely affecting the intended uses of potentially high use areas; including investigation, acquisition, disposal, and out-granting. The costs for boundary line surveys and remarking are included in Work Category Code 61153.

WORK CATEGORY CODE: 61153 - Real Estate - Boundary Monumentation and Rectification for the Navigation Function.

WORK CATEGORY DESCRIPTIONS: Real Estate - Boundary Monumentation and Rectification for navigation features.

Includes all costs to survey and mark boundary lines in support of acquisition; to resurvey or remark boundary lines and place monuments in support of Executive Order actions and disposal actions, and costs

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to survey and mark boundary lines where not previously completed. Under normal circumstances there will be no work items in the Baseline funding level for this Work Category.

WORK CATEGORY CODE: 61160 - Environmental Compliance (Remedial Actions) for the Navigation Function.

WORK CATEGORY DESCRIPTION: Environmental Compliance (remedial actions) for Locks, Dams, Reservoirs, Breakwaters, Jetties, Seawalls, Piers, Levees, Other Control Structures, Pumping Plants, Other Facilities, Channels and Canals for navigation features.

Includes all maintenance, repair and remediation costs to comply with applicable Federal environmental laws and regulations, including the Safe Drinking Water Act, Resource Conservation and Recovery Act (RCRA), Clean Air Act, Hazardous Materials Transportation Act, the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), EO 13148, and applicable state and local regulations for locks, dams, reservoirs, breakwaters, jetties, seawalls, piers, levees, other control structures, pumping plants, other facilities, channels and canals. Includes cost for corrective actions related to environmental compliance assessment findings related to the Navigation function. Costs include salaries, contaminant detection, waste analysis, site investigations, site remediation, treatment system installation, repair, renovation, modification, and other costs associated with compliance. Costs associated with medical surveillance and other employee health and safety requirements are not included.

WORK CATEGORY CODE: 61170 - O&M Major Rehabilitation Projects for the Navigation Function.

WORK CATEGORY DESCRIPTION: Remaining O&M Funded Major Rehabilitation projects for navigation features.

Includes all major rehabilitation costs such as repair, replacement, additions and efficiency improvements to lock structures and facilities for passage of waterborne traffic, and all costs for facilities and equipment for dams, spillways, outlet works and auxiliary dams including gates, valve operating machinery, lock walls, and guide and guard-walls including dolphins within the lock approaches for tie up, guard, or guide purposes.

NOTE: Major rehabilitation, deficiency correction, and reconstruction projects are programmed for initial Construction (C) appropriation and Inland Waterways Trust Fund moneys, as appropriate, only after applicable reconnaissance and/or evaluation reports have been approved. Work items for Major Rehabilitation Evaluation Reports are included in Work Category Code 60122. This Work Category will be used only until O&M funded Major Rehabilitation projects are completed.

WORK CATEGORY CODE: 61180

WORK CATEGORY DESCRIPTION: Reserved.

WORK CATEGORY CODE: 61191 – Facility Security Maintenance and Replacement for Navigation.

WORK CATEGORY DESCRIPTION: Facility Security – Maintenance and Replacement for navigation features.

Includes all costs to maintain and replace structural improvements for facility protection and security related to criminal and terrorist activities. Includes costs to maintain, repair or replace permanent or temporary barriers, fencing, traffic signs, lighting, communications equipment, intrusion detection systems such as video surveillance equipment and cameras, and access control. Costs for assessments are included in Work Category Code (WCC) 60191, and costs for guards and surveillance activities are included in WCC

60192. Costs for improvements and modifications are included in WCC 61192. Includes some costs formerly included in WCC 61190.

WORK CATEGORY CODE: 61192 – Facility Security Physical Improvements and Modifications for Navigation.

WORK CATEGORY DESCRIPTION: Facility Security – Physical Improvements and Modifications for navigation features.

Includes all costs for engineering and design, and to acquire and install structural improvements, modifications and physical improvements for facility protection and security related to criminal and terrorist activities. Includes costs for permanent or temporary barriers, fencing, traffic signs, lighting, communications equipment, intrusion detection systems such as video surveillance equipment and cameras, and access control. Includes some costs formerly included in WCC 61190.

WORK CATEGORY CODE: 61211 - Maintenance for the Flood Risk Management Function.

WORK CATEGORY DESCRIPTION: Maintenance of Dams, Reservoirs, Levees, Floodwalls, Hurricane Barriers, and Other Flood Risk Management Structures; Snagging, Clearing, Aquatic Plant Removal, Rock and Other Debris Removal, and Other Non-Dredging Flood Risk Management Channel Maintenance; Pumping Plants, Other Service Facilities (Buildings, Grounds, Utilities, and Roads, Railroads and Bridges), Maintenance and Purchase of Permanent Operating Equipment for Non-Water Control Management Activities; etc. excluding dredging for flood risk management features.

Includes all direct costs for the maintenance and repair, replacement, additions and efficiency improvements to, or retirement of; related costs for spare parts, replacements, additions, special tools, miscellaneous supplies and materials; government plant and hired labor for project maintenance and contract support, transportation costs and other costs required to perform this maintenance function; purchase of permanent operating equipment for non-Water Management activities:

- of facilities and equipment for dams, spillways, outlet works and auxiliary dams;
- of reservoirs and facilities including floating trash booms, trash racks, erosion control, drainage, major periodic or one-time removal of debris or aquatic growth to ensure proper functioning of the reservoir (minor and routine removal of growth and debris in the vicinity of dam structures and from reservoirs should be charged to Work Category Code 60210); and rim grouting or mine sealing, etc., to prevent leakage;
- of levees, floodwalls, hurricane barriers, embankments, walls, in-channel structures, and other flood risk management structures to protect areas from inundation; and snagging, clearing, debris removal, and non-dredging flood risk management channel maintenance. This includes direct costs for removal of trees, brush, accumulated snags, drifts, and debris from canals and waterways for flood risk management and major drainage purposes; and channel improvement structures and revetments, linings, dikes, jetties, bulkheads, and buildings (when provided for flood risk management);
- of pumping plants including such items as buildings, pumps, and prime movers including power supplies, controls, piping, and all other associated facilities;
- of buildings, grounds, utilities, and roads, railroads and bridges, such as administration and shop buildings, storage and garage buildings and areas, other non-leased or rented project buildings, local streets and sidewalks, project access roads, including the road across dams, parking areas, bridges, railroads, and walkways. Also includes direct costs for project utilities including electrical, gas, water, and sewer systems; of permanent operating equipment;

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- and for instrumentation on dam structures and levees, floodwalls, hurricane barriers, and other flood risk management structures including all costs for the installation and maintenance of instruments in existing structures for safety evaluation purposes consistent with an approved plan. This includes instrumentation for measuring horizontal and vertical movement, stresses and strains, pore pressure, phreatic surfaces, seismic effects, and seepage clarity and quality.

Costs for Water Supply activities formerly charged to this Work Category Code should now be charged to Work Category Code 61810.

WORK CATEGORY CODE: 61212 - Maintenance of Dikes, Revetments, Breakwaters and Similar Structures for Mississippi River and Tributaries (MR&T) Flood Risk Management.

WORK CATEGORY DESCRIPTION: Maintenance of Dikes, Revetments, Groins, Breakwaters, Jetties, Seawalls and Similar Structures for MR&T flood risk management purposes.

Includes all costs for the maintenance and repair, replacement, additions and efficiency improvements to, or retirement of revetments, dikes, groins, breakwaters, seawalls, piers, linings, training dikes, bulkheads and similar structures. Also includes related costs for spare parts, replacements, additions, special tools, miscellaneous materials and supplies, transportation costs, equipment usage, associated government plant and hired labor for project maintenance, contract support, and other costs.

WORK CATEGORY CODE: 61221 - Dredging Activities for the Flood Risk Management Function.

WORK CATEGORY DESCRIPTION: Dredging of Channels and Canals for flood risk management activities including all disposal activities. Disposal activities include, but are not limited to, confined, open water, beach, wetland creation, aquatic habitat creation, etc..

Includes all costs for dredging, excavation and disposal activities for the maintenance and efficiency improvements of channels and canals for flood risk management purposes, except project condition sediment survey costs which are included in Work Category Code 60221. Includes the costs for before, during and after dredging surveys, required real estate activities, E&D, S&A, etc. Also included are costs to obtain environmental clearances to perform the associated dredging. This Work Category also includes all costs associated with the disposal of dredged materials in confined disposal facilities; open water; sand on beaches; creation or restoration of wetlands or other aquatic habitat using dredged material; and creation of land using dredged material. Also includes related costs for spare parts, special tools, miscellaneous materials and supplies, transportation, disposal, and equipment.

WORK CATEGORY CODE: 61222 - Dredging - Construction and Maintenance of Disposal Facilities for the Flood Risk Management Function.

WORK CATEGORY DESCRIPTION: Construction and Maintenance of Disposal Facilities for Dredged Materials for flood risk management features.

Includes all costs for the construction and the maintenance of dredged material disposal facilities including confined disposal facilities, and required real estate activities. Also includes related costs for spare parts, replacements, special tools, miscellaneous materials and supplies, transportation and equipment usage.

WORK CATEGORY CODE: 61230 - Dam Safety Remediation of Deficiencies for the Flood Risk Management Function.

WORK CATEGORY DESCRIPTION: Remediation of Safety Deficiencies for Dams, Levees and Other

Structures as appropriate for navigation features.

Includes all direct costs for the non-routine repair, replacement and corrections to all dams included in the National Inventory of Dams plus any levees, diversion structures and related appurtenances maintained at Federal expense to remediate dam safety deficiencies. Includes related costs for contracts, parts, replacements, special tools, supplies and materials, government plant, hired labor to include contract support, transportation costs and other costs required to perform this work. Specifically, this includes non-routine maintenance and/or repair work for dams and pertinent structures and levees that have either been identified by any means as having a Dam Safety Deficiency or has been concurred to be deficient by the District Commander, his appointed Dam Safety Officer or District Dam Safety Program Manager. Dam Safety maintenance or repair work may be identified by any means such as a study, criteria review, or any scheduled or unscheduled inspection. Dam safety related work such as inspections, inspection reports, rehabilitation reports, studies, surveys, and instrumentation will be categorized under the existing Work Category Codes in accordance with current practice. Only the actual work to include the associated plans and specifications (P&S), engineering and design (E&D) for the repairs or remedial corrections will be included in this Work Category Code as appropriate. For those business programs that do not specifically have a Work Category Code for Dam Safety (61130, 61230 and 61330) yet may encounter dam safety related work, the costs should be included in the primary business program for that project. In previous years these costs were included in WCC 61110. Costs are only included in this Work Category Code if they meet the above definition for Dam Safety. Costs for regular, recurring maintenance activities will not be included in this WCC.

WORK CATEGORY CODE: 61240 - Water Management (Control and Quality) Equipment for the Flood Risk Management Function.

WORK CATEGORY DESCRIPTION: Purchase and Maintenance of Water Management (Control and Quality) Equipment for flood risk management features.

Includes all costs for the purchase of new or replacement hardware, software, and equipment (upgrades, betterments, or expansion) and the maintenance of existing equipment used to acquire, process, display, and distribute data associated with project water management and regulation (water control and quality). This includes only those costs related to equipment justified in approved Division water management Master plans Purchase of multi-project equipment will be included in the Revolving Fund (PRIP). This includes PRIP payback for equipment purchase, software development, and system betterment for the new Corps Water Management System (CWMS). This also includes costs for maintenance and support of CWMS.

WORK CATEGORY CODE: 61251 - Real Estate - Land Acquisition and Disposal Management Activities, Settlement of Claims, and Audits for the Flood Risk Management Function.

WORK CATEGORY DESCRIPTIONS: Real Estate - Land Acquisition and Disposal Management Activities, Settlement of Claims, and Audits for flood risk management features.

Includes all costs for planning, appraisal, negotiation, condemnation, relocation assistance, mapping, surveying, title evidence, inspections, closings, audits and temporary permits necessary to acquire or dispose of lands and interests. Also includes real estate payments for acquisition of real property and interests therein. Costs to take necessary actions to settle claims, including damage payments arising from claims over the use and occupancy of land, real property and timber in which fee, easements, or lesser interests were not acquired. Includes all administrative costs incurred in connection with timber disposal in support of forest management activities, such as contract administration, and inspection, but excludes the staff supervision of timber management, which is included in Work Category Code 60411.

WORK CATEGORY CODE: 61252 - Real Estate - Resolution of Real Estate Encroachments for the

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Flood Risk Management Function.

WORK CATEGORY DESCRIPTIONS: Real Estate - Resolution of Real Estate Encroachments for flood risk management features.

Includes all costs for the resolution of all encroachments on project lands, and degradation of public lands and encroachments adversely affecting the intended uses of potentially high use areas; including investigation, acquisition, disposal, and out-granting. Costs for boundary line surveys and remarking are included in Work Category Code 61253.

WORK CATEGORY CODE: 61253 - Real Estate - Boundary Monumentation and Rectification for the Flood Risk Management Function.

WORK CATEGORY DESCRIPTIONS: Real Estate - Boundary Monumentation and Rectification for flood risk management features.

Includes all costs to survey and mark boundary lines in support of acquisition; to resurvey or remark boundary lines and place monuments in support of Executive Order actions and disposal actions, and costs to survey and mark boundary lines where not previously completed. Under normal circumstances there will be no work items in the Baseline funding level for this Work Category.

WORK CATEGORY CODE: 61260 - Environmental Compliance (Remedial Actions) for the Flood Risk Management Function.

WORK CATEGORY DESCRIPTION: Environmental Compliance (remedial actions) for Dams, Breakwaters, Jetties, Seawalls, Levees, Floodwalls, Hurricane Barriers, Other Flood Risk Management Structures, Pumping Plants, Other Facilities, Channels and Canals for flood risk management features.

Includes all maintenance, repair and remediation costs to comply with applicable Federal environmental laws and regulations, including the Safe Drinking Water Act, Resource Conservation and Recovery Act (RCRA), Clean Air Act, Hazardous Materials Transportation Act, the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), EO 13148, and applicable state and local regulations for dams, breakwaters, jetties, seawalls, levees, floodwalls, hurricane barriers, other flood risk management structures, pumping plants, other facilities, channels and canals. Includes cost for corrective actions related to environmental compliance assessment findings related to flood risk management activities. Costs include salaries of environmental compliance coordinators and administration, contaminant detection, waste analysis, site investigations, site remediation of recent and past releases or contamination resulting from Flood Risk Management activities; treatment system installation, repair or renovation, erosion protection of structures or pool, responding to spills from FDR facilities, disposal of unclaimed barrels or containers, and responding or clean-up of pesticide or chemical releases that flood risk management activities on Corps or outgranted lands. Costs associated with medical surveillance and other employee health and safety requirements are not included.

WORK CATEGORY CODE: 61270

WORK CATEGORY DESCRIPTION: Reserved.

WORK CATEGORY CODE: 61280

WORK CATEGORY DESCRIPTION: Reserved.

WORK CATEGORY CODE: 61291 – Facility Security Maintenance and Replacement for Flood Risk Management.

WORK CATEGORY DESCRIPTION: Facility Security – Maintenance and Replacement for flood risk management features.

Includes all costs to maintain and replace structural improvements for facility protection and security related to criminal and terrorist activities. Includes costs to maintain, repair or replace permanent or temporary barriers, fencing, traffic signs, lighting, communications equipment, intrusion detection systems such as video surveillance equipment and cameras, and access control. Costs for assessments are included in Work Category Code (WCC) 60291, and costs for guards and surveillance activities are included in WCC 60292. Costs for improvements and modifications are included in WCC 61292. Includes some costs formerly included in WCC 61290.

WORK CATEGORY CODE: 61292 – Facility Security Physical Improvements and Modifications for Flood Risk Management.

WORK CATEGORY DESCRIPTION: Facility Security – Physical Improvements and Modifications for flood risk management features.

Includes all costs for engineering and design, and to acquire and install structural improvements, modifications and physical improvements for facility protection and security related to criminal and terrorist activities. Includes costs for permanent or temporary barriers, fencing, traffic signs, lighting, communications equipment, intrusion detection systems such as video surveillance equipment and cameras, and access control. Includes some costs formerly included in WCC 61290.

WORK CATEGORY CODE: 61310 (61311-61314) Maintenance for the Hydropower Function Costs for this function will be sub-divided as follows:

61311 Maintenance Supervision, FERC #541. Costs for labor, materials and expenses incurred in the general supervision of maintenance of hydraulic power generating stations. Direct supervision of specific jobs is charged to the appropriate maintenance feature;

61312 Maintenance of Hydraulic Structures, FERC #542. Costs for labor, materials and expenses incurred in the maintenance, repair, replacement, additions and efficiency improvements to, and retirement of the powerhouse, and power intake works whether or not the powerhouse is an integral part of the intake dam;

61313 Maintenance of Electric Plant, FERC #544. Costs for labor, materials and expenses incurred in the maintenance, repair, replacement, additions and efficiency improvements to, and retirement of the power plant generating and accessory electrical and mechanical equipment, and switchyard electrical and mechanical equipment;

61314 - Maintenance of Miscellaneous Hydraulic Plant, FERC #545. Costs for labor, materials and expenses incurred in the maintenance, repair, replacement, additions and efficiency improvements to, and retirement of the power plant and switchyard hydraulic plant.

WORK CATEGORY DESCRIPTION: Maintenance of Power Plants, excluding dredging for hydropower features.

Includes all costs for power plant maintenance and repair, replacements, additions and efficiency improvements to, and retirement of all power plant structures; of facilities and equipment required for production, transmission, and distribution of electrical power, including but not limited to the power plant, spillway, low flow bypass systems, storage facilities, turbines, motors, pumps, generators, and governors; of

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all accessory electrical or electronic equipment and control systems; of all water, air, and oil systems; of all intake structures with electrical and mechanical equipment; of the tailrace, switchyard, transformer yard, elevators, trash racks; and of lighting and interior power distribution systems, cable tunnels and conduit runs; and installation of instrumentation. Includes spare parts, special and regular tools, supplies and equipment, scaffolding, and rental of specialized equipment. Includes labor and materials, and incidental expenses incurred to maintain maintenance records; expenses incurred by the power plant management and support staff in the general supervision of the maintenance of the hydraulic generating station; and transportation and per diem costs required to perform power plant maintenance functions. Dredging is included in Work Category Code 61320.

WORK CATEGORY CODE: 61320 - Dredging Activities for the Hydropower Function, FERC #543.

WORK CATEGORY DESCRIPTION: Dredging for hydropower activities including all disposal activities.

Includes all costs for maintenance dredging and disposal activities, except project condition sediment survey costs which are included in Work Category Code 60321. It also includes the costs for before, during and after dredging surveys, required real estate activities, E&D, S&A, etc. Also included are costs to obtain environmental clearances to perform the associated dredging. This Work Category also includes related costs for spare parts, special tools, miscellaneous materials and supplies, transportation, disposal, and equipment.

WORK CATEGORY CODE: 61330 – Dam Safety Remediation of Deficiencies for the Hydropower Function.

WORK CATEGORY DESCRIPTION: Remediation of Safety Deficiencies for Dams, Levees and Other Structures as appropriate for hydropower features.

Includes all direct costs for the non-routine repair, replacement and corrections to all dams included in the National Inventory of Dams plus any levees, diversion structures and related appurtenances maintained at Federal expense to remediate dam safety deficiencies. Includes related costs for contracts, parts, replacements, special tools, supplies and materials, government plant, hired labor to include contract support, transportation costs and other costs required to perform this work. Specifically, this includes non-routine maintenance and/or repair work for dams and pertinent structures and levees that have either been identified by any means as having a Dam Safety Deficiency or has been concurred to be deficient by the District Commander, his appointed Dam Safety Officer or District Dam Safety Program Manager. Dam Safety maintenance or repair work may be identified by any means such as a study, criteria review, or any scheduled or unscheduled inspection. Dam safety related work such as inspections, inspection reports, rehabilitation reports, studies, surveys, and instrumentation will be categorized under the existing Work Category Codes in accordance with current practice. Only the actual work to include the associated plans and specifications (P&S), engineering and design (E&D) for the repairs or remedial corrections will be included in this Work Category Code as appropriate. For those business programs that do not specifically have a Work Category Code for Dam Safety (61130, 61230 and 61330) yet may encounter dam safety related work, the costs should be included in the primary business program for that project. In previous years these costs were included in WCCs 61311-61314. Costs are only included in this Work Category Code if they meet the above definition for Dam Safety. Costs for regular, recurring maintenance activities will not be included in this WCC.

WORK CATEGORY CODE: 61340 - Water Management (Control and Quality) Equipment for the Hydropower Function, FERC #542.

WORK CATEGORY DESCRIPTION: Purchase and Maintenance of Water Management (Control and Quality) Equipment for hydropower features.

Includes all costs for the purchase of new or replacement hardware, software, and equipment (upgrades, betterments, or expansion) and the maintenance of existing equipment used to acquire, process, display, and distribute data associated with project water management and regulation (water control and quality). This includes only those costs related to equipment justified in approved Division water management Master plans. Purchase of multi-project equipment will be included in the Revolving Fund (PRIP). This includes PRIP payback for equipment purchase, software development, and system betterment for the new Corps Water Management System (CWMS). This also includes costs for maintenance and support of CWMS.

WORK CATEGORY CODE: 61351 - Real Estate - Land Acquisition and Disposal Management Activities, Settlement of Claims, and Audits for the Hydropower Function, FERC #545.

WORK CATEGORY DESCRIPTION: Real Estate - Land Acquisition and Disposal Management Activities, Settlement of Claims, and Audits for hydropower features.

Includes all costs for planning, appraisal, negotiation, condemnation, relocation assistance, mapping, surveying, title evidence, inspections, closings, audits and temporary permits necessary to acquire or dispose of lands and interests. Also includes real estate payments for acquisition of real property and interests therein. Costs to take necessary actions to settle claims, including damage payments arising from claims over the use and occupancy of land, real property and timber in which fee, easements, or lesser interests were not acquired. Includes all administrative costs incurred in connection with timber disposal in support of forest management activities, such as contract administration, and inspection, but excludes the staff supervision of timber management, which is included in Work Category Code 60411.

WORK CATEGORY CODE: 61352 - Real Estate - Resolution of Real Estate Encroachments for the Hydropower Function, FERC #545.

WORK CATEGORY DESCRIPTION: Real Estate - Resolution of Real Estate Encroachments for hydropower features.

Includes all costs for the resolution of all encroachments on project lands, and degradation of public lands and encroachments adversely affecting the intended uses of potentially high use areas; including investigation, acquisition, disposal, and out-granting. The costs for boundary line surveys and remarking are not included in this Work Category.

WORK CATEGORY CODE: 61353 - Real Estate - Boundary Monumentation and Rectification for the Hydropower Function, FERC #545.

WORK CATEGORY DESCRIPTION: Real Estate - Boundary Monumentation and Rectification for hydropower features.

Includes all costs to survey and mark boundary lines in support of acquisition; to resurvey or remark boundary lines and place monuments in support of Executive Order actions and disposal actions, and costs to survey and mark boundary lines where not previously completed. Under normal circumstances there will be no work items in the Baseline funding level for this Work Category.

WORK CATEGORY CODE: 61360 - Environmental Compliance (Remedial Actions) for the Hydropower Function, FERC #545.

WORK CATEGORY DESCRIPTION: Environmental Compliance (remedial actions) for Dams, Levees, Other Control Structures, Power Plants, Pumping Plants, and Other Facilities for hydropower features.

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Includes all maintenance, repair and remediation costs to comply with applicable Federal environmental laws and regulations, including the Safe Drinking Water Act, Resource Conservation and Recovery Act (RCRA), Clean Air Act, Hazardous Materials Transportation Act, the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), and applicable state and local regulations for dams, levees, other control structures, power plants, pumping plants, and other facilities. Costs include salaries, contaminant detection, waste analysis, site investigations, site remediation, treatment system installation, repair, renovation, modification, and other costs associated with compliance. Costs associated with medical surveillance and other employee health and safety requirements are not included. Includes cost for corrective actions related to environmental compliance assessment findings related to the Hydropower function.

WORK CATEGORY CODE: 61370 (61371-61374) - O&M Major Rehabilitation Projects for the Hydropower Function Costs for this function will be further subdivided as follows:

61371 - Comprehensive Replacement Supervision, FERC #541. Costs for labor, materials and expenses incurred in the supervision of the comprehensive replacement of hydraulic power generating stations. Direct supervision of specific jobs is charged to the appropriate maintenance feature;

61372 - Comprehensive Replacement of Structures, FERC #542. Costs for labor, materials and expenses incurred in the comprehensive replacement of the powerhouse, switchyard, and power intake works whether or not the powerhouse is an integral part of the intake dam;

61373 - Comprehensive Replacement of Electric Plant, FERC #544. Costs for labor, materials and expenses incurred in the comprehensive replacement of the power plant generating and accessory electrical and mechanical equipment, and switchyard electrical and mechanical equipment;

61374 - Comprehensive Replacement of Miscellaneous Hydraulic Plant, FERC # 545. Costs for labor, materials and expenses incurred in the comprehensive replacement of the power plant and switchyard hydraulic plant.

WORK CATEGORY DESCRIPTION: Remaining O&M Funded Major Rehabilitation (Comprehensive Replacement) projects for hydropower features.

Includes all costs for comprehensive major rehabilitation, replacement, repair, additions and efficiency improvements, including supervision, of all power plant structures, electric plant, miscellaneous hydraulic plant, power plant intake works; of facilities and equipment required for production, transmission, and distribution of electrical power, including but not limited to the power plant, spillway, low flow bypass systems, storage facilities, turbines, motors, pumps, generators, and governors; of all accessory electrical or electronic equipment and control systems; of all water, air, and oil systems; of all intake structures with electrical and mechanical equipment; of the tailrace, switchyard, transformer yard, elevators, trash racks; and of lighting and interior power distribution systems, cable tunnels and conduit runs. Includes labor and materials, special and regular tools, supplies and equipment, scaffolding, and rental of specialized equipment. See Work Category Codes 61310 (61311-61314) and 613N0 (613N1-613N4).

NOTE: Major Rehabilitation work is now funded under the Construction (C) appropriation. Work items for Major Rehabilitation Evaluation Reports are included in Work Category Code 60325. This Work Category will be used only until current O&M funded Major Rehabilitation projects are completed.

WORK CATEGORY CODE: 61380

WORK CATEGORY DESCRIPTION: Reserved.

WORK CATEGORY CODE: 61391 – Facility Security Maintenance and Replacement for Hydropower.

WORK CATEGORY DESCRIPTION: Facility Security – Maintenance and Replacement for hydropower features.

Includes all costs to maintain and replace structural improvements for facility protection and security related to criminal and terrorist activities. Includes costs to maintain, repair or replace permanent or temporary barriers, fencing, traffic signs, lighting, communications equipment, intrusion detection systems such as video surveillance equipment and cameras, and access control. Costs for assessments are included in Work Category Code (WCC) 60391, and costs for guards and surveillance activities are included in WCC

60392. Costs for improvements and modifications are included in WCC 61392. Includes some costs formerly included in WCC 61390.

WORK CATEGORY CODE: 61392 – Facility Security Physical Improvements and Modifications for Hydropower.

WORK CATEGORY DESCRIPTION: Facility Security – Physical Improvements and Modifications for hydropower features.

Includes all costs for engineering and design, and to acquire and install structural improvements, modifications and physical improvements for facility protection and security related to criminal and terrorist activities. Includes costs for permanent or temporary barriers, fencing, traffic signs, lighting, communications equipment, intrusion detection systems such as video surveillance equipment and cameras, and access control. Includes some costs formerly included in WCC 61390.

WORK CATEGORY CODE: 61411 - Maintenance of Natural Resource Facilities for Environmental Stewardship function.

WORK CATEGORY DESCRIPTION: Maintenance of Natural Resource Facilities.

Includes all costs to perform maintenance needed to foster healthy and sustainable lands and waters, and to conserve and protect natural resources and associated facilities located on project lands. This Work Category only includes costs during the conservation or protection effort.

WORK CATEGORY CODE: 61412 - Mitigation of Archeological and Cultural Resources.

WORK CATEGORY DESCRIPTION: Mitigation of Archeological and Cultural Resources such as Sites, Structures, and Objects.

Includes all costs to manage, curate, maintain and rehabilitate identified archeological collections and associated documentation and long term collections management. Also includes cultural resources mitigation costs to protect, recover, preserve or otherwise mitigate significant archaeological, historical, and cultural buildings, sites, structures or objects. This Work Category only includes costs during the recovery, preservation, or mitigation effort.

WORK CATEGORY CODE: 61413 - Maintenance of Natural Resources Mitigation Features for Environmental Stewardship.

WORK CATEGORY DESCRIPTION: Maintenance of Natural Resources Mitigation Features for Environmental Stewardship.

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Includes all costs for the maintenance and repair of natural resources mitigation features to comply with mitigation requirements specified in Federal law, Congressional legislation, or in HQ approved project authorization decision document, to offset unavoidable natural resources and ecological losses caused by the construction of a project or by project operation activities. This Work Category only includes costs during the mitigation effort.

WORK CATEGORY CODE: 61414 - Maintenance of Fisheries, Fish Haulage Activities and Fish Passage Structures.

WORK CATEGORY DESCRIPTION: Maintenance of Fisheries, Fish Haulage Activities and Fish Passage Structures for environmental stewardship features.

Includes all costs for maintenance and repair of fish hatcheries, egg collection stations, transportation equipment, and fish passage facilities.

WORK CATEGORY CODE: 61418 – Maintenance of Special Status Species for Environmental Stewardship Function.

WORK CATEGORY DESCRIPTION: Maintenance of Special Status Species for environmental stewardship features.

Includes all costs for maintenance of resources and features supporting special status species. Includes costs of salaries, contracts, equipment, supplies and materials to protect and maintain species of special concern such as Federal or state listed endangered, threatened, rare or sensitive species, including activities in areas under license, lease, or outgrant. Includes activities undertaken to maintain a resource, population, habitat or management feature, such as vegetation manipulation, timber management, prescribed burning, and activities to protect populations and individual specimens (e.g. citation authority program, surveillance activities, identifying and monitoring exclusion zones). The cost of special status species maintenance that is a function of activities of another business line, e.g. navigation, shall be funded by that business line as a cost of doing business, using work category codes associated with the appropriate business line.

WORK CATEGORY CODE: 61421 - Dredging Activities for the Environmental Stewardship Function.

WORK CATEGORY DESCRIPTION: Dredging of Channels and Canals for environmental stewardship activities including all disposal activities. Disposal activities include, but are not limited to, confined, open water, beach, wetland creation, aquatic habitat creation, etc..

Includes all costs for maintenance dredging of project channels and canals, and disposal activities, except project condition sediment survey costs which are included in Work Category Code 60420. It also includes the costs for before, during and after dredging surveys, required real estate activities, E&D, S&A, etc. Also included are costs to obtain environmental clearances to perform the associated dredging. This Work Category also includes all costs associated with the disposal of dredged materials in confined disposal facilities; open water; sand on beaches; creation or restoration of wetlands or other aquatic habitat using dredged material; and creation of land using dredged material. Also includes related costs for spare parts, special tools, miscellaneous materials and supplies, transportation, disposal, and equipment.

WORK CATEGORY CODE: 61422 - Dredging - Construction and Maintenance of Disposal Facilities for the Environmental Stewardship Function.

WORK CATEGORY DESCRIPTION: Construction and Maintenance of Disposal Facilities for Dredged Materials for environmental stewardship features.

Includes all costs for the construction and the maintenance of disposal facilities including confined disposal facilities, and required real estate activities. Also includes related costs for spare parts, replacements, special tools, miscellaneous materials and supplies, transportation and equipment usage.

WORK CATEGORY CODE: 61430

WORK CATEGORY DESCRIPTION: Reserved.

WORK CATEGORY CODE: 61440 - Water Management (Control and Quality) Equipment for the Environmental Stewardship Function.

WORK CATEGORY DESCRIPTION: Purchase and Maintenance of Water Management (Control and Quality) Equipment for environmental stewardship features.

Includes all costs for the purchase of new or replacement hardware, software, and equipment (upgrades, betterments, or expansion) and the maintenance of existing equipment used to acquire, process, display, and distribute data associated with project water management and regulation (water control and quality). This includes only those costs related to equipment justified in approved Division water management Master plans. Purchase of multi-project equipment will be included in the Revolving Fund (PRIP). This includes PRIP payback for equipment purchase, software development, and system betterment for the new Corps Water Management System (CWMS). This also includes costs for maintenance and support of CWMS.

WORK CATEGORY CODE: 61451 - Real Estate - Land Acquisition and Disposal Management Activities, Settlement of Claims, and Audits for the Environmental Stewardship Function.

WORK CATEGORY DESCRIPTION: Real Estate - Land Acquisition and Disposal Management Activities, Settlement of Claims, and Audits for environmental stewardship features.

Includes all costs for planning, appraisal, negotiation, condemnation, relocation assistance, mapping, surveying, title evidence, inspections, closings, audits and temporary permits necessary to acquire or dispose of lands and interests. Also includes real estate payments for acquisition of real property and interests therein. Costs to take necessary actions to settle claims, including damage payments arising from claims over the use and occupancy of land, real property and timber in which fee, easements, or lesser interests were not acquired. (NOTE: Includes administrative costs incurred in connection with timber disposal in support of forest management activities, such as contract administration, and inspection. However, do not include those commodity (e.g. timber, crops, sand) sales costs that are expected to be funded by the proceeds from the sale of project commodities. Staff supervision of timber management should be included in Work Category Code 60411).

WORK CATEGORY CODE: 61452 - Real Estate - Resolution of Real Estate Encroachments for the Environmental Stewardship Function.

WORK CATEGORY DESCRIPTION: Real Estate - Resolution of Real Estate Encroachments for environmental stewardship features.

Includes all costs for the resolution of all encroachments on project lands, and degradation of public lands and encroachments adversely affecting the intended uses of potentially high use areas; including investigation, acquisition, disposal, and out-granting. Costs for boundary line surveys and remarking are included in Work Category Code 61453.

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WORK CATEGORY CODE: 61453 - Real Estate - Boundary Monumentation and Rectification for the Environmental Stewardship Function.

WORK CATEGORY DESCRIPTION: Real Estate - Boundary Monumentation and Rectification for environmental stewardship features.

Includes all costs to survey and mark boundary lines in support of acquisition; to resurvey or remark boundary lines and place monuments in support of Executive Order actions and disposal actions, and costs to survey and mark boundary lines where not previously completed. Under normal circumstances there will be no work items in the Baseline funding level for this Work Category.

WORK CATEGORY CODE: 61460 - Environmental Compliance (Remedial Actions) for the Environmental Stewardship Function.

WORK CATEGORY DESCRIPTION: Environmental Compliance (remedial actions) of Natural Resources including Other Service Facilities for environmental stewardship features.

Includes all maintenance, repair and remediation costs to comply with applicable Federal laws and regulations, including the Safe Drinking Water Act, Resource Conservation and Recovery Act (RCRA), Clean Air Act, Hazardous Materials Transportation Act, the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), EO 13148, and applicable state and local regulations for natural resources and other environmental stewardship features. Costs include salaries, contaminant detection, waste analysis, site investigations, site remediation, treatment system installation, repair, renovation, modification, and other costs associated with compliance. Costs associated with medical surveillance and other employee health and safety requirements are not included.

WORK CATEGORY CODE: 61470

WORK CATEGORY DESCRIPTION: Reserved.

WORK CATEGORY CODE: 61480

WORK CATEGORY DESCRIPTION: Reserved.

WORK CATEGORY CODE: 61491 – Facility Security Maintenance and Replacement for Environmental Stewardship.

WORK CATEGORY DESCRIPTION: Facility Security – Maintenance and Replacement for environmental stewardship features.

Includes all costs to maintain and replace structural improvements for facility protection and security related to criminal and terrorist activities. Includes costs to maintain, repair or replace permanent or temporary barriers, fencing, traffic signs, lighting, communications equipment, intrusion detection systems such as video surveillance equipment and cameras, and access control. Costs for assessments are included in Work Category Code (WCC) 60491, and costs for guards and surveillance activities are included in WCC 60492. Costs for improvements and modifications are included in WCC 61492. Includes some costs formerly included in WCC 61490.

WORK CATEGORY CODE: 61492 – Facility Security Physical Improvements and Modifications for Environmental Stewardship.

WORK CATEGORY DESCRIPTION: Facility Security – Physical Improvements and Modifications for environmental stewardship features.

Includes all costs for engineering and design, and to acquire and install structural improvements, modifications and physical improvements for facility protection and security related to criminal and terrorist activities. Includes costs for permanent or temporary barriers, fencing, traffic signs, lighting, communications equipment, intrusion detection systems such as video surveillance equipment and cameras, and access control. Includes some costs formerly included in WCC 61490.

WORK CATEGORY CODE: 61511 - Maintenance of Recreation Features.

WORK CATEGORY DESCRIPTION: Maintenance of Recreation areas and Facilities, Service Facilities – (Buildings, Grounds, Utilities, Roads and Bridges), Erosion Control in Recreation Areas, and Maintenance and Purchase of Permanent Operating Equipment for recreation features.

Includes all costs for the maintenance and repair, replacement, additions and efficiency improvements to, or retirement of, recreation facilities and structures such as grills, tables, playgrounds, trails, campgrounds, picnic areas, restrooms, showers, boat ramps, parking areas, roads, grounds, utilities associated with recreation use, buildings used for recreation purposes or the collection of fees and other structures used to support the recreation function. Also included are the costs for realignment, overlay, grading, and widening, of roads, parking areas, bridges and walkways associated with recreational development, and all costs for control of erosion endangering recreational areas or facilities, including seeding, sodding, riprap, gabions, vegetation, retaining walls and other measures. Also includes the costs for permanent operating equipment such as backhoe, trencher, bucket truck, tractor loader, vehicles, communications equipment, and computers used to support the recreation function of the project. This Work Category also includes costs for spare parts, replacements, additions, special tools, miscellaneous materials and supplies, transportation costs and equipment usage, and costs to bring facilities up to modern design standards and to provide accessibility for persons with disabilities as required. Includes costs for new recreation facilities, if the goal of providing quality public recreation experiences with the most cost efficient management of water resources development projects can be met.

This Work Category Code includes costs previously included in Work Category Code 61512, Maintenance of Recreation Facilities using SRUF funds. SRUF costs previously included under Work Category Code 61512 should now be included under Work Category Code 61511.

WORK CATEGORY CODE: 61513 - Maintenance of Recreation Features - Cost Shared Recreation Developments.

WORK CATEGORY DESCRIPTION: Cost Shared Recreation Developments - Contracts and Negotiations. Includes all recreation cost share agreements and contract costs; costs to reimburse local sponsors; and costs for monitoring and negotiating agreements related to cost sharing.

WORK CATEGORY CODE: 61514 – Maintenance of Visitor Centers.

WORK CATEGORY DESCRIPTION: Maintenance of Visitor Centers for recreation features.

Includes all costs for the maintenance and repair, replacement, additions and efficiency improvements to, or retirement of, visitor center buildings, displays, audiovisual systems, heating and cooling systems, landscaping, grounds, exhibits and utilities. Also includes costs for spare parts, replacements, additions, special tools, miscellaneous materials and supplies, transportation costs and equipment usage. These costs were formerly included in WCC 61511.

WORK CATEGORY CODE: 61515 – Modernization of Recreation Features.

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WORK CATEGORY DESCRIPTION: Modernization of recreation features.

Includes all costs for the modernization, replacement or additions for modernization to recreation facilities and structures such as trails, campgrounds, picnic areas, restrooms, showers, boat ramps, parking areas, roads, grounds, utilities associated with recreation use, buildings used for recreation purposes or the collection of fees and other structures used to support the recreation function. Also includes costs for spare parts, replacements, additions, special tools, miscellaneous materials and supplies, transportation costs and equipment usage, and costs to bring facilities up to modern design standards and to provide accessibility for persons with disabilities as required. Also, includes costs for E&D and P&S for the Recreation Modernization Program. Work should be included in this Work Category Code (WCC) rather than WCC 61511 if the primary reason for the work is to update existing facilities to meet current guidelines and user needs, as well as modifying facilities and services to improve efficiency and effectiveness. If the primary reason to do work is non-operational maintenance, it should be included in WCC 61511, even if some modernization will be accomplished in conjunction with the work. These costs were formerly included in WCC 61511.

WORK CATEGORY CODE: 61520 - Dredging Activities for the Recreation Function.

WORK CATEGORY DESCRIPTION: Dredging for recreation activities including all disposal activities.

Includes all costs for maintenance dredging and disposal activities for the recreation function, except project condition sediment survey costs which are included in Work Category Code 60520. It also includes the costs for before, during and after dredging surveys, required real estate activities, E&D, S&A, etc. Also included are costs to obtain environmental clearances to perform the associated dredging. Also includes all costs associated with the disposal of dredged materials as sand on beaches, and related costs for spare parts, special tools, miscellaneous materials and supplies, transportation, disposal, and equipment.

WORK CATEGORY CODE: 61530

WORK CATEGORY DESCRIPTION: Reserved.

WORK CATEGORY CODE: 61540 - Water Management (Control and Quality) Equipment for the Recreation Function.

WORK CATEGORY DESCRIPTION: Purchase and Maintenance of Water Management (Control and Quality) Equipment for recreation features.

Includes all costs for the purchase of new or replacement hardware, software, and equipment (upgrades, betterments or expansion) and the maintenance of existing equipment used to acquire, process, display, and distribute data associated with project water management and regulation (water control and quality) for the recreation function. This includes only those costs related to equipment justified in approved Division water management Master plans. Purchase of multi-project equipment will be included in the Revolving Fund (PRIP). This includes PRIP payback for equipment purchase, software development, and system betterment for the Corps new Water Management System (SWMS). This also includes costs for maintenance and support of CWMS.

WORK CATEGORY CODE: 61551 - Real Estate - Land Acquisition and Disposal Management Activities, Settlement of Claims, and Audits for the Recreation Function.

WORK CATEGORY DESCRIPTION: Real Estate - Land Acquisition and Disposal Management Activities, Settlement of Claims, and Audits for recreation features.

Includes all costs for planning, appraisal, negotiation, condemnation, relocation assistance, mapping surveying, title evidence, inspection, closing, audits and temporary permits necessary to acquire or dispose of lands and interests that support the recreational features of a project.

WORK CATEGORY CODE: 61552 - Real Estate - Resolution of Real Estate Encroachments for the Recreation Function.

WORK CATEGORY DESCRIPTION: Real Estate - Resolution of Real Estate Encroachments for recreation features.

Includes all costs for the resolution of all encroachments on projects lands classified for recreational use and degradation of public lands and encroachments adversely affecting the recreational use of the project; including investigation, acquisition, disposal, and out-granting. Costs for boundary line surveys and remarking should be included in Work Category Code 61553.

WORK CATEGORY CODE: 61553 - Real Estate - Boundary Monumentation and Rectification for the Recreation Function.

WORK CATEGORY DESCRIPTION: Real Estate - Boundary Monumentation and Rectification for recreation features.

Includes all costs to survey and mark boundary lines in support of acquisition; to resurvey or remark boundary lines and place monuments in support of Executive Order actions and disposal actions, and costs to survey and mark boundary lines where not previously completed on lands classified for recreational use at a project.

WORK CATEGORY CODE: 61560 - Environmental Compliance (Remedial Actions) for the Recreation Function.

WORK CATEGORY DESCRIPTION: Environmental Compliance (remedial actions) for recreation features.

Includes all maintenance, repair and remediation costs to comply with applicable Federal environmental laws and regulations, including the Safe Drinking Water Act, Resource Conservation and Recovery Act (RCRA), Clean Air Act, Hazardous Materials Transportation Act, the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), EO 13148, and applicable state and local regulations for recreation facilities and visitor centers. Costs include salaries, contaminant detection, waste analysis, site investigations, site remediation, treatment system installation, repair, renovation, and modification. Other costs associated with compliance include activities such as responding to marinas spills, updating hazard communication, disposal of unclaimed barrels or containers, and responding or clean-up of pesticide or chemical releases that support recreational activities on Corps owned land. Costs associated with medical surveillance and other employee health and safety requirements are not included.

WORK CATEGORY CODE: 61570

WORK CATEGORY DESCRIPTION: Reserved.

WORK CATEGORY CODE: 61580

WORK CATEGORY DESCRIPTION: Reserved.

WORK CATEGORY CODE: 61591 – Facility Security Maintenance and Replacement for Recreation.

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WORK CATEGORY DESCRIPTION: Facility Security – Maintenance and Replacement for recreation features.

Includes all costs to maintain and replace structural improvements for facility protection and security related to criminal and terrorist activities. Includes costs to maintain, repair or replace permanent or temporary barriers, fencing, traffic signs, lighting, communications equipment, intrusion detection systems such as video surveillance equipment and cameras, and access control. Costs for assessments are included in Work Category Code (WCC) 60591, and costs for guards and surveillance activities are included in WCC 60592. Costs for improvements and modifications are included in WCC 61592. Includes some costs formerly included in WCC 61590.

WORK CATEGORY CODE: 61592 – Facility Security Physical Improvements and Modifications for Recreation.

WORK CATEGORY DESCRIPTION: Facility Security – Physical Improvements and Modifications for recreation features.

Includes all costs for engineering and design, and to acquire and install structural improvements, modifications and physical improvements for facility protection and security related to criminal and terrorist activities. Includes costs for permanent or temporary barriers, fencing, traffic signs, lighting, communications equipment, intrusion detection systems such as video surveillance equipment and cameras, and access control. Includes some costs formerly included in WCC 61590.

WORK CATEGORY CODE: 61610 - Joint Activities for Maintenance excluding Dredging, FERC #541, #542, #543, #544 and #545.

WORK CATEGORY DESCRIPTION: Joint costs for Maintenance activities NOT specific to Navigation, Flood Risk Management, Hydropower, Environmental Stewardship, Recreation and Water Supply. These activities include maintenance of Dams, Reservoirs, Levees, Floodwalls, Hurricane Barriers, and Other Control Structures; Snagging, Clearing, Aquatic Plant Removal, Rock and Other Debris Removal, and Other Non-Dredging Channel Maintenance; Pumping Plants, Other Service Facilities (Buildings, Grounds, Utilities, and Roads, Railroads and Bridges), Gates, Conduits, Maintenance and Purchase of Permanent Operating Equipment, etc. excluding dredging.

Includes all joint costs for the maintenance and repair, replacement, additions and efficiency improvements to, or retirement of; related joint costs for spare parts, replacements, additions, special tools, miscellaneous supplies and materials; government plant and hired labor for project maintenance and contract support, transportation costs and other costs required to perform this maintenance function; purchase of permanent operating equipment:

- of joint use facilities and equipment for dams, spillways, outlet works and auxiliary dams;
- of reservoirs and facilities including floating trash booms, trash racks, erosion control, drainage, major periodic or one time removal of debris or aquatic growth to ensure proper functioning of the reservoir (minor and routine removal of growth and debris in the vicinity of dam structures and from reservoirs should be charged to Work Category Code 60610); and rim grouting or mine sealing, etc., to prevent leakage;
- of levees, floodwalls, hurricane barriers, embankments, walls, in-channel structures, and other control structures to protect areas from inundation; snagging, clearing, debris removal; and non-dredging channel maintenance. This includes costs for removal of trees, brush, accumulated snags, drifts, and debris from canals and waterways; and channel improvement structures, revetments, linings, dikes, jetties, bulkheads, and buildings;

- of pumping plants including such items as buildings, pumps, and prime movers including power supplies, controls, piping, and all other associated facilities;
- of non-dredging channel maintenance including snagging, clearing, aquatic plant removal, removal of sunken vessels, drift removal, rock and other debris removal;
- of buildings, grounds, utilities, and roads, railroads and bridges, such as administration and shop buildings, storage and garage buildings and areas, other non-leased or rented project buildings, local streets and sidewalks, project access roads, including the road across dams, parking areas, bridges, railroads, and walkways. Also includes costs for project utilities including electrical, gas, water, and sewer systems;
- of permanent operating equipment;
- and for instrumentation on dam structures, levees, floodwalls, hurricane barriers, and other control structures including costs related to installation and maintenance of instruments in existing structures for safety evaluation purposes consistent with an approved plan. This includes instrumentation for measuring horizontal and vertical movement, stresses and strains, pore pressure, phreatic surfaces, seismic effects, and seepage clarity and quality.

WORK CATEGORY CODE: 61621 - Joint Activities for Dredging, FERC #543.

WORK CATEGORY DESCRIPTION: Joint costs for Dredging of Channels and Canals NOT specific to Navigation, Flood Risk Management, Hydropower, Environmental Stewardship, Recreation and Water Supply. These activities include all disposal activities such as confined, open water, beach, wetland creation, aquatic habitat creation, etc.

Includes all joint costs for maintenance dredging of project channels and canals, and disposal activities, except for project condition sediment survey costs which are included in Work Category Code 60621. Also included are joint costs to obtain environmental clearances to perform the associated dredging. Long-range environmental requirements and costs for initial project condition surveys are included in related operations accounts. Also includes joint costs associated with the disposal of dredged materials in confined disposal facilities; open water; sand on beaches; the creation or restoration of wetlands or other aquatic habitat using dredged material; and the creation of land using dredged material. Also includes related joint costs for spare parts, replacements, special tools, miscellaneous materials and supplies, transportation and equipment usage.

WORK CATEGORY CODE: 61622 - Joint Activities for Dredging - Construction and Maintenance of Dredged Material Disposal Facilities, FERC #543.

WORK CATEGORY DESCRIPTION: Joint costs for the Construction and Maintenance of Disposal Facilities for Dredged Materials NOT specific to Navigation, Flood Risk Management, Hydropower, Environmental Stewardship, Recreation and Water Supply.

Includes all joint costs for the construction and the maintenance of disposal facilities, including confined disposal facilities, for dredged materials. Also includes related joint costs for spare parts, replacements, special tools, miscellaneous materials and supplies, transportation and equipment usage.

WORK CATEGORY CODE: 61630 - Joint Activities for Dam Safety Remediation of Deficiencies.

WORK CATEGORY DESCRIPTION: Joint costs for Remediation of Safety Deficiencies for Dams, Levees and Other Structures as appropriate NOT specific to Navigation, Flood Risk Management, Hydropower,

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Environmental Stewardship, Recreation and Water Supply.

Includes all direct costs for the non-routine repair, replacement and corrections to all dams included in the National Inventory of Dams plus any levees, diversion structures and related appurtenances maintained at Federal expense to remediate dam safety deficiencies. Includes related costs for contracts, parts, replacements, special tools, supplies and materials, government plant, hired labor to include contract support, transportation costs and other costs required to perform this work. Specifically, this includes non-routine maintenance and/or repair work for dams and pertinent structures and levees that have either been identified by any means as having a Dam Safety Deficiency or has been concurred to be deficient by the District Commander, his appointed Dam Safety Officer or District Dam Safety Program Manager. Dam Safety maintenance or repair work may be identified by any means such as a study, criteria review, or any scheduled or unscheduled inspection. Dam safety related work such as inspections, inspection reports, rehabilitation reports, studies, surveys, and instrumentation will be categorized under the existing Work Category Codes in accordance with current practice. Only the actual work to include the associated plans and specifications (P&S), engineering and design (E&D) for the repairs or remedial corrections will be included in this Work Category Code as appropriate. For those business programs that do not specifically have a Work Category Code for Dam Safety (61130, 61230 and 61330) yet may encounter dam safety related work, the costs should be included in the primary business program for that project. Costs are only included in this Work Category Code if they meet the above definition for Dam Safety. Costs for regular, recurring maintenance activities will not be included in this WCC.

WORK CATEGORY CODE: 61640 - Joint Activities for Water Management Equipment, FERC #542.

WORK CATEGORY DESCRIPTION: Joint costs for the Purchase and Maintenance of Water.

Management (Control and Quality) Equipment NOT specific to Navigation, Flood Risk Management, Hydropower, Environmental Stewardship, Recreation and Water Supply. Includes all joint costs for the purchase of new or replacement hardware, software, and equipment (upgrades, betterments or expansion) and the maintenance of existing equipment used to acquire, process, display, and distribute data associated with project water management and regulation (water control and quality). This includes only those costs related to equipment justified in approved Division water management Master plans. Purchase of multi-project equipment will be included in the Revolving Fund (PRIP). This includes PRIP payback for equipment purchase, software development, and system betterment for the Corps new Water Management System (SWMS). This also includes costs for maintenance and support of CWMS.

WORK CATEGORY CODE: 61651 - Joint Activities for Real Estate - Land Acquisition and Disposal Management Activities, Settlement of Claims, and Audits, FERC #545.

WORK CATEGORY DESCRIPTION: Joint costs for Real Estate activities - Land Acquisition and Disposal Management Activities, Settlement of Claims, and Audits NOT specific to Navigation, Flood Risk Management, Hydropower, Environmental Stewardship, Recreation and Water Supply.

Includes all joint costs for planning, appraisal, negotiation, condemnation, relocation assistance, mapping, surveying, title evidence, inspections, closings, audits and temporary permits necessary to acquire or dispose of lands and interests, real estate payments for acquisition of real property and interests therein, and costs to take necessary actions to settle claims, including damage payments arising from claims over the use and occupancy of land, real property and timber in which fee, easements, or lesser interests were not acquired.

WORK CATEGORY CODE: 61652 - Joint Activities for Real Estate - Resolution of Real Estate Encroachments, FERC #545.

WORK CATEGORY DESCRIPTION: Joint costs for Real Estate activities - Resolution of Real Estate Encroachments NOT specific to Navigation, Flood Risk Management, Hydropower, Environmental Stewardship, Recreation and Water Supply.

Includes all joint costs for the resolution of all encroachments on project lands, and degradation of public lands and encroachments adversely affecting the intended uses of potentially high use areas; including investigation, acquisition, disposal, and out-granting.

WORK CATEGORY CODE: 61653 - Joint Activities for Real Estate - Boundary Monumentation and Rectification, FERC #545.

WORK CATEGORY DESCRIPTION: Joint costs for Real Estate activities - Boundary Monumentation and Rectification NOT specific to Navigation, Flood Risk Management, Hydropower, Environmental Stewardship, Recreation and Water Supply.

Includes all joint costs to survey and mark boundary lines in support of acquisition; to resurvey or remark boundary lines and place monuments in support of Executive Order actions and disposal actions; and costs to survey and mark boundary lines where not previously completed.

WORK CATEGORY CODE: 61660 - Joint Activities for Environmental Compliance (Remedial Actions), FERC #545.

WORK CATEGORY DESCRIPTION: Joint costs for Environmental Compliance (remedial actions) NOT specific to Navigation, Flood Risk Management, Hydropower, Environmental Stewardship, Recreation and Water Supply. These activities include actions for Dams, Levees, Other Control Structures, Pumping Plants and Other Project Facilities.

Includes all joint costs maintenance, repair and remediation costs to comply with applicable Federal laws and regulations, including the Safe Drinking Water Act, Resource Conservation and Recovery Act (RCRA), Clean Air Act, Hazardous Materials Transportation Act, the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), EO 13148, and applicable state and local regulations for dams, reservoirs, levees, other control structures, pumping plants and other joint use project facilities. Costs include salaries, contaminant detection, waste analysis, site investigations, site remediation, treatment system installation, repair, renovation, modification, and other costs associated with compliance. Costs associated with medical surveillance and other employee health and safety requirements are not included.

WORK CATEGORY CODE: 61670

WORK CATEGORY DESCRIPTION: Reserved.

WORK CATEGORY CODE: 61680

WORK CATEGORY DESCRIPTION: Reserved.

WORK CATEGORY CODE: 61691 – Joint Activities for Facility Security Maintenance and Replacement.

WORK CATEGORY DESCRIPTION: Joint Costs for Facility Security – Maintenance and Replacement NOT specific to Navigation, Flood Risk Management, Hydropower, Environmental Stewardship, Recreation and Water Supply.

Includes all joint costs to maintain and replace structural improvements for facility protection and security related to criminal and terrorist activities. Includes joint costs to maintain, repair or replace permanent or

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temporary barriers, fencing, traffic signs, lighting, communications equipment, intrusion detection systems such as video surveillance equipment and cameras, and access control. Joint costs for assessments are included in Work Category Code 60691, and costs for guards and surveillance activities are included in Work Category Code 60692.

WORK CATEGORY CODE: 61692 – Joint Activities for Facility Security Physical Improvements and Modifications.

WORK CATEGORY DESCRIPTION: Joint Costs for Facility Security – Physical Improvements and Modifications NOT specific to Navigation, Flood Risk Management, Hydropower, Environmental Stewardship, Recreation and Water Supply.

Includes all joint costs for engineering and design, and to acquire and install structural improvements, modifications and physical improvements for facility protection and security related to criminal and terrorist activities. Includes joint costs for permanent or temporary barriers, fencing, traffic signs, lighting, communications equipment, intrusion detection systems such as video surveillance equipment and cameras, and access control. Joint costs for assessments are included in Work Category Code 60691, and costs for guards and surveillance activities are included in Work Category Code 60692.

WORK CATEGORY CODE: 61810 - Maintenance for the Water Supply Function

WORK CATEGORY DESCRIPTION: Maintenance of Project Gates, Water Supply Conduits, Permanent Operating Equipment, etc. excluding dredging activities for water supply features.

Includes all direct costs for the maintenance and repair, replacement, additions and efficiency improvements to, or retirement of; related costs for spare parts, replacements, additions, special tools, miscellaneous supplies and materials; government plant and hired labor for project maintenance and contract support, transportation costs and other costs required to perform this maintenance function; purchase of permanent operating equipment for non-Water Management activities: of project gates and specific water supply conduits; and permanent operating equipment. Prior to FY07, these costs were included in WCC 61211.

SUB-ANNEX III-5

Operation and Maintenance

Systems and Justification Sheets

III-5-1. Operations and Maintenance Systems and Regions. The PY O&M budget will be formulated based on performance goals and objectives and risk-based indices (details can be found in the business line Appendices). Also basin codes will continue to be attached to projects on a system basis although the budget will be presented on a project by project basis. The systems were developed, using HUC sub-regions as established by the US Geological Survey.

III-5-2. Justification Sheets for O&M for Congressional Submission.

a. J-Sheets will be in accordance with the MAIN part of this EC, paragraph 16. Each MSC shall prepare and submit Justification Sheets (J-sheets) for each O&M project, using the format and template in ILLUSTRATION III-5.3. A sample O&M J-sheet is shown in ILLUSTRATION III-5.4

b. To avoid allocation problems associated with roll-ups, projects spanning more than one district should be entered separately with titles showing the district name, for example:

OHIO RIVER LOCKS AND DAMS, PA (Pittsburgh Dist.)
OHIO RIVER LOCKS AND DAMS, WV (Huntington Dist.)
OHIO RIVER LOCKS AND DAMS, KY, IL, IN, OH, & WV (Louisville Dist.)

(Other projects include Ohio River Open Channel Work, McClellan-Kerr, Missouri River and the Upper Mississippi River).

c. Justification sheets for National programs or, activities such as Inspection of Completed Works, Scheduling Reservoir Activities, and Project Condition Surveys will be prepared by HQUSACE

III-5-3. State Designations. Includes Inspection of Completed Works (ICW), Project Condition Surveys (PCS), Scheduling Reservoir Operations (SRO), Surveillance of Northern Boundary Waters (SNBW) and Inspection of Ecosystem Restoration Projects.

a. Each of these programs will have a budget activity per state per funding increment. In those cases where these programs are performed in more than one state, the district will have a budget activity for each state. The budget activities do not necessarily have to be in the same funding increment. For example, Little Rock District (SWL) has projects in Missouri and Arkansas therefore SWL should have at least two ICW budget activities, one for Missouri and one for Arkansas. Some SWL projects cross state lines such as Table Rock Lake. All the ICW for this project should be included for its primary state, which is Missouri.

b. The justification/Remarks will indicate how many surveys, inspections, actions, etc. of that districts total will be performed for the respective Business Program funding increment. For example the Business Line initial increment ICW budget activity for SWL for Missouri would state five critical inspections would be conducted out of a total of 10 in the PY. Additional ICW budget activity(s) would be included in next-added Business Line increments as justified by increased performance or benefits.

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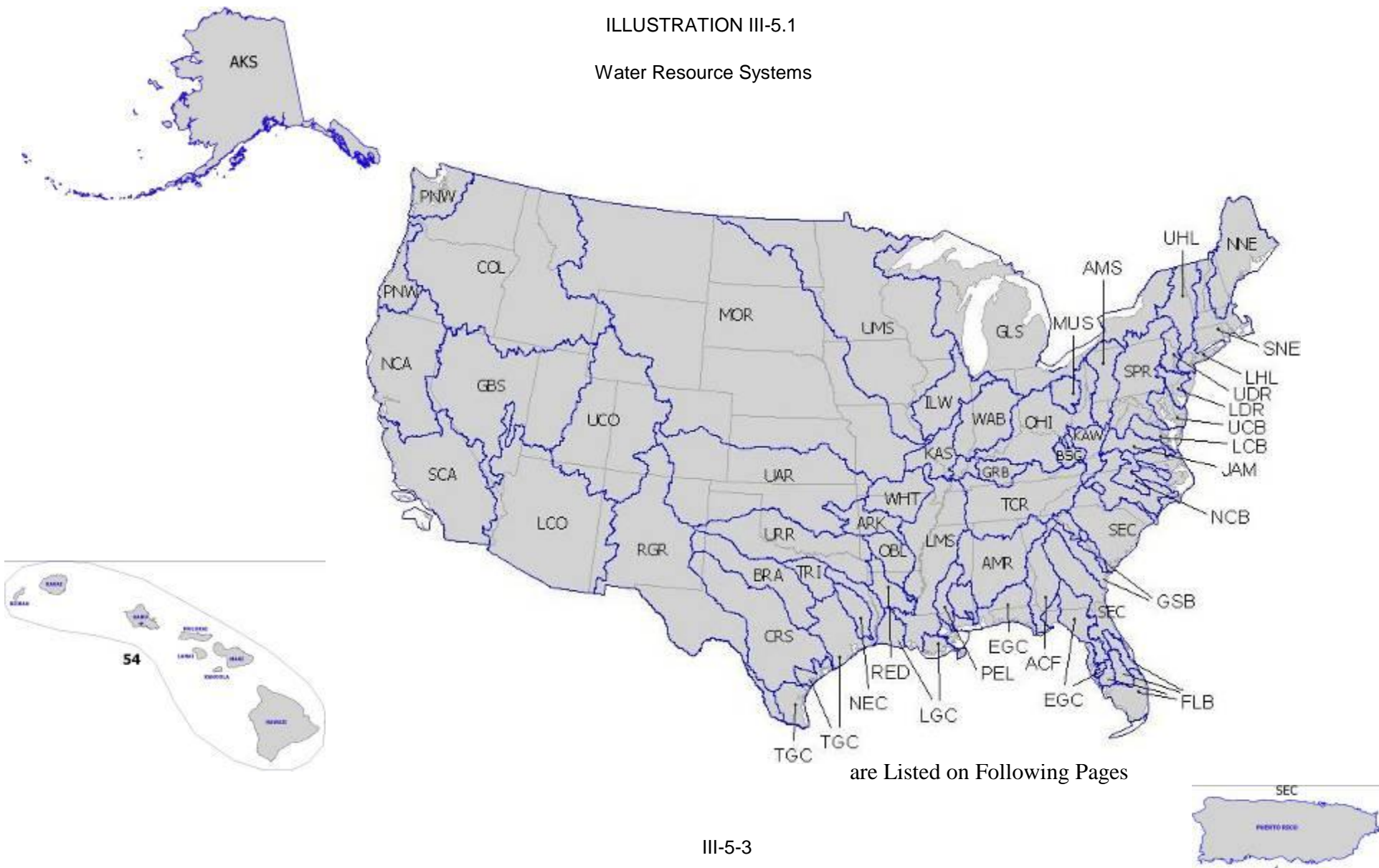
TABLE III-5-1
O&M Systems



Table III - 5-1

ILLUSTRATION III-5.1

Water Resource Systems



are Listed on Following Pages

ILLUSTRATION III-5.2

Major Subordinate Command (MSC)
Supplemental Justification Sheet
Major Maintenance

1. DESCRIPTION OF WORK: (Describe specific items of work to be included in the overall package).
2. JUSTIFICATION: (Provide justification for the total work to be accomplished, including economic evaluation. Quantify benefits when possible. In last paragraph of justification, provide arguments on why the work should be started in the program year, either design or construction; and the impact of not starting the work in the program year. For ongoing work, include the impacts of not continuing the work in the program year. These paragraphs must be in sufficient detail to permit a decision to be made on the investment).
3. ESTIMATED COST AND SCHEDULE: (Provide the basis of the estimated cost, i.e., based on cost of XYZ PROJECT IN FY90 indexed to current price levels, reconnaissance level estimate, e.g. *Design Memorandum D-28 approved 22 January 1993, etc*; and include the amount of contingencies included in the estimate. The cost estimate should be broken down to reflect individual DDRs, procurements, contracts, installations, etc. Schedule dates should be shown only to the month and year, e.g., 11/01, and all dollar amounts in even thousands, i.e., \$10,000 to be shown as 10. The estimate and schedule should include required fund requirements for engineering and design during construction and other related costs for completion of a total package. If contributed funds are required for Corps construction activities, include in cost estimate and add a line to the schedule with minus entries; so that the total line will reflect Total Federal fund requirements by year).

NOTE: This illustration is included to show the additional information required for major maintenance activities. This information will be provided in the format shown in the expanded funding argument field.

ILLUSTRATION III-5.3

MSC O&M Justification Sheet Template



Illustration III-5.3

ILLUSTRATION III-5.4

MSC O&M Justification Sheet Sample



Illustration III-5.4

ANNEX IV

Expenses

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SUB-ANNEX IV-1

Expenses

Applicability

IV-1-1. Foreword. Redesign of the Expenses (E) Program, provides for streamlined, rational, authoritative development by responsible leadership of the Civil Works Program (CWP) Executive Direction and Management (ED&M) Program; compelling defense by responsible leadership before Congress for adequate appropriation of resources for execution of recommended programs; and competent management by responsible leadership of production and resources in execution of the CWP ED&M Program, to the benefit of the Corps, Army and Nation.

IV-1-2. General. This annex provides guidance for development of the E Program part of the CWP ED&M Program of the U. S. Army Corps of Engineers (USACE).

SUB-ANNEX IV-2

Expenses

Program Appropriation Title and Codes

IV-2-1. Program Appropriation Title. The Program appropriation title is “Expenses.”

IV-2-2. Program Treasury Code. In FY14 the Program Treasury Code is 96 2014/2015 3124 (96 is index for Corps of Engineers in Treasury’s Federal Account Symbols and Titles (FAST) manual; 2014/2015 is fiscal year period for which FY14 appropriation is available, based on FY12 Conference Report; 3124 is serial number for the E Program in FAST.

IV-2-3. Program Product Codes. To the extent that they are presently developed, the Product Category/Class/Subclass (CCS) codes of this program are presented in TABLE 3 of the MAIN part of this EC.

SUB-ANNEX IV-3

Expenses

Program Development Guidance

IV-3-1. Program Objective. The objective of the E Program, along with a very small part of the Operation and Maintenance, Army (OMA) Program, is to provide ED&M for USACE. The USACE ED&M Program is accomplished through execution of 5 functions, identified in IV-3-2.

IV-3-2. USACE ED&M Program Functions. The 5 program functions are named below, along with definitions specifically pertinent to the CWP:

a. Command and Control – action by CWP leadership to lead, decide, and direct USACE's CWP operations;

b. Provision of Policy Guidance – action by CWP leadership to guide development of policy for USACE's CWP operations in headquarters, regional MSCs, and SFOAs;

c. Program Management – action by CWP leadership to develop, defend, and execute USACE's CWP, including 8 appropriation programs, namely: the Flood Control, Mississippi River and Tributaries (FC,MR&T) Project; Investigations (I) Program; Construction (C) Program; Operation & Maintenance (O&M) Program; Expenses (E) Program; Regulatory Program (RP); Flood Control and Coastal Emergencies (FC&CE) Program; and Formerly Utilized Sites Remedial Action Program (FUSRAP);

d. National Coordination – action by CWP leadership to coordinate with the Administration, other federal and state agencies, national stakeholders, and other interest groups in development of USACE's CWP policy and guidance and efficient development, defense, and execution of the CWP;

e. Quality Assurance – action by CWP leadership to assure that products of USACE's CWP are of high quality and timely, and executed in strict accordance with law, policy, and guidance.

IV-3-3. CWP ED&M Program Redesign. (For implementation in FY14.)

a. CWP ED&M Program Structure. Redesign of the CWP ED&M Program structure (outline description) provides for:

(1) Describing the program concisely in clear and simple terms of its two different kinds of work, namely: "routine operations" and "initiatives";

(2) Further describing the program in terms of work products, by category, class, and subclass (CCS), which can be prioritized in terms of mission, rather than resources, by element of resource (EOR) or object class (OC), which cannot;

(3) Enabling prioritization of all competing work, based on relative benefits of products of the work and costs of resources required to produce the products, to facilitate: rational development of alternative programs, including the recommended program; justifying passback appeals; and anomaly funding under Continuing Resolution Authorities (CRAs);

(4) Improving basis for compelling defense, and prospect of desired appropriation, based on benefit of products and;

(5) Enabling straightforward determination of the program of the United States Government, appropriated by Congress, using priority of work to add or subtract work and associated funding to a lower- or higher-funded alternative,” respectively, to “fit” the appropriation.

(6) ILLUSTRATION IV-3-3.1 depicts the new CWP ED&M Program Structure (outline description) facilitating accomplishment of the above-described 5-part goal of program structure redesign.

ILLUSTRATION IV-3-3.1
CWP ED&M Program Structure

**FY14 CWP ED&M Program
Structure**

- **Routine Operations** (work of the CWP ED&M Program that is done, year-in, year-out)
 - **Labor Activities**
 - Civilian
 - E Program Work/Products
 - OMA Program Work/Products
 - Military (E Program, only Work/Products)
 - **Non-labor Activities** (E Program, only Work/Products)
 - **Common** (Work/Products done by all offices)
 - Mandatory (Unavoidable short-term)
 - Discretionary (Avoidable short-term)
 - **Unique** (Work/Products done by only some offices)
 - Mandatory (Unavoidable short-term)
 - Discretionary (Avoidable short-term)

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**FY14 CWP ED&M Program
Structure (cont'd)**

- **Initiatives** (new work of CWP ED&M Program to be completed within 3 years)
 - E Program, Only, Work/Products
 - Initiative 1
 - . . .
 - Initiative n
 - E and OMA Programs, Jointly, Work/Products
 - Initiative 1
 - . . .
 - Initiative n

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(7) ILLUSTRATION IV-3-3.2 depicts the new Product Category/Class/Subclass (CCS) Code Structure (system) for use in describing work products for consideration in prioritization.

ILLUSTRATION IV-3-3.2

CWP ED&M Program
Product Category/Class/Subclass (CCS) Code Structure

FY14 CWP ED&M Program Product Category/Class/Subclass (CCS) Code Structure

PRODUCT CODES

Product	Category/Class/Subclass		
Command and Control	A	0	0
Mission-essential task product, a - z	A	A-Z	0
Sub-task product, a - z	A	A-Z	A-Z
Policy Guidance	B	0	0
Mission-essential task product, a - z	B	A-Z	0
Sub-task product, a - z	B	A-Z	A-Z
Program Management	C	0	0
Mission-essential task product, a - z	C	A-Z	0
Sub-task product, a - z	C	A-Z	A-Z
National Coordination	D	0	0
Mission-essential task product, a - z	D	A-Z	0
Sub-task product, a - z	D	A-Z	A-Z
Quality Assurance	E	0	0
Mission-essential task product, a - z	E	A-Z	0
Sub-task product, a - z	E	A-Z	A-Z

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b. CWP ED&M Program Management Organization. Redesign of the CWP ED&M Program Management Organization provides for employing the existing 2012 management organization to:

(1) Ensure that program development is done by leaders of the program at all levels in the existing organization, thereby, ensuring application of authority and best knowledge, ability, and skill in developing, defending, and executing the program.

(2) Identify offices who actually manage the CWP ED&M Program in the field with one of three headquarters groups who actually manage the program at headquarters – the mission directorates, CECW and CEMP, and the Support Group comprising 17 supporting directorates and offices.

(3) Assign offices at all levels who actually manage the program to the three groups – the CECW Group, CEMP Group, and Support Group, to unify, strengthen, and streamline representation.

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(4) The E Program is executed through 18 Program Elements, all except 2 of which – ACE-IT and ULA (See below.) – were specified by Congress in the FY06 Conference Report. 15 Program Elements are organizations, including HQUSACE, 8 Major Subordinate Commands (MSCs), and 6 Separate Field Operating Agencies (SFOAs), discussed next.

(5) The 8 MSCs comprise: the Great Lakes and Rivers Division (LRD), Mississippi River Valley Division (MVD), North Atlantic Division (NAD), Northwestern Division (NWD), Pacific Ocean Division (POD), South Atlantic Division (SAD), South Pacific Division (SPD), and Southwestern Division (SWD).

(6) The 6 SFOAs comprise the following, with their functions in the CWP ED&M Program described briefly:

(a) Army Corps of Engineers – Information Technology (ACE-IT) – providing corporate information management in support of the CWP;

(b) Engineering Research and Development Center (ERDC) – conducting research and analysis in development of the CWP;

(c) Humphreys Engineer Center Support Activity (HECSA) – providing administrative and operational support for HQUSACE, including the CECW Group, CEMP Group, and Support Group led by the Chief of Staff;

(d) Institute for Water Resources (IWR) – conducting research and analysis in development of planning methodologies for the CWP;

(e) USACE Finance Center (UFC) – providing finance and accounting support for the CWP and;

(f) USACE Logistics Activity (ULA) – providing logistics support for the CWP.

(7) The three management groups – the CECW Group, led by the Director of Civil Works; the CEMP Group, led by the Director of Military Programs; and the Support Group, led by the Chief of Staff, play roles in developing, defending, and executing the CWP ED&M Program; however, the CECW Group plays a principal role in accomplishing all three functions and, therefore, is called the “principal group”, of CWP ED&M management organization, while the other 2 groups play supporting roles and are called “non-principal groups”.

(8) ILLUSTRATION IV-3-3.3 depicts the existing CWP ED&M Program Management Organization by Program Elements (adopted without change in the redesign) for use in engaging CWP leadership at all levels in implementation of the above-described 3-part goal of management organization redesign.

(9) ILLUSTRATION IV-3-3.4 depicts the new CWP ED&M Program Management Organization, by Groups for engaging leadership at successive levels, in turn, from bottom up, through the mission directors and Chief of Staff and, ultimately, the Chief of Engineers in implementation of the above-described 3-part goal of management organization redesign.

ILLUSTRATION IV-3-3.3

CWP ED&M Program Management Organization by Program Elements

FY14 CWP ED&M Program Management Organization

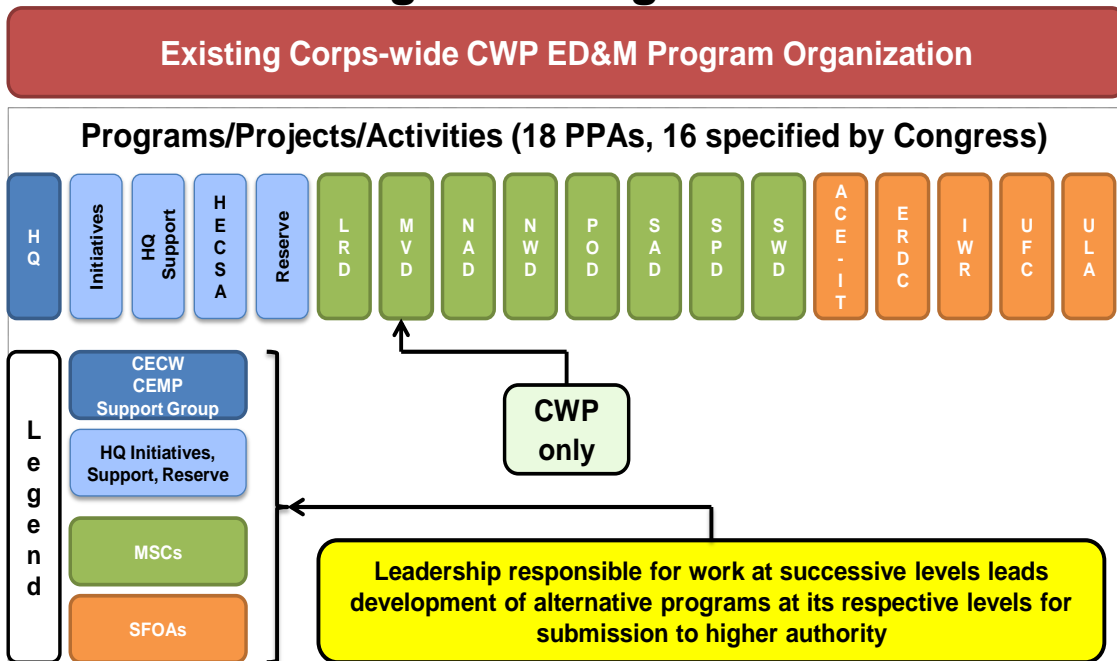
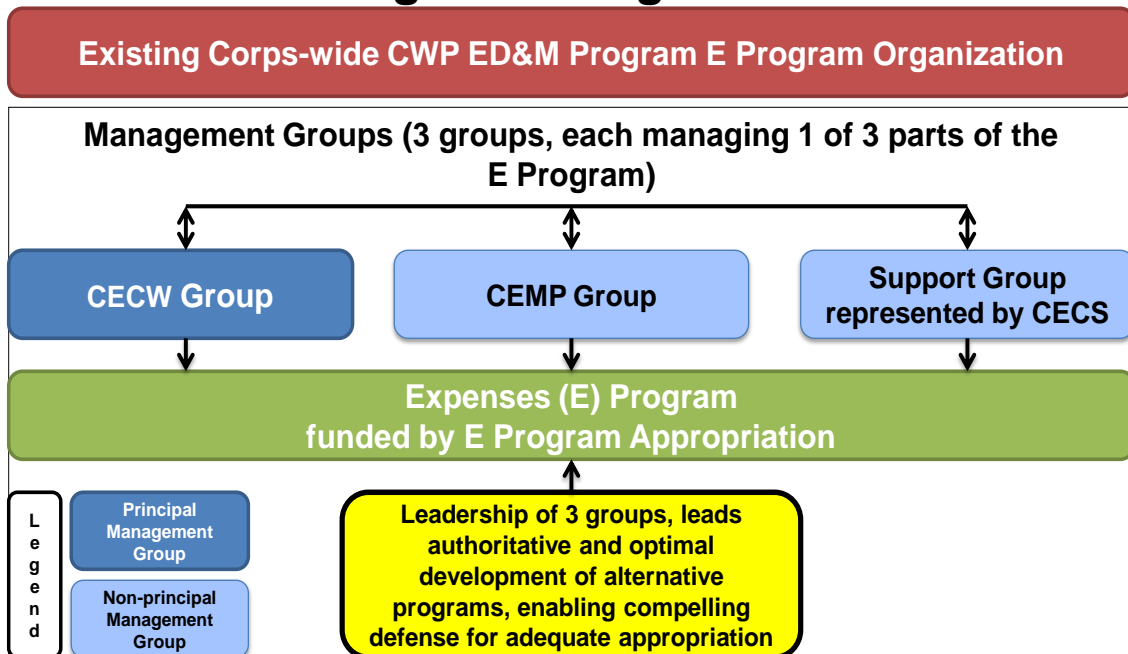


ILLUSTRATION IV-3-3.4

CWP ED&M Program Management Organization by Groups

FY14 E Program Part of CWP ED&M Program Management Organization



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c. CWP ED&M Program Development Processes. Redesign of the CWP ED&M Program Development Processes provides for engaging leadership, from the bottom up, in rational, fully coordinated, authoritative development of alternative CWP ED&M Programs, including the recommended program, requiring that:

(1) leadership responsible for work at successive levels leads development, at its respective levels, of its “own versions” of rational, fully coordinated, authoritative alternative programs, including a recommended program, for submission to higher authority

(2) leadership responsible the CWP ED&M Program leads development of “USACE’s version” of rational, fully coordinated, authoritative alternative programs, including a recommended program, for submission to ASA(CW) and OMB, and easily defensible before Congress, enabling compelling defense for adequate appropriation

- (3) To these ends, required program development processes include, in order of application:
- (a) screening proposed work for proper assignment, per ILLUSTRATION IV-3-3.5;
 - (b) “parsing (breaking down) descriptions of all work and associated products into product categories, classes, and subclasses, as discussed in IV-4-1.c. and ILLUSTRATION IV-3-3.6, and shown by example in ILLUSTRATION IV-4-1.1, the Production Data Workbook (PDW), Sheet 1;
 - (c) determining “balanced program” funding ratios between E Program parts, as discussed in ILLUSTRATION IV-4-1.b (2), and shown by example in ILLUSTRATION IV 1.1, PDW, Sheet 3;
 - (d) developing balanced capability programs, as discussed in IV-4-1e.;
 - (e) prioritizing and funding Routine Operations, including Labor Activities, and Initiatives, through leadership from the bottom up, as discussed in ILLUSTRATION IV-4-1.e., and shown by example in ILLUSTRATION IV-3-3.7 and the PDW, Sheets 13, 7 and 9.
 - (f) prioritizing bands of products by decrementing capability program funding, as discussed in ILLUSTRATION IV-4-1.f. and shown by example in the PDW, Sheet 11 ;
 - (g) developing alternative programs, including the recommended program, by decrementing capability program funding, as discussed in ILLUSTRATION IV-4-1.g. and h. and shown by example in the PDW, Sheets 11 and 13;
 - (h) determining proper cost-shares for jointly funded work of the Recommended Program; per ILLUSTRATION IV-3-3.8;
 - (i) developing the E Program of the President’s Program for presentation in the E Program justification statement, as discussed in IV-4-1.i.
 - (j) developing the E Program of the United States Government for execution, as discussed in IV-4-1.j.
 - (k) scheduling work of and resources for, the E Program of the United States Government, as discussed in ILLUSTRATION IV-4-1.j and;
 - (l) allocating resources – manpower, strengths and specialties, and funding – for execution of the E Program of the United States Government, as discussed in ILLUSTRATION IV-4-2.
- (4) Application of each of these 10 processes is discussed in order in SUB-ANNEX IV-4. Examples of data you must provide are presented on separate sheets in the PRODUCTION DATA WORKBOOK, each sheet followed by a sheet with the blank form you must complete to provide the data.

ILLUSTRATION IV-3-3.5

CWP ED&M Program Development Processes
Assignment of CWP ED&M Program Work

FY14 CWP ED&M Program Process for Assignment of Work

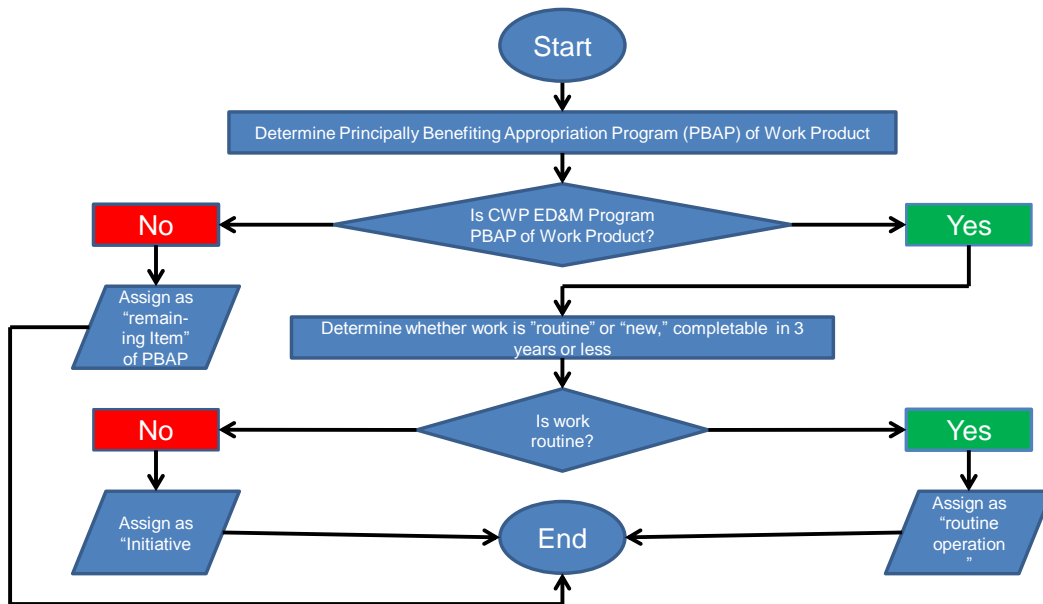


ILLUSTRATION IV-3-3.6

CWP ED&M Program Development Processes Instruction for Development of CWP ED&M Program Product CCS Code

The process is accomplished for any office of interest by:

- collecting all USAMAA Form 2 “function” or METs descriptions for the office;
- parsing (breaking down) the USAMAA function or METs descriptions into one or more of the 5 functions of the E Program, which E Program function names represent the only product categories of the E Program, as discussed in IV-4-1c.;
- for each of the 5 E Program categories, parsing the descriptions into classes of work/products that are generally more alike, and name each of the classes, meaningfully, yet, succinctly;
- for each of the classes, parsing the descriptions into subclasses of work/products that are even more alike, and name each of the sub-classes, meaningfully, yet, succinctly and;
- updating the code over time, refining the descriptions of work/products so that, at the sub-class level, descriptions can be “translated” easily into relative value of products described and resources required to produce them.

ILLUSTRATION IV-3-3.7

CWP ED&M Program Development Processes Instruction for Prioritization and Funding of Routine Operations, including Labor Activities and Initiatives - Example

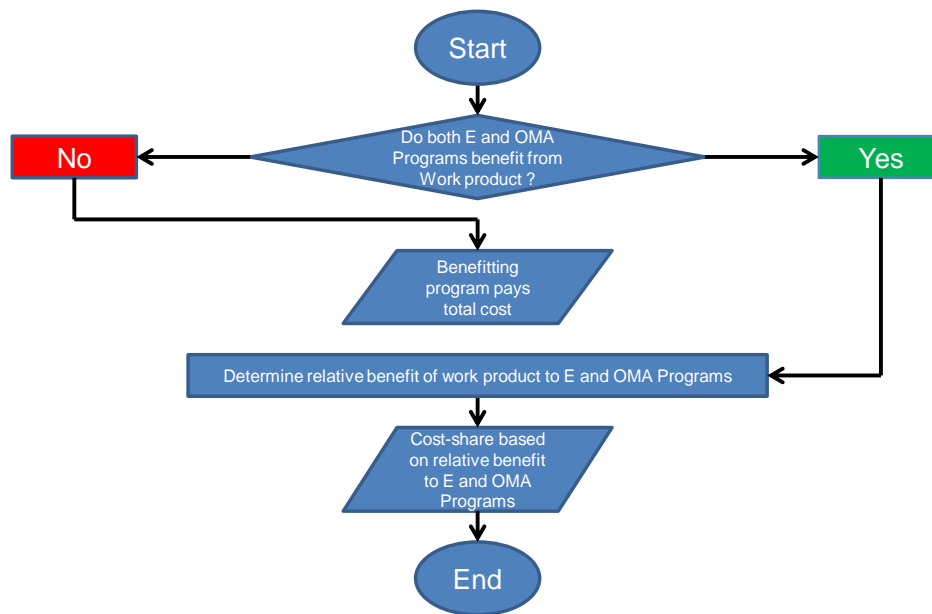
The process for prioritizing and requesting funding for HQUSACE Unique Mission Requirements (UMRs) requiring E and E/OMA Program funding, is shown below. This very same process pertains to Routine Operations and Initiatives.

- CECW-ID publishes CECW's "Program Development Guidance" - EC 11-2-202, 31 Mar.
- Per guidance of the EC (for FY14 and later), CECW Division deputies justify, prioritize, and request funding for their UMRs and submit to Division Chiefs for signature.
- CECW Division Chiefs review, approve, sign, and submit their UMRs to CECW-IN.
- CECW-IN schedules a meeting of all CECW Division deputies to prioritize and recommend funding across CECW.
- CECW Division deputies prioritize and recommend funding across all CECW UMRs, and submit to CECW-IN.
- CECW-IN schedules a meeting of all CECW Division Chiefs and the CECW Director to approve priorities and funding across CECW.
- CECW Director reviews, approves CECW Group priorities and funding.
- CECW-IN schedules a meeting of all CECW Division deputies and counterpart deputies of the CEMP and Support Groups to prioritize and recommend funding for HQUSACE UMRs with E Program funding, including those of the CECW Group, across HQUSACE.
- HQUSACE deputies prioritize and recommend funding for E-Program-funded UMRs across HQUSACE and submit to CERM-B.
- CERM-B schedules a meeting of all CECW Division Chiefs and leaders of the three HQUSACE Management Groups - CECW-ZB, CEMP-ZB, and CECS – to review, approve priorities and recommended funding across HQUSACE.
- Leaders of the three HQUSACE Management Groups approve priorities, recommended funding across HQUSACE, and submit to CECG.
- CECG submits to CERM-B.
- CERM-B submits to CEHEC-RM-B for funding allocations.

ILLUSTRATION IV-3-3.8

CWP ED&M Program Development Processes
Cost-sharing of Work

FY14 CWP ED&M Program Process for Cost-sharing of Work



SUB-ANNEX IV-4

Expenses

Production Data Development and Input Instructions

IV-4-1. CWP ED&M Program Production Data.

a. Required Data:

- (1) mission-essential tasks (METs)
- (2) CCS Code
- (3) descriptions of products by CCS Code
- (4) product priorities / task priorities
- (5) balanced program funding ratios
 - (a) E Program Labor / Non-labor activities: 65%/35%?
 - (b) Routine Operations / Initiatives: 97%/3%?
 - (c) Routine Operations Labor / Non-labor Activities: 65%/32%?
 - (d) Routine Operations Labor Civilian / Military Activities: 95%/5%?
 - (e) Routine Operations Labor Civilian E / OMA Program Activities: 90%/10%?
 - (f) Routine Operations Non-labor Common / Unique Activities: 20%/80%?
 - (g) Routine Operations Common Mandatory / Discretionary Activities: 40%/60%?
 - (h) Routine Operations Unique Mandatory / Discretionary Activities: 80%/20%?
- (6) capability program
- (7) product priority bands
- (8) alternative programs, including:
 - (a) recommended program
 - (b) ceiling program
 - (c) decrement programs (e.g., 5%, 10%)
- (9) recommended program benefit:
 - (a) outcomes of products
 - (b) benefit of outcomes to:
 - CWP mission
 - Army
 - Nation
- (10) recommended program execution schedules
 - (a) production – in milestones
 - (b) funding – in expenditures
- (11) required manpower specialties and strengths

- (12) temporary duty
- (13) training
- (14) plant, equipment, and material

b. Basis for Development of Required Data. Data will be derived from validated manpower requirement data and “balanced funding” between all parts of the CWP ED&M Program E Program, including routine operations and initiatives, labor and non-labor routine activities, civilian and military labor activities, common and unique non-labor activities, mandatory and discretionary common non-labor activities, and mandatory and discretionary unique non-labor activities, for optimal program execution.

(1) Validated Manpower Requirement Data. Currently, there are two suitable sources for validated CWP ED&M manpower requirement data, specifically:

(a) the FY11 U. S. Army Manpower Assessment Agency (USAMAA) surveys descriptions of “functions,” for most offices and;

(b) the latest office Mission-essential Tasks (METs), for offices not covered by FY11 USAMAA surveys.

(2) Balanced Funding. Efficient, effective operation of the E Program, Corps-wide, requires a labor / non-labor activities funding ratio of 65%/35% - 65% of total funding for labor activities, and 35% for non-labor activities, including initiatives. This ratio will be used, along with other ratios shown below, in developing balanced programs for all offices. These ratios will be revisited annually to determine whether they should be adjusted based on further experience in program execution.

- (3) E Program Labor / Non-labor activities: 65%/35%
- (4) Routine Operations / Initiatives: 97%/3%
- (5) Routine Operations Labor / Non-labor Activities: 65%/32%
- (6) Routine Operations Labor Civilian / Military Activities: 95%/5%
- (7) Routine Operations Labor Civilian E / OMA Program Activities: 90%/10%
- (8) Routine Operations Non-labor Common / Unique Activities: 20%/80%
- (9) Routine Operations Common Mandatory / Discretionary Activities: 40%/60%
- (10) Routine Operations Unique Mandatory / Discretionary Activities: 80%/20%

c. Development of Product CCS Code. This process refines descriptions of products of USAMAA functions and METs. At the subclass level, descriptions can be “translated” directly into relative benefit of products described, and costs of resources required to produce them – essential to our ultimate goal of standardization and automation in program development.

(1) Manpower Survey “Functions”. “The FY11 USAMAA surveys describe, as “functions”, the mission-essential tasks of each office surveyed, and products of the tasks. The descriptions of products

comprise mixes of categories, classes, and sub-classes, easily distinguishable in terms of scope – from broad to narrow, or general to specific, respectively.

(2) Mission Essential Tasks (METs). For offices not covered by the FY11 USAMAA surveys, METs describe products of the tasks. As with the USAMAA functions, the descriptions of products comprise mixes of categories, classes, and sub-classes, easily distinguishable in terms of scope – from broad to narrow, or general to specific, respectively.

(3) Parsing of “Functions”/METs. Parse (break down) “functions and functional descriptions” of the FY11 USAMAA survey “functions,” or non-survey METs, as follows:

(a) C (categories). All tasks and associated products described as “functions and functional descriptions” in the recent USAMAA manpower survey, or, for offices not surveyed, work and products of METs of an office are “categorized” by separating unlike work and products of all tasks into groups of like work and products aligned with one or more of the 5 functions of the CWP ED&M Program, cited in IV-3-2; and assigning the groups to the one or more of the 5 functions with which they are most closely aligned.

(b) C (classes). Tasks and associated products assigned to each of the 5 categories, cited above, are “classified” by separating unlike work and products of each category into groups of like work and products, and assigning the groups to one or more separate A – Z class(es) to which they are most closely aligned.

(c) S (sub-classes). Tasks and associated products assigned to each of the classes are “sub-classified” by separating unlike work and products of each class into groups of like work and products, and assigning the groups to one or more separate A – Z sub-classes to which they are most closely aligned.

(d) ILLUSTRATION IV-4-1.1 - the PRODUCTION DATA WORKBOOK, Sheet 1 - provides an example of parsing USAMAA “functions and functional descriptions” into Product CCS Code.

d. Development of Balanced Capability Program. For any office, manpower required to perform all tasks of the FY11 USAMAA survey “functions” and non-survey office METs, along with non-labor activities also required to perform those functions and METs, and associated funding constitute the balanced capability program for that office. As stated in paragraph IV-4-1.b.(2), balanced funding for labor and non-labor activities of the E Program requires an allocation ratio of 65%/35% and, for routine operations and Initiatives, an allocation ratio of 97% / 3%. Based on the FY11 USAMAA survey “functions” and non-survey METs for E Program offices; the FY14 E Program manpower requirement of 917 full-time equivalents (FTEs) - manyears; an FY14 program-wide manyear cost of \$155K; and the funding ratios of 65%/35% and 97%/3%, cited above, FY14 E Program capability program funding is \$219M, including \$212M for routine operations and \$7M for initiatives, as shown below:

$$\begin{aligned}(917 \text{ FTEs} \times \$155,000/\text{FTE}) / 0.65 &= \$219\text{M}; \\ \$219\text{M} \times 0.97 &= \$212\text{M}; \\ \$219\text{M} \times 0.03 &= \$7\text{M}.\end{aligned}$$

This amount of funding would provide for accomplishing all mission-essential work, plus initiatives, which is all work, of the E Program.

e. Prioritization and Funding of Routine Operations, including Labor Activities and Initiatives. All Routine Operations and Initiatives are prioritized and funded through a process involving successive levels of leadership, from those responsible for execution, through the mission directors and Chief of Staff, at the top. Factors to be considered in prioritization and funding of all activities, and associated questions to be answered in consideration of those factors, comprise the following, in order:

(1) perceived benefit/cost ratio of the set of products in the activity (Through this and subsequent annual data calls, the CWP ED&M Program leadership will determine perceived benefit/cost ratios of individual products of the E Program for all products of the program; however, generally, a set of products of varying priority is produced through any given activity. Given this reality, barring a very laborious rigorous priority allocation process for any one activity, benefit/cost ratios of the set of products must be perceived by decision-makers from the individual priorities of the set. Priorities of the individual products, identified by Product CCS Code, will be made available for that purpose in all drills to prioritize and fund Routine Operations, including Labor Activities, and Initiatives.) In light of the above discussion, is the perceived ratio for the product set lesser than that of any set listed above it in a priority list, and greater than that of any set listed below it? If so, the set is properly prioritized; if not, it must be moved in the list to make it so.);

(2) urgency of starting production of the product in this budget cycle (Could starting production, and associated resourcing, be postponed to a later budget cycle without significant consequence? If so, consider doing it.); and

(3) permissible time period (window) for producing the product (Could the window be “stretched” without significant consequence?).

(4) ILLUSTRATION IV-3-3.8 shows an example of the process for prioritization and funding of HQUSACE unique mission requirements. The process employs leadership at successive levels, from the bottom up, in cooperative, collaborative, and authoritative decision-making, recommendation, and approval of work and resourcing to accomplish it.

f. Development of Product Priority Bands.

(1) Definition of Product Priority Bands. Product priority bands are lists of products and associated tasks whose benefit/cost ratios are perceived, by persons knowledgeable of operations of interest, to be closely comparable, so that, any product or task within any given band could be substituted, without qualm, for any other product or task within the band, for elimination, in times of limited resources, from the program including them.

(2) Creating Product Priority Bands. Product Priority Bands are created by identifying what products and associated tasks would be cut from the Capability Program if its funding were cut. Through decrementing Capability Program funding, priorities of products and associated tasks are determined, as desired, as discussed next.

(3) Work providing least benefit/cost products would be cut first. Leadership, with recommendations of staff, will decide which work to cut. Through successive decrements, relative priorities of all work can be determined, de facto. The sizes of decrements will determine the sizes of product priority bands. Initially, decrements of 3% will be used. This rate will be revisited annually to determine whether it should be adjusted based on further experience in program development.

g. Development of Alternative Programs. The usual set of alternative programs includes the Capability Program, Recommended Program, Presidential Policy (Ceiling) Program, and 5% and 10% Decrement Programs. The Decrement Programs are always with respect to the Ceiling Program. Example funding for the five programs is shown next:

- (1) Capability Program - \$219M
- (2) Recommended Program – \$195M;
- (3) Presidential Policy (Ceiling) Program - \$185M;
- (4) 5% Decrement Program - \$176Mm; and
- (5) 10% Decrement Program - \$167M.

These and any other programs will be determined as decremented versions of the capability program and applicable priority bands.

h. Identification of Recommended Program. In consideration of the CWP mission, laws; national priorities, goals, and objectives; the Corps' campaign plan; the CWP's strategic plan; and CWP policy and guidance, leadership will decide which of the decremented E Program capability versions, as may be modified, it wants to recommend in order to maximize benefit of:

- (1) products; and
- (2) outcomes of products to:
 - (a) the CWP mission;
 - (b) Army; and
 - (c) Nation.

i. Development of the President's Program. The Corps briefs its recommended Program to the Assistant Secretary of the Army (Civil Works) (ASA(CW)) and the Office of Management and Budget (OMB). Based on critiques, decisions, and directions of ASA(CW) and OMB, the Corps finalizes the E Program of the Executive Branch - President's Program - for presentation in its justification statement for submission to Congress on or about the first Monday in February.

j. Development of the Program of the United States Government. Once Congress appropriates funding for the program of the United States Government, and the President signs, the three management organization groups - the CECW Group, CEMP Group, and Support Group - determine the E Program of the United States Government, using priority of work to add or subtract work and associated funding to a lower- or higher-funded alternative," respectively, to "fit" the appropriation.

k. Development of Execution Schedules. Once the E Program of the United States Government is identified, the work (production) and resource (consumption) schedules for the program year are developed for all routine operations activities and initiatives. For each activity, the schedules are juxtaposed in one chart, conveniently separated by choice of scale for milestones and funding on separate sides of the chart. Beneath the charts are synchronized performance schedules in "stoplight" colors representing standard deviation ranges. The charts will be used in conjunction with "business rules" based on the two mantras "Say what you're going to do, and do it;" and "Tell me what I'm getting for my money;" to manage both production and consumption. The two types of schedules are discussed further below.

(1) Production Schedules– in Milestones. These schedules will be developed for each activity in terms of from 5 to 10 milestones, no more, no fewer, representing completion of some relatively

significant step in completing planned work for the year. The milestones will be as evenly distributed throughout the year as practicable and described concisely, in terms of products, on the reverse side of the chart. These, or modifications, will be used during execution, along with business rules, to manage E Program production at the lowest levels practicable.

(2) Consumption Schedules – in Expenditures. These schedules will be developed in terms of accrued expenditures consistent with completing the 5 - 10 production milestones. These, or modifications, will be used during execution, along with business rules, to manage E Program resource use at the lowest levels practicable.

(3) Business Rules. These rules for program execution management describe actions to be taken following unacceptable deviation from schedules. They will be discussed in the next edition of CECW's Execution EC.

I. CWP ED&M Program Production Data. The CWP ED&M Program comprises E and OMA Program parts, ILLUSTRATION IV-4-2.1 shows the CWP ED&M Program resource requirements by those parts. Only the E Program part is defended by justification statement and hearings before Congress for the recommended appropriation. The OMA part is funded by Army through the Program Objective Memorandum (POM) process.

(1) Production Data Workbook. Submit production data in even-numbered sheets of the Production Data Workbook, below. Specifically, provide required data by completing the blank forms of Sheets 2, 4, 6, 8, 10, and 12. Each of these forms follows an example of required data in Sheets 1, 3, 5, 7, 9, and 11. Sheet 13 shows application of instruction shown in ILLUSTRATION IV-3-3.7, through the 7th bullet. Discussion and instructions for developing the data are provided in order throughout the Annex.

(2) Submission Schedule. Submit production data according to the schedule shown for the E Program in TABLE 2 of the Main Part of the EC.

ILLUSTRATION IV-4-1.1

Production Data Workbook



ILLUSTRATION
IV-4-1.1

IV-4-2. CWP ED&M Program Resources Data.

a. Program and Financing. The E Program reflects Command Priorities and Budget Guidance, Compatible with priorities, It includes new initiatives approved by the Chief of Engineers' and/or directed by Assistant Secretary of Army for Civil Works (ASA(CW)); Office of Management and Budget (OMB); and Congress. Further program formulation for FY14 will be developed based on guidance issued by CERM. Requirements will be submitted to CERM-B in accordance with the guidance and specified formats issued by CERM-B memorandum of 2 March 12, with supporting data as reflected on the spreadsheet in ILLUSTRATION IV-4-2.1.

b. Audit costs formerly budgeted through the E Program will be funded through the Revolving Fund.

c. Labor Requirements and Funding.

(1) Labor Requirements. Estimates of labor requirements for Program Year (PY) (2014) will reflect the most efficient utilization of personnel necessary to achieve the program objective. Staffing will be at the allocated level published in the CCG. Labor estimates for PY (2013) will be at the allocated level of 917 and PY+2 (2015) will be at the 2012 Future Force authorized and required (full staffing) level of 997 FTEs.

(2) Labor Funding. Funding requests for PY will include base labor cost as of 1 Oct, PY-1 (2012), plus projected inflation rates. The rates will reflect the national and locality pay raises, plus agency contributions for employee benefits. In preparing estimates for overtime, analyze the use of overtime to ensure it is prudent and efficient. Explore all reasonable alternatives to overtime, such as flexible scheduling. Ensure approval authority, monitoring, and audit procedures are in place to avoid overtime abuse. Total labor funding requirements includes locality, cost of living increase (COLA), overtime, awards and estimated pay raise. Costs for Expenses-funded military/uniformed-officers will be based on the DOD Military Personnel Composite Standard Pay and Reimbursement Rate schedule. Total labor funding will be fenced and provided for authorized FTE. Hire lag funding can be used to support details and developmental assignments due to unfilled vacancies, PCS, and costs for the Student Educational Employment Program.

(3) Non-labor Requirements and Funding. Non-labor requirements will be submitted as reflected in ILLUSTRATION IV-2.1. Non-labor requirements are separated into Mandatory and Discretionary. Specific guidance on how to budget for non-labor requirements, such as travel, training, AIS costs will be outlined in the annual budget data call memorandum.

d. Supporting Data. The PY Expenses Program budget submission will be comprised of requirement build, specific FTE by name and salary, and details on contractual support to include justification by object class. The Expenses program manager will develop multiple program options based upon OMB and ASA(CW) guidance, and field data listed above. These will include a 'ceiling' program which will be submitted to reflect no more than the amount needed to maintain "current services" as compared to the FY12 budget. A second 'Recommended' program will be developed to accomplish performance targets over five years.

e. Submission Requirements. Supporting data, described above, will be submitted by electronic mail to CERM-BI (Attention: Gloria Bell). If there are any problems complying with these submission requirements, contact Mrs. Bell at 202-761-1822.

f. Prior Years Funds. For Expenses funds, the CEFMS "Responsible Employee" for each respective Work Item (WI) will ensure that UDOs are reviewed on a monthly basis. During an unliquidated obligations (ULO) review, decisions will be made on whether an action should or should not be liquidated; i.e., funds obligated on a contract PR&C or travel order where work is complete or travel voucher is settled. At that time, the unliquidated funds will be de-obligated.

(1) Although Expenses appropriations provide no-year funding, every effort should be made to liquidate funding in the year of appropriation. Barring sufficient justification to maintain ULO balances, RM will revoke balances more than 24 months old for both routine operations and Campaign Accounts.

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Campaign Account revocations will be in coordination with Goal Champions, CEFMS Responsible Employees, and RM. Revoked funds will be reprogrammed and distributed equitably to cover fiscal years in the USACE Consolidated Command Guidance (CCG), last updated May 2010, the Command Priorities and Budget Guidance, as well as any new initiatives approved by the Chief of Engineers' and/or directed by Assistant Secretary of Army for Civil Works (ASA(CW))/Office of Management and Budget (OMB)/Congress.

(2) Further program formulation for FY13/14/15 will be developed based on guidance issued by HQ Resource Management. Requirements will be submitted to Resource Management in the specified format with supporting data as reflected on the spreadsheet in ILLUSTRATION IV-4-2.1.

g. Audit costs formally budgeted through the Expense Account will be funded through the Revolving Fund Account.

h. Labor Requirements and Funding. Estimates of labor requirements for Program Year (PY) (2013) will reflect the most efficient utilization of personnel necessary to achieve the program objective. Staffing will be at the allocated level published in the CCG. Labor estimates for PY (2013) will be at the allocated level of 917 and PY+2 (2015) will be at the 2012 Future Force authorized and required (full staffing) level of 997 FTEs.

ILLUSTRATION IV-4-2.1

ED&M Funding Summary



Illustration IV - 4 -
2.1

ANNEX V

Revolving Fund
Plant Replacement and Improvement Program (PRIP)

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ANNEX V

Plant, Revolving Fund

Plant Replacement and Improvement Program (PRIP)

V-1. Purpose and Scope. This annex provides policy and general procedural guidance for Plant Replacement and Improvement Program (PRIP) development.

a. To provide a uniform approach for program development and justification, the various plant items have been grouped into categories. Guidance for the electronic transmission of automated data for submittal of limited program recommendations is contained in the 1130 series of Engineer Regulations (ERs). Procedures for preparing input, for generating these reports, and for updating data are also included in the ER 1130 series. From time to time, additional detailed guidance will be provided by CERM-B in supplemental memoranda.

b. Both large and small projects are reviewed by the HQ Prioritization Group which makes recommendations to the Senior Program Budget Advisory Committee regarding inclusion in the program. Good planning dictates that justification, economic analysis, estimates, and other submission materials are prepared well in advance of this budget review, since it is only one year away from project execution. Submitting projects outside the normal budget cycle is discouraged except under extraordinary circumstances.

V-2. Program Development Concepts.

a. Categories. All plant items should be identified by category. Detailed definitions for the categories and subcategories can be found in Annex G of ER 37-1-29, Financial Administration, Financial Management of Capital Investments. The categories and subcategories authorized for use with this program submission are in TABLE 3 of the MAIN part of the EC.

b. Major and Minor Items. For programming purposes all items of plant will be classified as either major or minor items. Major Items will be further classified as either new or continuing items.

(1) Major Items. New Major Items consist of those items which exceed HQUSACE authority and which require submittal through the Assistant Secretary of the Army (CW) to the Office of Management and Budget (OMB) and the Congressional Committees on Appropriations for concurrence. The limit of Chief of Engineers authority is \$5,000,000. Continuing Major Items consist of those acquisitions costing more than \$5,000,000, which were previously submitted to and concurred in by OMB; and authorized by the Congressional committees. An update shall be submitted on all continuing major items with scheduled obligations in the PY. Continuing Major Items with cost increases of 20% or more require re-authorization. Documentation to support the increase will be submitted along with an updated Economic Analysis. In the absence of Congressional action on the current year PRIP budget request, the President's current year program will be used for planning purposes with the assumption that the program request for continuing items and new starts will be enacted by 1 October of the current year. In the case that appropriations are not made by the Congress, but that a continuing resolution is instituted, major item new start projects will not be executed until full year appropriations are enacted.

(2) Minor Items. For the PY, minor items are those items which exceed the capitalization threshold of \$250,000 but which do not exceed the Chief of Engineers authority level.

V-3. Program and Budget Guidance.

a. Requirements. Major Subordinate Command (MSC) Commanders will develop and submit a total PRIP for their command to include district requirements. This will be submitted yearly in accordance with CERM-B guidance provided separately. Tabulation of program requirements will reflect the total MSC program and will show both MSC and district priorities for each item of plant. Each item of plant (major and minor) shall be submitted with full justification. This justification shall be submitted on ENG Form 4613-R for major items and ENG Form 4943-R for minor items (see ILLUSTRATION V-1.1). In addition, major item new starts proposed for the PY shall be submitted in accordance with ER 37-1-29 and are to be accompanied by economic and affordability analyses. Cost estimates and obligation plans should be provided for all new projects and reviewed and updated annually for continuing projects and projects on hold awaiting Congressional authorization using the form in ILLUSTRATION V-1.3. A five year PRIP plan will be submitted annually, showing the current year, the program year, and the follow- on three out-years using ENG Form 1978-R or an approved electronic Format (see ILLUSTRATION V-1.2). The-PRIP plan shall be updated only whenever significant changes occur. A copy of the update and changes shall be forwarded to CERM-B.

b. Out –of-Cycle Requests. Out-of-cycle requests and notifications for project increases of greater than 20% that require Congressional notification and approval must be kept to a minimum. Out-of-cycle requests will only be considered if it is of an emergency nature or has extraordinary circumstances. Out-of cycle submissions that are a result of poor planning or failure to update during the regular yearly budget submission will not be approved for funding until the next yearly budget cycle. A five year PRIP plan will be submitted annually, showing the current year, the program year, and the follow- on three out-years using ENG Form 1978-R or an approved electronic Format (see ILLUSTRATION V-1.2). The-PRIP plan shall be updated only whenever significant changes occur. A copy of the update and changes shall be forwarded to CERM-B.

V-4. Submission Requirements and Dates. See TABLE 2 of the MAIN part of this EC.

ILLUSTRATION V-1.1

ENG Forms 4613-R and 4943-R



Illustration V - 1.1

ILLUSTRATION V-1.2

Five Year Plan



ILLUSTRATION V-1.2

ILLUSTRATION V-1.3

Obligation Plan



Illustration V - 1.3

ANNEX VI

Automation Program

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ANNEX VI

Automation Program

VI-1. Background. House Report 103-135, June 17, 1993, accompanying the Energy and Water Development Appropriations Act, 1994 (P.L. 104-46), directs the Corps to "provide separate and distinct data for automation costs" in future program requests. The basis for this request is the Committee's belief that "the cost attributable to the development and implementation of automated programs of the Corps of Engineers is entirely unreasonable." In accordance with this direction, the Civil Works Directorate provides Congress with a display of estimated automation costs with its annual program submissions.

VI-2. Program Development Concepts. For PY the Corps will provide a display similar to that of PY-1, organizing CW automation costs according to the Programs for major investments.

a. The Programmatic management of major IT investment enables the Corps to achieve greater efficiencies within these investments. The programs are:

- (1) Financial Management Services Program
- (2) Asset Management Services Program
- (3) Emergency Preparedness and Response Program
- (4) Business Management Tools Program
- (5) Acquisition Services Program
- (6) Science and Engineering Technology Program
- (7) Real Estate Management Program
- (8) IT Infrastructure and Office Automation Program

b. Additionally, distinguish between items proposed for PRIP acquisition (i. e., items supporting more than one project or program and costing more than \$250,000), also displayed under the Revolving Fund section of the program; and items costing less than \$250,000, and expensed, or acquired using specific study, project or program funds.

VI-3. Program and Budget Guidance. Information Technology Investment Portfolio System (ITIPS) must be maintained up-to-date and reflect your best estimate of what actual requirements will be since it is the data source for the estimate of our automation costs being reported to Congress. The PRIP Five-Year Plan remains primarily a planning tool, but since the data in it is used to prepare our automation costs estimate it is important that it too reflect your best estimate of what actual requirements will be. Justifications to support PY PRIP requirements in plan are to be submitted with the PRIP budget submittal per separate guidance provided by CERM-B. Refer to ER 37-1-29 and Annex V of this EC for instructions for preparing, justifying and submitting PRIP budget requirements.

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SPECIAL NOTE FOR AUTOMATED ENGINEERING TOOLS (ITIPS classification). The Automated Engineering Tools (AET) classification represents an aggregation of field-level initiatives of individual offices throughout USACE for procurement and support of AIS products in support of assigned technical functions. Nearly three-quarters of this funding item is identified for Computer Aided Design (CAD) and Geographic Information System (GIS) tools. The remainder includes surveying, mapping, global positioning systems, data management, and remote lock and dam operating systems. AET represents the largest single cost item under the Science and Engineering Technology Program, approximately \$40M USACE-wide in the PY. Particular attention should be paid to the accuracy of this line item in the update of ITIPS records. These numbers will be utilized to better define the magnitude of our Science and Engineering (S&E) tools investments as part of the ongoing USACE efforts to improve the support of S&E.

VI-4. Submission Dates and Requirements.

a. Information Technology Investment Portfolio System (ITIPS). In the case of the ITIPS, which is updated annually as part of the Corps' Capital Planning and Investment Management Process (CPIM), the most important data elements for the Civil Works automation budget are contained in the PY Requirements Tabs (Direct, Site, and PRIP) for development, modernization, operations and support. Although ITIPS is continually available for updating, the Requirements Tabs (for financial data input) are only open during the 1st quarter of the FY to coincide with the start of the CPIM process. Ensure that the ITIPS is kept up to date and all cost data are entered during the aforementioned update period. (In accordance with ER 25-1-2, the functional proponent has Life Cycle Management of Information Systems (LCMIS) responsibility for any Automated Information System AIS. Although this party may not be responsible for entering data into the ITIPS, it is responsible for the accuracy of the data.). More information about the CPIM process is available in ER 25-1-106.

b. PRIP Five-Year Plan. A new PRIP Five-Year Plan must be submitted annually per separate guidance provided by CERM-B. The annual PRIP Five-Year Plan must contain accurate PY estimates for Categories 80 (Software) and 90 (Hardware). Refer to ER 37-1-29 and Annex V of this EC for instructions for preparing the PRIP Five-Year Plan and update submission requirements.

GLOSSARY

Terms and Abbreviations

General. This glossary contains definitions of terms and OFA codes used in the budget development process. **Note that due to the extent of some definitions that are specific to major accounts (GI, CG, O&M) or Business Lines, many definitions have been retained in the Annexes/Appendices of this EC.**

Definitions of budget increments are located in this EC as follows:

- Investigations – ANNEX I, paragraph I-1-4.b.
- Construction (including MR&T) – ANNEX II, paragraph II-2-3.
- Operation and Maintenance – ANNEX III, paragraph III-2-12.e.
- Ecosystem Restoration – Appendix C, paragraph C-2-10.
- Environmental Stewardship – Appendix C, paragraph C-3-5.
- FUSRAP – Appendix C, paragraph C-4-8.

Activity: A component of work performed during the course of a project. An activity could be a process (e.g. collection of data) or lead to a deliverable (write a report). Activities are the building blocks of the OFA system – they have assigned durations, resources, and relationships.

Acronyms. Acronyms used throughout this document are defined in ILLUSTRATION 7 below.

Army Rankings. Army ranking describes the level of funding the Army assigns to individual work packages. The Army rank is established prior to submitting the budget to OMB and identifies the funding level – established by Army - for individual work packages in the budget submission. Army Rank is defined by funding level as follows:

- Army Rank 1 = Decrement level
- Army Rank 2 = Ceiling level
- Army Rank 3 = R1 level
- Army Rank 4 = R2 level
- Army Rank 7 = Capability level
- Army Rank 8 = Authorized but not budgetable, eg. no report/against Admin position
- Army Rank 9 = Not Authorized
- Army Rank 10 = Budget under another Business Line

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Budget Funding Level Definitions. The following represent the potential funding levels in an Army budget submission to OMB. Each level (from Initial to Recommended) is an incremental increase in funding in the budget. The number of funding levels varies in any PY based on Army budget guidance.

Initial Level of Funding. This is the baseline or minimum funding level. For Investigations and Construction programs the criteria for inclusion in the Initial Program can be found in ANNEXES I and II respectively. For O&M, the Initial Program is defined as the total funding of Increments 1 and 2 for ALL business lines (see Appendices for increment criteria). (Note that this is not the same program represented by “baseline estimates” required by PL 101-508 or discussed in OMB’s Circular A -11).

Decrement Level of Funding. This level of funding is generally a percentage below the Ceiling level (see below). The percentage is prescribed by Army or OMB and reflects some intermediate funding level between the Initial and the Ceiling programs. The Decrement Program level only applies when directed by Army.

Ceiling Level of Funding. This level of funding is established by Army as the “target” level of funding (budget authority) for the Corps CW budget in the PY. It is the funding level that all other funding levels are compared to in the PY and the funding level that is provided in the PY-2 publication entitled: Budget of the United States Government, Historical Tables (unless provided otherwise by OMB).

Recommended 1, 2 or 3 Levels of Funding. These are additional (incremental) funding levels above the Ceiling that may be requested by Army and are used to evaluate additional workload and the associated increased costs above the Ceiling program.

Capability. Capabilities are stated in terms of obligations, not expenditures. Capability is defined as the amount of funds, over and above projected or actual unobligated carry-in, that can be obligated effectively and efficiently on a project in a fiscal year, consistent with law and policy. Capability and “Amount That Could Be Used” are identical. Funds that cannot be obligated in a fiscal year and would be carried over for obligation in future fiscal years are not included in capability. The exception is that, for contract work that is fully funded in a fiscal year but has a performance period extending beyond that fiscal year, the full costs of engineering and design and supervision and administration associated with that contract work may be included in capability for that fiscal year.

Critical Work Activities/Packages. Each MSC is responsible for evaluating individual work activities/packages to determine their level of importance with regard to funding in the PY budget. In addition, MCSs must be able to fully justify work activities/packages that are

identified as "critical" to their needs. The supporting justification for critical work activities/packages must be compelling and the work must be non-deferrable. If requested by HQUSACE, the justification for critical work activities/packages must be supported by a risk vs consequence "type" analysis. All "operations", "maintenance" and "joint cost" work activities/packages in the budget that are identified as "critical", whether routine or non-routine, should be capable of meeting this requirement.

Major Maintenance. Any Operation and Maintenance work item costing \$3M or more that is not an element of rehabilitation.

Project Partnership Agreement/Partnership Agreement: Reference WRDA 2007 H.R. 110-280 WRDA 2007 Conference Report, Section 2003 "References to Cooperation Agreements" - any reference in a law, regulation, document, or other paper of the United States to a "cooperation agreement" or "project cooperation agreement" shall be deemed to be a reference to a "partnership agreement" or a project partnership agreement," (PPA), respectively.

Rounding. All cost estimates shall be rounded to the nearest one thousand dollar (\$1000) unless otherwise specified.

Work Increment: A work increment is a discrete amount of work identified by an activity or a set of activities with specific resource requirements and a schedule.

Work Package Rankings. Will be used to determine the relative priority of activities within a project, district, and MSC. Work packages must be ranked 1 to "n" in priority order.

OFA Common Data Field Definitions (all Business Lines):

- (1) BUSINESS PROGRAM = Abbreviation for Business Line, such as ENR.
- (2) EROC = Two character code for district, such as B1 for Memphis District.
- (3) MSC = Three letter abbreviation for the MSC, such as MVD. This is a display-only field which is auto-populated based on the EROC. Data entry is not required.
- (4) DISTRICT = Three letter abbreviation for district, such as NWK. This is a display-only field which is auto-populated based on the EROC. Data entry is not required.
- (5) APPROP ABBREV = An abbreviation for the Appropriation Account. The abbreviations are: I (Investigations), C (Construction), OM (O&M), MRT-I (MR&T Investigations), MRT-C (MR&T Construction), MRT-OM (MR&T O&M), FCCE, and

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FUSRAP. This is a display-only field which is auto-populated based on the CW TYPE OF FUNDS. Data entry is not required.

(6) CW TYPE OF FUNDS = An 11 character code that combines the numeric Appropriation Account codes with the numeric Category-Class-Subclass (CCS) codes. Appropriation Account codes (characters 1-7) are Investigations (96 3121), Construction (96 3122), Operations and Maintenance (96 3123), Mississippi River and Tributaries (96 3112), FCCE (96 3125), and FUSRAP (96 3130). These are followed by a space (character 8) and then the three digit CCS code (characters 9-11) which can be found in TABLE 3 below.

(7) PROGRAM CODE = A code which identifies the AMSCO/CWIS/PWI associated with a OFA project. A Program Code must be assigned to every CW OFA project for which funds are requested. The Program Code is a project level code which is entered in Primavera. Refer to Appendix N in the most recent Execution EC for further guidance concerning Program Codes.

(8) PRIMARY FEATURE CODE = Required for all PED, Construction, and Operation & Maintenance work packages for which a Budget Request – Fed amount is entered. Select the Feature Code number in 8.b. below which most closely relates to the predominant asset category for the work package. “N/A” will be auto-populated for EM and FUSRAP. “N/A” is not valid except for EM, FUSRAP and Inspection of Completed Work packages that involve multiple projects.

Feature Code Defined – “Features” are the permanent project constructed features and their “Codes” are the two digit account numbers found in Appendix A, Chapter 14 of ER 37-1-30, “Financial Administration: Accounting and Reporting.” *(NOTE: Chapter 14 of the current version of the ER is focused on “Financial Reporting and Accounting Treatment for Multiple - Purpose Projects with Power” and is not all inclusive of valid asset category permanent features representative of all Corps water resource projects. Therefore, for asset management purposes, the Feature Codes in ER 37-1-30 have been supplemented as noted in this change document below in italics. They are derived from previous versions of the Finance and Accounting regulation, specifically ER 37-2-10, which is no longer an active publication.)*

Applicable Feature Codes (enter two-digit number only):

- 01 - Land
- 03 - Reservoirs
- 04 - Dams
- 05 - Locks

- 06 - Fish and Wildlife
- 07 - Power Plants
- 08 - Roads, Railroads and Bridges
- 09 - Channels and Canals
- 10 - Breakwaters and Seawalls
- 11 - Levees and Floodwalls
- 12 - Navigation Ports and Harbors
- 13 - Pumping Plants
- 14 - Recreation
- 15 - Floodway Control and Diversion Structures
- 16 - Bank Stabilization
- 17 - Beach Replenishment
- 18 - Cultural Resource Preservation
- 19 - Buildings, grounds and utilities
- 20 - Permanent Operating Equipment

Narrative definitions of Feature Code asset categories -- The current ER lists "sub-features" (or "plant items") associated with each Feature and is not all inclusive as mentioned above. For ease of understanding for the purposes of this EC, the narratives from the prior ER 37-2-10 which is no longer an active publication (see: <http://140.194.76.129/publications/eng-regs/er37-2-10/ch08.pdf>) are provided below:

01 Land. While the referenced ER is focused on the "acquisition" of land, for the purposes of Asset Management and this requirement, that definition is too limiting. Land will be defined as "any work to be performed on the land." This completes the entire portfolio of assets: buildings, structures and now land.

02 Not applicable.

03 Reservoirs. This feature includes clearing lands in reservoirs of debris, brush, trees, improvements and structures. Also includes the sale of salvage obtained by sale or disposal of material in clearing operations. Also includes bank stabilization, shoreline improvement, fire breaks, fencing, boundary line surveys and improvement, fencing, boundary line surveys and marking of land which has been acquired or is to be acquired, rehabilitation of natural resource, erosion control, drainage and rim grouting and mine sealing etc., to prevent leakage.

04 Dams and Other Water Collecting Facilities. This feature includes the cost of all dams and other water collecting facilities, whether man made or natural, together with appurtenant water diversion, regulation, and delivery facilities.

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05 Locks. This feature includes facilities to provide for passage of waterborne traffic, including gates, valves, operating mechanisms, cribs, fills, lock walls, guide and guard walls, and operating buildings.

06 Fish and Wildlife Facilities. This feature includes items such as ladders, elevators, locks and related facilities for passage of fish at dams and navigation locks and maintenance of fish runs; and provision for wildlife preservation.

07 Power Plant. This feature includes those facilities specifically required for the production of power other than those included in the feature "Dams," and consists of the following: powerhouse, turbines, and governors, generators, accessory electrical equipment, miscellaneous power plant equipment, switchyard, and tailrace improvement for power. In the case where the powerhouse is an integral part of the power intake dam, the cost of the power intake dam is included in this feature. Where the structure of a dam also forms the foundation of the powerhouse, such foundation is considered a part of the dam. The cost of a cofferdam or the appropriate part thereof is charged to this feature. Units for production of power for the operation only of navigation, flood control, or other purpose projects (excluding those projects with power as a feature) are included in other features as appropriate.

08 Roads, Railroads and Bridges. This feature includes permanent roads, railroads, and bridges required for access and other purposes in connection with the construction and operation of the project. This feature does not include access roads to recreation facilities and areas, which will be charged to the feature "Recreation Facilities," and service roads and service railroads on structures, which will be charged to the appropriate feature for the structure.

09 Channels and Canals. This feature includes all forms of excavation (including dredging, preparation of spoil disposal areas, and attendant facilities) necessary for the development and construction of channels, or improving existing watercourses for flood control and major drainage. Excavation of natural watercourses to provide adequate depths for navigation is Included. Excavation for specific structures, such as dams and locks used in the development of waterways and conservation of water resources, is Included with such structures. The removal of trees, brush, accumulated snags, drift, debris, water hyacinths and other aquatic growths from canals, harbors, and channels in navigable streams and tributaries thereof for navigation is included in this feature. Excavation, clearing and removal of accumulated snags, drifts, debris, and vegetable growth from streams for flood control and major drainage purposes also is included. Included in this feature are revetments, linings, dikes, and bulkheads constructed as channel improvement works for flood control or navigation, as against such items

constructed for bank stabilization only. Also included are jetties constructed in connection with flood control channel improvements.

10 Breakwaters and Seawalls. This feature includes breakwaters, seawalls, piers, and like improvements constructed in connection with the protection of beaches, harbors, shores, and port facilities against the force of waves and encroachment of seas or lakes by direct wave action. Jetties, groins, and like structures provided in seas, lakes, tidewater reaches of rivers and canals, and harbors to control water flow and current, to maintain depth of channels, and to provide protection are included in this feature.

11 Levees and Floodwalls and Flood-proofing. This feature includes embankments and walls constructed to protect areas from inundation by overflow from creeks, rivers, lakes, canals, and other bodies of water. This feature consists of such items as: service roads on levee crown or landside berms, road ramps, closure structures, seepage control measures, erosion protection measures on levee slopes and on berms and bank slopes when an integral part of the levees or floodwalls; and drainage facilities, constructed to provide means for the passage of accumulated drainage and seepage water and sewage from the protected area over or through levees and floodwalls, comprising such items as interceptor and collection sewers and ditches, and pressurized sewers and drainage structures, including outfalls through levees or floodwalls. Levees locally called dikes are included in this feature. Flood-proofing includes construction activities associated with raising the buildings in the flood zone. Pumping plants are included in the feature "Pumping Plants."

12 Navigation Ports and Harbors. (no description available, derived from a previous F&A regulation)

- 12100 BULKHEADS, JETTIES, PIERS, DOCKS, SPOIL DISPOSAL AREA
ATTENDANT FACILITIES, ETC.
- 12200 REVETMENTS AND LININGS
- 12300 EXCAVATION/DREDGING OF NAVIGATION PORTS AND HARBORS
- 12400 REMOVAL OF TREES, BRUSH, ACCUMULATED SNAGS, DRIFT,
AQUATIC AND VEGETABLE GROWTHS AND DEBRIS
- 12900 ALL OTHER

13 Pumping Plants. This feature includes pumping plants constructed to pass accumulated drainage and seepage water and sewage from the protected area over or through levees and floodwalls.

14 Recreation Facilities. This feature includes access roads; parking areas; public camping and picnicking areas, including tables and fireplaces; water supply; sanitary

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facilities; boat launching ramps; directional signs; and other facilities constructed primarily for public recreational use, including essential safety measures in connection therewith. The latter includes, as appropriate, sheltered anchorage areas for small craft, bathing areas readily accessible and reasonably safe, and safety provisions for visitors and fishermen in the project area.

15 Floodway Control and Diversion Structures. This feature included floodway control and diversion structures to provide for the release of flood waters from streams where discharges exceed flood capacity of the stream, including such items as diversion dams, gated or un-gated discharge structures, training walls, stilling basin, and those adjacent embankment sections forming part of the control structure. Construction of channels and levees not forming part of the main control structure, but necessary for operation of such structures is included in the appropriate feature "Channels and Canals" or "Levees and Floodwalls."

16 Bank Stabilization. This feature includes revetments, linings, training dikes, and bulkheads for stabilization of banks and watercourse to prevent erosion, sloughing, or meandering. Bank stabilization constructed in navigation channels or in connection with flood control channel improvement is included in the feature "Channels and Canals."

17 Beach Replenishment. This feature includes replacement of eroded beaches, for purposes of recreation and shore protection, by direct deposit of materials obtained by dredging or land excavation.

18 Cultural Resources Preservation. This feature pertains to the preservation, recovery, or other mitigation of significant scientific, pre-historical, historical, or archeological data, buildings, sites, districts, structures, or objects. This feature covers costs during construction and includes excavation, preparation of areas, recovery of data, movement of artifacts, relics and objects of antiquity, analysis of data and preparation of reports thereon, and construction of cultural facilities.

19 Buildings, Grounds and Utilities. This feature includes permanent facilities such as operators quarters, administration and shop buildings, storage buildings and areas, garage buildings and areas, community buildings, local streets and sidewalks, landscaping, and electric, gas, water, and sewage facilities. Where space in a dam, powerhouse, or other basic structure is used in lieu of construction of any of the above-mentioned buildings, such allocated space is not separated from the basic structure.

20 Permanent Operating Equipment. This feature includes all project-owned operation and maintenance tools and equipment, such as laboratory, shop, warehousing, communications, and transportation equipment, and office furniture and equipment.

Source(s). The current Feature Codes and list of “plant Items” associated with each Feature Code are identified in Chapter 14 of ER 37-1-30 which may be found on the HQ Resource Management Sharepoint site at:

<https://cops.usace.army.mil/sites/RM/FAPolicy/default.aspx>

-> Documents

-> Finance and Accounting Policy Shared Documents

-> Finance and Accounting Regulations

-> ER 37-1-30 Financial Administration, Accounting and Reporting

-> Chapter 14, Accounting Treatment for Multiple Purpose Projects

Or direct link at:

<https://cops.usace.army.mil/sites/rm/fapolicy/shared%20documents/forms/allitems.aspx?RootFolder=%2fsites%2fRM%2fFAPolicy%2fShared%20Documents%2fREGs&FolderCTID=&View=%7b1EE46D4D%2d0493%2d4566%2d8545%2dAA69F67F0F7F%7d>

Specific information on the supplemental Feature Codes (in *italics* above) are found in ER 37-2-10 [<http://140.194.76.129/publications/eng-regs/er37-2-10/ch08.pdf>] which was superseded by the previously referenced ER 37-1-30.

(9) ADDITIONAL FEATURE CODE(S) = Required, if applicable, for all PED, Construction, and Operation and Maintenance work packages for which a Budget Request – Fed amount is entered. List all of the additional Feature Code(s) that are secondarily supporting other feature code asset categories. As an example, a budget work package to construct a new “storage building” would have a “Primary” Feature Code of 19 but also have an “Additional” Feature Code of 14 if it is associated with a recreation area. Note, not all work packages will have an “additional” Feature Code, in fact the vast majority will not. One or more Feature Code numbers in 8.b. above will be selected and entered into OFA. Separate multiple entries with commas.

(10) MITIGATION REQUIREMENT CODE = Required for all PED, Construction and O&M work packages. Indicates that the Project, not necessarily the specific line item, will have, has, or had required mitigation as specified in a decision document or NEPA document. Includes all mitigation since 1970 not just that subject to Section 906 of WRDA 1986 as amended. Values are: Y = Project includes mitigation requirements, N = Project does not include mitigation requirements. Check with planning/environmental staff if you are uncertain regarding the proper response. Generally N for ENR items. “N/A” will be auto-populated for FUSRAP, and business lines EM, RC, and WS.

(11) SUSTAINABILITY (EO13514) = A code used to track investments that will

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support implementation of Executive Order (EO) 13514 , EO 13423, Energy Policy Act, 2005 (EPAAct) and Energy Independence and Security Act, 2007 (EISA) sustainability requirements. Valid values are 1-8 and N/A. Separate multiple entries with commas.

(12) P2 PROJECT NUMBER = A six digit numeric code which identifies a project in P2. This code is system-generated when a project is initiated in Primavera. In OFA it is a display-only data field.

(13) BUDGET ITEM ID = A code to uniquely identify multiple entries within the same EROC, P2 Project, CW Type of Funds (Approp/CCS), Business Line, Increment, and Phase Activity. See paragraph 11c.(1)(k) in the main EC for more information concerning Budget Item ID.

(14) INCREMENT = Enter the appropriate number in accordance with the guidance in the Definitions/Glossary section in the main EC. Enter a “1” if the budget item meets the requirements for inclusion in the Initial increment as defined. Enter a “2” if the budgetable item should be considered for the second Increment, etc. Every project may not necessarily have a budget item in the first two Increments. A project may have multiple budget items in an increment.

(15) DIST RANK = The budget item’s rank in the district’s request.

(16) MSC RANK = The budget item’s rank in the MSC request.

(17) HQ RANK = The budget item’s rank in the HQ request. HQ will complete this item. It is not available for District or MSC entry.

(18) ARMY RANK = The budget item’s rank in the Army request. HQ will complete this item. It is not available for District or MSC entry.

(19) PRESIDENT’S BUDGET RANK = The budget item’s rank in the President’s Budget Rank, will be entered by HQ after OMB Passback. It is not available for District or MSC entry.

(20) PHASE = A letter code used to indicate phase. See Table 3 for a list of valid values. Note that Joint activities on multi-purpose hydropower projects (Cat-Class 300) will have a phase code of OJ or MJ.

(21) PHASE ACTIVITY = A one or two letter code used to indicate categorizations of work within phases. See Table 3 for a list of valid values.

(22) PHASE STATUS = Status of the Phase listed in column 20 will be indicated with a letter code. NS = New Start; NP = New Phase; CN=Continuing Phase; LY= Last year of phase. See TABLE 3 in the MAIN part of this EC for definitions. If a study or a project is completing one phase and starting a new one in the PY (e.g. finish Feasibility and start PED), each should be a separate entry (one LY and one NP or NS). If there are multiple budget items for one phase of a project (especially construction) this code may vary. Perhaps the first entry would be NP and the second one CN and the last one if funded would complete the phase and be LY.

(23) PHASE COMPL = Required for all items in all accounts. Enter the fiscal year the phase for which funds are being requested is scheduled to complete. This is a 4-digit numeric field.

- The Reconnaissance phase ends with execution of a Feasibility Cost Sharing Agreement, or a report recommending no Federal action.
- For budget development, use the date of the Division Engineer's Transmittal of the report to HQ as the end of the Feasibility phase.
- The PED phase ends with completion of the first set of plans and specifications and execution of the PCA/PPA (project partnership agreement).
- Construction completion is defined as physical completion with the project turned over to the non-Federal sponsor to operate and maintain.
- For items in the O&M account, enter the PY unless the requested funds are scheduled to be carried over. For APPROP ABBREV "OM" and "MRT-OM", N/A will be auto-populated for the EN-Stewardship, RC and WS business lines. For APPROP ABBREV "OM" and "MRT-OM", the PY will be auto-populated for the EN-Restoration, FRM, H and N business lines.
- **For the ENR business line only – this column must be populated with the FY the project is physically complete --- NOT when the project is turned over to the sponsor.**

(24) PROGRAM NAME = Name associated with the Program Code which is entered in Primavera. In OFA it is a display-only data field.

(25) P2 PROJECT NAME = Name of the P2 project. The project name is entered in Primavera. In OFA it is a display-only data field.

(26) SYSTEM CODE = The System Code is used to identify the primary system in

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which the project or study (Program Code) is located. See TABLE C-5-1 for a list of valid system codes. Required entry for all items.

(27) BASIN CODE = The USGS Hydrologic Unit Codes (HUC) is used to identify systems/watersheds. The four-digit code for the appropriate sub-region as defined by USGS will be entered for every budget item. These codes may be found at http://water.usgs.gov/GIS/huc_name.html. Some programmatic elements may cover more than one sub-region. If there are separable elements enter the code that is appropriate for the separable element. If there are no separable elements enter the code applicable to most of the project or area where funding will be applied. Required entry for all items.

(28) STATE = Enter the two letter abbreviation for the primary state in which the study or project (Program Code) is located.

(29) CONTRACT TYPE = Required for all contract items in Construction and any contract with a remaining amount over \$20,000,000 in any phase. Enter one of the following: CC for continuing contract; CF for fully funded contract; CB for base contract with options; or CI for incrementally funded contract.

(30) CURRENT BUD - FED = This is a display-only field which is auto-populated from the project's current schedule in Primavera. It displays the PY 'At Completion Cost' Federal (Corps) amount for the budget item.

(31) BUDGET REQUEST - FED = The Federal (Corps) amount requested for the work proposed to be accomplished with this budget item in the PY. Enter the amount in whole dollars, rounded to the nearest thousand. Example: Five million four hundred thirty two thousand dollars should be entered as 5,432,000.

Sustainability Code Definitions (updated) (EO13514 and 2011 USACE SP Goals). The OFA column for the Sustainability Code is located between the "Mitigation Requirement Code" and "P2 Project Number" columns. All applicable codes below should be entered for all items in all programs or appropriations that support USACE's achievement of EO and statutory sustainability requirements. These codes align with the 8 goals of the 2011 USACE SSPP. Use the "Budget Item Justification" (for Hydropower use "Work Package Justification") column to provide more detail on how the item will support the sustainability goal(s) identified.

1 = Energy and Scope 1 & 2 GHG Reduction - Use this code if the item will:

- Reduce facility energy consumption
- Increase renewable electricity generation and/or consumption

- Reduce petroleum use in fleet vehicles
- Increase use of alternative fuels in fleet AFVs
- Optimize use of vehicles and right-size the fleet
- Increase use of low emission and high fuel economy vehicles
- Reduce petroleum use in the floating plant
- Reduce GHG process emissions (i.e. USACE owned waste water treatment plants, laboratories, landfills, etc.)
- Reduce GHG fugitive emissions (i.e. equipment leaks, refrigeration, etc.)
- Contribute in other ways towards reducing energy/fuel or GHGs

2 = Scope 3 Greenhouse Gas Reduction - Use this code if the item will:

- Reduce the GHG emissions associated with off-site (contracted) solid waste disposal
- Reduce the GHG emissions associated with federal employee business air travel
- Reduce the GHG emissions associated with federal employee business ground travel
- Reduce the GHG emissions associated with federal employee commuting
- Reduce the GHG emissions associated with off-site (contracted) wastewater treatment

3 = High-Performance Sustainable Design / Green Buildings / Regional and Local Planning – Use this cod if the item will:

- Support the design of zero-net energy federal buildings
- Support compliance with the “Guiding Principles for Federal Leadership in High Performance and Sustainable Buildings” (Guiding Principles) for new and/or existing buildings or leases >5,000 gross square feet
- Demonstrate use of cost-effective, innovative building strategies to minimize energy, water and materials consumption
- Enable the management of existing building systems to reduce energy, water and materials consumption in a manner that achieves a net reduction in agency deferred maintenance costs
- Optimize performance of the agency’s real property portfolio – examine opportunities to decrease environmental impact through consolidation, reuse and disposal of existing assets prior to adding new assets
- Use of best practices and technology in rehabilitation of historic Federal properties
- Enable participation in regional transportation planning (recognition and use of existing community transportation infrastructure)
- Increase effectiveness of local energy planning

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- Incorporate sustainable building location into policy and planning for new Federal facilities and leases
- Enable Environmental Impact Statements and Environmental Assessments required under the National Environmental Policy Act (NEPA) for proposed new or expanded Federal facilities to identify and analyze impacts associated with energy usage and alternative energy sources
- Enable consultation with Federal, State, Tribal and local management authorities regarding impacts to local ecosystems, watersheds and environmental management associated with proposed new or expanded Federal facilities.

4 = Water Use Efficiency and Management – Use this code if the item will:

- Reduce potable water use
- Reduce industrial, landscaping, and agricultural water use
- Identify and implement water reuse strategies
- Achieve objectives established by EPA in the Stormwater Guidance for Federal Facilities (http://www.epa.gov/owow/NPS/lid/section438/pdf/final_sec438_eisa.pdf)

5 = Pollution Prevention and Waste Elimination – Use this code if the item will:

- Increase source reduction of pollutants and waste
- Divert non-hazardous solid waste from landfills, excluding construction and demolition (C&D) debris
- Divert C&D materials and debris from landfills
- Reduce printing paper use
- Increase use of uncoated printing and writing paper containing at least 30% postconsumer fiber
- Reduce and minimize the acquisition, use, and disposal of hazardous chemicals and materials
- Increase diversion of compostable and organic materials from the waste stream
- Implement integrated pest management and landscape management practices to reduce and eliminate the use of toxic and hazardous chemicals and materials
- Increase agency use of acceptable alternative chemicals and processes
- Decrease agency use of chemicals to assist agency in achieving GHG reduction targets
- Enable reporting in accordance with Sections (301-313) of the Emergency Planning and Community Right-to-Know Act (EPCRA) of 1986

6 = Sustainable Acquisition – Use this code if the item will: Enable the supply or use of products and services that are energy efficient (Energy Star or FEMP-

designated), water efficient, bio-based, environmentally preferable (excluding EPEAT-registered products), non-ozone depleting, contain recycled content, or are non-toxic or less toxic alternatives per Federal Acquisition Regulation Subchapter D Part 23
(<https://www.acquisition.gov/FAR/current/html/FARTOCP23.html#wp227606>).

7 = Electronic Stewardship and Data Centers – Use this code if the item will:

- Enable use of power management, duplex printing, and other energy efficient or environmentally preferred options and features on all eligible agency electronic products
- Enable environmentally sound practices for disposition of all agency excess or surplus electronic products
- Use best management practices for energy efficient management of servers and Federal data centers
- Enable the supply or use of EPEAT-registered products.

8 = Agency-Specific Innovation and Government-wide Support – Use this code if the item will contribute to sustainability in ways not covered above, such as:

- Innovative practices, technologies, or techniques used to achieve goals beyond what is required in EO13514.
- Any action, product or service that stands out as a practice, technology or technique that may help other agencies achieve their EO13514 goals.

ILLUSTRATION 7

Glossary of Acronyms



Glossary of
Acronyms

