



**US Army Corps
of Engineers®**

Program Management Plan

for the

Civil Works Environment - Stewardship Program

(Sub-Program of the Civil Works Environment Business Program)

U.S. Army Corps of Engineers

2004-2007

Preface

The U.S. Army Corps of Engineers (Corps) manages approximately 12 million acres of land and water at 456 water resources projects (Appendix A) located in 46 states. This property contains many sites of special significance for wildlife, fish, wetlands, forest, grasslands and our cultural and historical heritage. Visitors are drawn by the abundant natural resources surrounding the projects – sometimes the only oases of green and blue in an increasingly developed world. As the largest federal provider of recreation in the U.S., approximately 400 million, or 1 in 10 Americans, visits a Corps recreation area each year.

Benefits from the Corps Stewardship Program include those associated with managing natural resources in a healthy and sustainable condition, fostering healthy lands and waters by balancing public uses and needs, protecting our cultural heritage, and providing public outdoor recreational opportunities. These efforts are performed in partnership with Federal, State and local government entities, quasi-public organizations, the private sector and include state and federal fish hatcheries, state wildlife management areas, and federal wildlife refuges. As part of our ongoing effort to raise awareness about environmental issues, our staff provides hundreds of environmental education programs every year that reach more than 3 million people.

There are currently more than 30 national Memoranda of Understanding and Memoranda of Agreement between other organizations and the Corps. Stewardship related agreements include those with: B.A.S.S., Ducks Unlimited Inc., Environmental Protection Agency, Interagency Agreement with U.S. Fish & Wildlife Service, Interagency Agreement on the Endangered Species Act, Multi-agency Agreement for the Conservation of the Black-tailed Prairie Dog, International Mountain Biking Association, National Environmental Education & Training Foundation, National Fish & Wildlife Foundation, National Wild Turkey Federation, The Nature Conservancy, Health & Human Services – Center for Disease Control, Watchable Wildlife, Tread Lightly! Inc., and the Association of Partners for Public Lands.

Corps lands and waters also provide thousands of jobs and billions of dollars in revenue for local communities. More than 500 private concessionaires, with \$1 billion in assets, provide support services and facilities at Corps lakes such as: marinas, bait shops and grocery stores. Non-federal interests manage 42% of the recreation and natural resources areas. This includes approximately 200 state wildlife management areas, 25 federal wildlife refuges, 50 state and federal fish hatcheries, and hundreds of state and local government parks. Visitors to Corps lakes generate an estimated \$15 billion in economic activity annually on items such as trip-related expenses such as gas, food, lodging and supplies within and outside the local communities surrounding Corps lakes. These dollars support 500,000 jobs nationwide. With more than 80 percent of Corps lakes located within 50 miles of a large U.S. city, this relationship has a tremendous socio-economic impact and is one significant way in which the Corps provides Value to the Nation (<http://www.corpsresults.us>).

The Environment - Stewardship Advisory Team (SAT) was formed to provide oversight and serve as an ad-hoc advisory committee to the Chief, Natural Resources Management, in the Corps Headquarters. In addition, the SAT provides input to the strategic planning vision and makes recommendations on national priorities for the Corps Stewardship Program. Members of the SAT include representatives from all Corps Divisions and rotating District and Project representatives. In addition, members from the Engineer Research and Development Center provide support and assistance to the SAT. Stewardship is part of the overall Environmental Program for the Corps. Program managers at HQ/MSC's, Districts, and projects work together to achieve successful stewardship of Corps lands and waters. This includes program guidance, budget preparation and review at the HQ/MSC level, implementation at the District and project level, and reporting of performance measure data at the project level.

The Natural Resources Management (NRM) Gateway (<http://corpslakes.usace.army.mil>) is designed to be an efficient and dynamic method by which to assemble and manage institutional knowledge of the NRM program and its many components such as recreation, natural and cultural resources stewardship, environmental compliance, and career development for all employees. A portion of the website is available to the public, academia, and our federal, state and private partners to market these Corps services and facilitate learning. The Gateway is a major support tool for the NRM Community of Practice (CoP).

Stewardship is one of 4 sub-programs under the Corps Civil Works Environment Program consisting of Stewardship, Compliance, Ecosystem Restoration, and Formerly Utilized Sites Remedial Action Program (FUSRAP). This Program Management Plan (PgMP) provides a cooperative strategy for addressing the most critical national issues affecting the Stewardship Program within the Corps during the next three years. In accordance with ER 5-1-11, U.S. Army Corps of Engineers Business Process, this Program Management Plan (PgMP) is a living, working-level document that will be revised as needed to reflect changes in strategy, funding, or management goals.

Program Management Plan
for the
Environment - Stewardship Program
(Sub-Program of Civil Works Environment Business Program)

Table of Contents

<u>Subject</u>	<u>Page</u>
Preface	3
Table of Contents	5
1 Scope	7
1.2 Objective of PgMP	7
1.3 Customers and Stakeholders	8
1.4 Location, Description of Service, Key Products	8
1.7 Authority	9
1.8 Environment – Stewardship Program Goals and Objectives	9
1.9 Research and Development	10
1.10 Stewardship Program Goals & Objectives	11
2 Program Delivery Team	12
3 Critical Assumptions and Constraints	13
4 Work Breakdown Structure and Schedule	14
5 Funding.	17
5.1 Funding for PgDT	17
5.3 Funding for Stewardship Business Program	18
6 Quality Control Plan and Objectives	18
7 Acquisition Strategy	18
8 Risk Analysis	18
9 Change Management Plan	18
10 Communications Strategy	19
11 Measurement of Program Success	19
12 References	19
13 Sub-Program Management Plan Approval	20

Appendices

Appendix

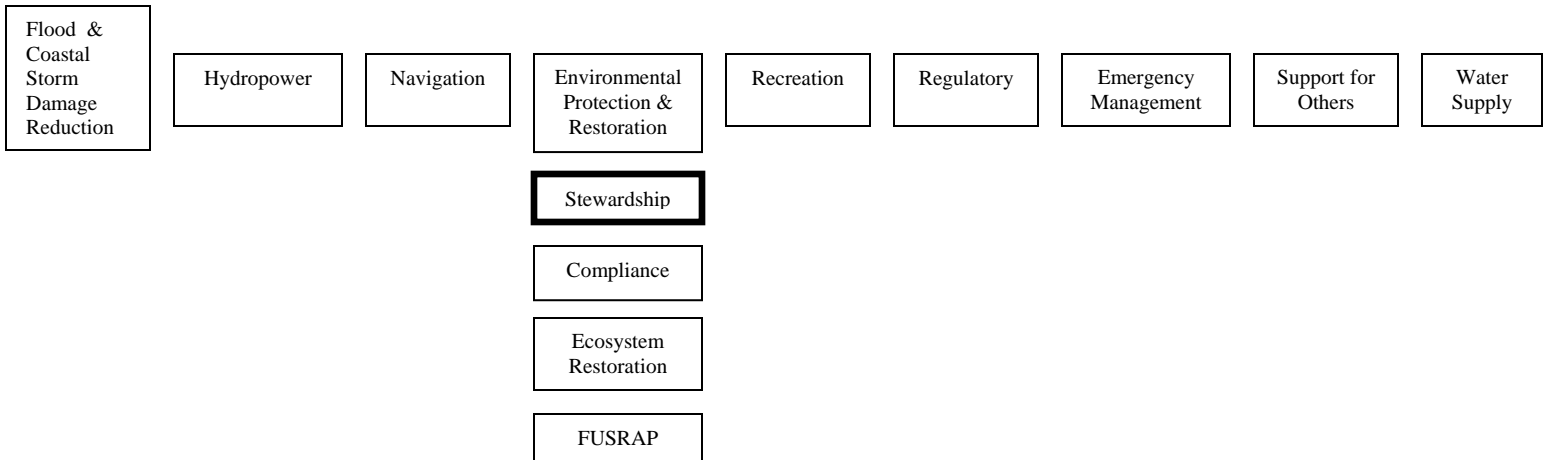
- A. Map of Corps Lands & Waters
- B. Natural Resources Management Mission Statement
- C. Engineer Pamphlet (EP) 1130-2-540
- D. Environment-Stewardship Performance Measures
- E. Strategic Initiatives
 - 1. Master Plans Performance Measure
 - 2. Level One Natural Resources Inventory
 - 3. Natural Resources Inventory R&D
 - 4. EMRRP
 - 5. Land Use Policy
 - 6. OMBIL Development
 - 7. NRM Gateway (*Gateway steering committee for ES*)

Program Management Plan Environment - Stewardship Sub-Program

1. Scope. Stewardship is one of 4 sub-programs (Stewardship, Compliance, Ecosystem Restoration, and Formerly Utilized Sites Remedial Action Program (FUSRAP)) under the U.S. Army Corps of Engineers Environment Business Program. This PgMP provides a cooperative strategy for addressing the most critical national issues affecting the Environment - Stewardship Program within the Corps during the next three years. In accordance with ER 5-1-11, U.S. Army Corps of Engineers Business Process, this Program Management Plan (PgMP) is a living, working-level document that will be revised as needed to reflect changes in strategy, funding, or management goals.

1.1. The nine main Civil Works Business Programs, including the 4 sub-programs of the Environment Business Programs, are depicted below:

USACE Civil Works Business Programs



1.2. Objective of PgMP. The objective of this PgMP is to provide the framework for planning, communications, and quality management of the Environment - Stewardship Program. This PgMP is to clearly define primary focus areas (or “goals”) and high priority issues of the Corps Environment - Stewardship Program that can best be addressed on a national level. This PgMP will assist in carrying out the **Corps natural resources stewardship mission to manage, conserve and sustain natural resources consistent with ecosystem management principles, guidelines and authorized project purposes, while providing quality outdoor public recreation**

experiences, to serve the needs of present and future generations (Appendix B).

This mission supports the Corps 7 Environmental Operating Principles:

- Strive to achieve environmental sustainability. An environment maintained in a healthy, diverse, and sustainable condition is necessary to support life.
- Recognize the interdependence of life and the physical environment. Proactively consider environmental consequences of Corps programs and act accordingly in all appropriate circumstances.
- Seek balance and synergy among human development activities and natural systems by designing economic and environmental solutions that support and reinforce one another.
- Continue to accept our corporate responsibility and accountability under the law for activities and decisions under our control that impact human health and welfare and the continued viability of natural systems.
- Seek ways and means to assess and mitigate cumulative impacts to the environment; bring systems approaches to the full life cycle of our processes and work.
- Build and share an integrated scientific, economic and social knowledge base that supports a greater understanding of the environment and impacts of our work.
- Respect the views of individuals and groups interested in Corps activities; listen to them actively, and learn from their perspective in the search to find innovative win-win solutions to the Nation's problems that also protect and enhance the environment.

This PgMP will also assist in achieving the Stewardship Program goals to manage natural resources for a healthy sustainable condition and to foster healthy lands and waters by balancing public uses and needs. The result will be a management plan with well-defined responsibilities/ milestones for addressing critical issues and an on-going process for incorporating lessons learned.

1.3. Customers and Stakeholders. The Stewardship Program serves the American public and numerous partners and concerned stakeholders. Stewardship efforts on Corps water resources projects are performed in partnership with Federal, State and local government entities, quasi-public organizations, and the private sector and includes state and federal fish hatcheries, state wildlife management areas, and federal wildlife refuges.

1.4. Location, Description of Services, Key Products. The U.S. Army Corps of Engineers manages approximately 12 million acres of land and water at 456 multi-purpose water resources projects located in 46 states. This property contains many sites of special significance for wildlife, fish, wetlands, forest, grasslands and our cultural and historical heritage. Visitors are drawn by the abundant natural resources surrounding the projects – sometimes the only oases of green and blue in an increasingly developed world. Approximately 400 million, or 1 in 10 Americans, visits a Corps recreation area each year, making the Corps the largest federal provider of recreation opportunities in the U.S.

1.5. In operating and maintaining its multi-purpose lands and waters, the Corps integrates the management of the existing diverse natural resources (such as fish, wildlife, forests, grasslands, wetlands, soil, air, water) and cultural and historic resources with the providing recreation opportunities. The Corps conserves natural resources and provides public recreation opportunities that contribute to the quality of American life. Natural resources management activities include compiling natural resource inventories; identifying “special status species” and their habitat; preparing Master Plans, Operational Management Plans and general plans; conducting/implementing stewardship, mitigation or enhancement; protecting natural resources; producing and removing products such as timber, minerals and agricultural crops where part of a management plan; pollution abatement; out granting lands in accordance with approved policies; managing pest and invasive species; conducting boundary surveys and marking; shoreline management and managing for cultural and historical resources.

1.6. 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 preserve cultural and historical resources that occur on this federal estate, to comply with environmental law and to minimize environmental impact.

1.7. Authority. Since the passage of the National Environmental Policy Act (NEPA) in 1969, environmental protection has been a key component of the Corp's Civil Works programs. The Corps takes its primary mandate for stewardship of project lands and waters from the language provided in NEPA, which essentially states the Federal government will:

- Fulfill its duties as trustee of the environment.
- Assure safe, healthful and productive surroundings.
- Attain the greatest beneficial uses of the environment without degradation or undesired consequences.
- Preserve important historic, cultural and natural aspects of our national heritage
- Maintain an environment that supports diversity.
- Achieve balance between population and resource use.
- Enhance the quality of renewable resources.

1.8. The Water Resources Development Act of 1990, Section 306, established environmental protection as a primary mission in Civil Works water resources development. Compliance with various other federal and state environmental laws, such as such as the Endangered Species Act of 1973, the Fish and Wildlife Coordination Act, Forest Cover Act of 1960, Clean Water Act, Archeological and Historic Preservation Act, and others, are also primary objectives. Concurrently, the Corps must meet the authorized purposes for which its projects were built, and seek to balance sometimes-conflicting public needs and uses.

1.9. Research and Development. Research and development (R&D) recommended and guided by the Stewardship Advisory Team is to assist the Stewardship program with tools to accomplish its mission or to assist in providing information that forms the basis for the development of recommended policy. Recommendations for research are to be made through the Stewardship Advisory Team to the HQUSACE Environmental Stewardship Program Manager. The Engineering Research and Development Center (ERDC) and/or others outside the Corps will conduct the R&D requested by the SAT and approved by the Stewardship Program Manager. The SAT R&D PDT may also endorse research topics to the HQUSACE Environmental Stewardship Program Manager as a recommendation to be a part of the National R&D effort supported by the Corps. Other research and development initiated independently of the SAT between Corps Districts and laboratories are beyond the scope of this PgMP.

Research and Development Work Units of interest to the SAT will be overseen by the SAT R&D Team. The proponent of the research team will serve as a spokesperson and chairperson for the PDT. Each Work Unit will have a Statement of Need, a Prepared Scope of Work and an advocate before research commences. The advocate is a SAT member (or ad hoc member) and serves as an intermediary between the SAT and any principal investigator and/or institution assigned a SAT work unit. The advocate is a member to the SAT RD Team. SAT research will be topical and limited in nature and require three years or less to complete. Present topics being developed as work units include (See Appendix E):

Level I Inventory

SAT interests in Level I Inventory is described in existing Performance Measure. R&D is required to develop a protocol to determine species occurrence for the Special Status Species (SSS).

Level II Inventory

SAT interests in Condition Factor to develop the concept beyond the basic qualitative application made in a Level I vegetation survey. R&D is required to develop the factor as a quantitative value for Level II vegetation work.

Ecosystem R&D

SAT interest in Riparian and Prairie is in determining the importance of these limited resources to the Nation that occur on Corps administered lands

Riparian: R&D is required to determine the economic value of this natural resource to the Nation that occurs on Corps administered lands.

Prairie: R&D is required to determine the amount and status of grasslands to the Nation that occurs on Corps administered lands.

1.10. Environment - Stewardship Program Goals and Objectives. Overall Environment - Stewardship Program objectives as specified in Engineering Regulation (ER) 1130-2-540 and include managing natural resources in accordance with ecosystem management principles to ensure their continued availability and providing a safe and healthful environment for project visitors. Strategic goals and objectives for the Stewardship Program are below.

Vision and Results	Healthy lands & waters for future generations Resulting in benefits to: Individuals, Communities, Environment & the Economy.		
Strategic Goals	STRATEGIC GOAL 1. Manage natural resources to assure a healthy and sustainable condition, and protect and preserve cultural resources and historic properties.	STRATEGIC GOAL 2. Foster healthy lands and waters by balancing public uses and needs.	STRATEGIC GOAL 3. Become a recognized environmental steward.
Key Issues	<ul style="list-style-type: none"> • Level One & Two Natural Resources Inventories • Operational Management Plans (OMP) • Cultural/ Historic Properties 	<ul style="list-style-type: none"> • Master Plan • NEPA Documents • Stakeholders • Tribal Interests • Land Use Policy 	<ul style="list-style-type: none"> • Partnership • Educational Programs • Stakeholders, Tribal Interests • NRM Gateway

Strategic Objectives and Performance Goals	<p>STRATEGIC OBJECTIVE 1.1 Complete 100% of Level One and Two natural resources inventories as required by ER 1130-2-540.</p> <p><i>PERFORMANCE MEASURE:</i> Percent of minimum Level One Natural Resources Inventories completed on Corps fee-owned land.</p>	<p>STRATEGIC OBJECTIVE 2.1 Determine appropriate land and water uses.</p> <p><i>PERFORMANCE MEASURE:</i> Percent of healthy and sustainable acres on Corps fee-owned property.</p>	<p>STRATEGIC OBJECTIVE 3.1 Identify all current and potential stewardship partners at each project.</p> <p>STRATEGIC OBJECTIVE 3.2 Conduct meetings with current and potential stewardship partners at each project.</p>
	<p>STRATEGIC OBJECTIVE 1.2 Complete/ update OMP at a rate of 20% annually.</p>	<p>STRATEGIC OBJECTIVE 2.2 Determine the number of master plans and associated NEPA documents not meeting standards of ER 1130-2-550.</p>	<p>STRATEGIC OBJECTIVE 3.3 Increase the number Environment - Stewardship partnerships nationally by 10%.</p>
	<p>STRATEGIC OBJECTIVE 1.3 Increase acres of lands and waters meeting NRM portion of OMP objectives.</p> <p><i>PERFORMANCE MEASURE:</i> Percent of Corps administered mitigation lands (acres) meeting the requirements in the authorizing legislation or relevant Corps of Engineers decision document.</p>	<p><i>PERFORMANCE MEASURE:</i> Percent of Corps operated water resources projects with completed Master Plan in accordance with ER 1130-2-550 (checklist of required elements)</p>	<p>STRATEGIC OBJECTIVE 3.4 At the national level, establish additional tools (e.g., CDs, websites, toolboxes, brochures) to support Environmental Stewardship Program.</p>
	<p>STRATEGIC OBJECTIVE 1.4 Provide support for special status species.</p> <p><i>PERFORMANCE MEASURE:</i> Percent of Corps projects with potential to participate in the recovery of Federally listed species (with final FWS/NMFS Recovery Plans in which the Corps is designated as an action agency) which are accomplishing the ascribed FWS/NMFS Recovery Plan Requirements.</p>	<p>STRATEGIC OBJECTIVE 2.3 Update master plans and associated NEPA documents to meet standards of ER 1130-2-550 at a rate of 10% annually.</p> <p>STRATEGIC OBJECTIVE 2.4 Increase external involvement (and opportunities) throughout the watershed to balance the needs at all projects.</p>	<p>STRATEGIC OBJECTIVE 3.5. Increase the number of environmental education programs by 10% nationally.</p>

Note: Modification required as performance measures & program goals evolve.

1.11. Civil Works Strategic Plan Linkages. The Civil Works (CW) Strategic goals are supported by Environment – Stewardship (E-S) strategic goals as follows:

- CW Strategic Goal 1: Provide sustainable development and integrated management of Nation’s water resources - supported by E-S Goal 1.
- CW Strategic Goal 2: Repair past environmental degradation and prevent future environmental losses - supported by E-S Goal 2.

- CW Strategic Goal 3: Ensure that projects perform in a manner to meet authorized purposes and evolving conditions - supported by E-S Goal 2.
- CW Strategic Goal 4: Reduce vulnerabilities and losses to the Nation and the Army from natural and manmade disasters, including terrorism - supported by E-S Goal 1.
- CW Strategic Goal 5: Be a world-class public engineering organization - supported by E-S Goal 3.

2. Program Delivery Team. The Stewardship Advisory Team (SAT) (as established by ER 1130-2-540, Chapter 7) shall serve as the core Program Delivery Team (PgDT). The SAT is comprised of members from across the Corps Environment – Stewardship Program. Each Major Subordinate Command (MSC) has a permanent SAT representative. Additional SAT members are selected at-large for 4-year terms. The chair is elected by team members to serve a 2-year term. Also, serving indefinite terms are the Project Manager from the Engineer Research & Development Center in Vicksburg, the Headquarters Environment – Stewardship Program Manager (Community of Practice (CoP) Leader). Additional members to the PgDT shall be selected ad hoc, and any additional members as recommended by Regional Stewardship Program Managers to and approved by the Headquarters – Stewardship Program Manager. The PgDT will meet twice annually to review progress and to recommend revisions to this PgMP. Project Delivery Teams (PDT) will meet on an as-needed basis to fully develop, implement, and sustain their products. The Environment - Stewardship Program Delivery Team members are:

Headquarters Environment – Stewardship Program Manager (CoP Leader):

Denise White	Headquarters, USACE
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Regional Environment – Stewardship Program Managers:

Michael Loesch	Great Lakes & Ohio River Division
Mary Burrow	Mississippi Valley Division
Will Rogers	North Atlantic Division
Paul Peloquin	Northwestern Division
Mike Lee	Pacific Ocean Division
Jonathan Davis	South Atlantic Division
Phil Turner	South Pacific Division
Larry Bogue	Southwestern Division

Selected District Environment – Stewardship Program Managers:

Don Wiese	Ft. Worth District
Maurice Simpson	Nashville District
Ismael Caballero	Portland District

Selected Project Environment – Stewardship Program Managers:

Angie Huebner (current Chair)	Jacksonville District
Tim Feaval	Alaska District
Gary Swenson	Rock Island District
Calvin Foster	Sacramento District
Jeff Krause (past SAT Chair)	Baltimore District

Stewardship Advisory Team Project Manager:

Scott Jackson	Engineer Research and Development Center
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3. Critical Assumptions and Constraints.

- Responsibility for the overall Civil Works (CW) Environment Business Program resides with the Headquarters USACE CW Environment Business Program Manager – Rennie Sherman.
- Responsibility for the CW Environment - Stewardship Program resides with the Headquarters Environment - Stewardship Program Manager – Denise Y. White.
- The CW Environment – Stewardship Program addresses the stewardship of natural and cultural resources on Corps administered, CW operating water resources project land and waters.
- The CW Environment – Stewardship PgDT shall operate under the general guidance of EP 1130-2-540, Chapter 7, Stewardship Support Program (Appendix C), and adhere to the guidelines and processes described for the Stewardship Advisory Team, in Chapter 7-6. This guidance may be supplemented or revised as needed.
- Members of the CW Environment - Stewardship PgDT, who are outside the SAT, shall be included in the recommendation, development, and coordination of projects/ efforts that support the CW Environment – Stewardship Program.
- There will be continuing pressure to develop Corps–managed lands and waters.
- The Corps provides 35% of all recreational fishing within the U.S. on lakes over 10 acres in size and 15% of freshwater fishing.

- Unique natural resources that occur on project lands include habitat for special status species, Important Bird Areas, Watchable Wildlife Areas, North American Waterfowl Management Plan Areas, significant wetlands, prairies, ecosystems and riparian areas.
- Unique cultural and historic resources include Native American sites, designated historic sites and paleontological sites

4. Work Breakdown Structure and Schedule.

<u>Task Areas & Work Items</u>	<u>Completed or Planned Major Tasks/Products</u>	<u>Milestone</u>
6-Month Strategic Initiatives		
1. Refine Primary Performance Measures - Three (3) measures are proposed for FY 06 implementation.	a) FY 05 Budget submission including draft measures. b) Assemble development/refinement project delivery team(s) (PTD). c) Draft refined measures submitted to PgDT for regional coordination, review and comment. d) Refinement PDT finalizes the measures with consideration of CoP input. Refined measures recommended to CoP Leader for upward reporting.	Jun-Sep 2003 Nov 2003 SAT meeting 16 Jan 2003 6 Feb 2004
2. Input to CW Budget EC.	Provide appropriate revisions to update FY 06 Budget EC.	15 Feb 2004
3. OMBIL – development and review.	Natural resources module data fields further developed and reviewed by SAT OMBIL workgroup.	Sep 2003 – Mar 2004
4. NRM Gateway	Conduct content development workshops	Jul 03 - ongoing

<u>Task Areas & Work Items</u>	<u>Completed or Planned Major Tasks/Products</u>	<u>Milestone</u>
1-Year Strategic Initiatives		
1. OMBIL – Deployment of Natural Resources Module.	a) Final contractor amendments to Natural Resources Module. b) Charter (or PMP) for OMBIL user group PDT developed by PgDT. c) HQ initiates implementation group. d) User group PDT assigned by HQ.	1 Jun 2004 1 July 2004 1 Aug 2004 30 Sep 2004
2. Performance Based Budget - FY 06 Performance Measures.	a) HQ data call for FY 04 performance results. b) MSC report performance results. c) PgDT determines baseline for all measures implemented in FY 06.	15 Aug 2004 10 Oct 2004 1 Nov 2004
3. Land Use Policy.	a) Assemble PDT to draft policy. b) PDT coordinates draft with CoP for comment. c) PTD incorporates CoP input in draft. PDT coordinates revised draft with PgDT for review, comment and revisions. d) Final draft of policy to HQ (Natural Resources Management CoP Leader - Tabb) for HQ coordination and approval. e) Stewardship CoP Leader revises ER 1130-2-540 to include policy.	12 Jul 2003 10 Oct 2003 12 Nov 2003 15 Feb 2004 30 Sep 2004

4. Develop GIS tool.	Explore options and field capabilities	Ongoing
5. Research.	a) PgDT prepares statements of need and develops work plans as appropriate for recommended. b) PgDT approved work plans submitted to HQ Stewardship CoP Leader and/or appropriate research POC - for R&D program consideration.	1 May 2003 – 1 May 2004 1 Mar 2004
<u>Task Areas & Work Units</u>	<u>Completed or Planned Major Tasks/Products</u>	<u>Milestone</u>
3-Year Strategic Initiatives		
1. Recognition as Environmental Steward.	a) Identify all current and potential stewardship partners at each project. b) Conduct meetings with current and potential stewardship partners at each project. c) Increase the number of Environment - Stewardship partnerships by 10% nationally. d) Increase the number of environmental education programs by 10% nationally. e) At the national level, establish additional tools (e.g. CDs, websites, toolboxes, brochures) to support Environment - Stewardship Program.	Ongoing 1 Oct 2005 1 Oct 2006 1 Oct 2006 Ongoing

2. Collaboration and Partnerships.	a) Update master plans and associated NEPA documents to meet standards of ER 1130-2-550, at a rate of 10% per year. b) Increase by 10% nationally the external involvement (and opportunities) throughout the various project watersheds to balance the needs of all projects.	30 Sep 2004 30 Sep 2004

5. Funding. The fiscal objective of this PgMP is to ensure that funds are efficiently utilized to meet the needs of the Environment - Stewardship Program and its customers. PgDT and Project Delivery Team (PDT) members are responsible for effective work execution and fiscal closeout.

5.1. Funding for PgDT. The PgDT shall be responsible for the recommendation and development priority work items to be addressed by the PgDT and CoP. Each recommended priority work item shall have an identified proponent to develop a *statement of need* that is presented to the PgDT at the SAT fall meeting (or as necessary). The statement of need is a clearly defined document that provides the current situation; problem statement, extent, frequency and impact; proposed solution; and desired end state. Statements of need shall be evaluated by the PgDT and upon their recommendation will proceed to development of a *work plan*. A project delivery team (PDT) shall be assigned to develop a proposed *work plan* for consideration by the PgDT during the spring SAT meeting (or as necessary). The proposed work plan will be developed in conjunction with the proponent, and in response to a statement of need. The work plan is a critical document that provides the PgDT with detailed information on the scope, approach, resources required, and return on investment. A work plan will be no more than 20 pages in length and provide the following information:

- a) Problem Statement Elaboration
- b) Review Activities, Programs and Studies
- c) Objectives
- d) Approach and Procedures
- e) Products and Target Audiences
- f) Technology Transfer
- g) Cost Estimate
- h) Deliverable Schedule

5.2. Cost estimates for each *work plan* as provided by the PDT and approved by the PgDT and Stewardship CoP Leader shall be used to estimate total PgDT annual resource needs. Annual PgDT funding is requested through the annual Operations and Maintenance (O&M) operating budget. Requests and justification for the Stewardship PgDT, Calendar Year +1 O&M operating budget, must be submitted by the PgDT to the CoP Leader not later than 1 September of the Calendar Year. The Stewardship Program Manager/CoP Leader will forward and defend this request through the established HQ budget/ funding process.

5.3. Funding for the Stewardship Business Program. Project, District and MSC Environment - Stewardship budget requests shall be prepared in accordance with annual CW Budget EC. Budget requests shall be performance based and in accord with guidance provided in the current budget EC and by higher-level authority. The final CW Environment - Stewardship O&M budget request shall be recommended to the Environment Business Program Manager (Rennie Sherman) by the Environment - Stewardship Program Manager (Denise Y. White), and in consultation with the PgDT. Funding allocations to MSCs shall be by the Headquarters USACE established process.

6. Quality Management Plan and Objectives. The PgDT meets twice annually to review program goals and objectives, obtain status reports on assigned tasks, and to make necessary schedule and program adjustments. The PgDT is responsible for coordinating with their MSC, district and field office counterparts to communicate program objectives and guidance, to participate in ongoing PgDT and overall CW Environment - Stewardship Program activities, and to seek feedback on program and needs as well as the perceived value of proposed or completed projects. PgDT members also attend national and regional environmental stewardship-related workshops and conferences and foster partnering with federal, state, local and private entities.

7. Acquisition Strategy. The HQ USACE Environment – Stewardship Program Manager annually coordinates the Stewardship Program budget requests from the MSC. The Stewardship Program Manager recommends and provides justification for these annual budgets to the HQ USACE Environment Program Manager, Rennie Sherman. The Environment -Stewardship Program budget request is evaluated with consideration of the needs of the entire Civil Works Environment Program to determine priorities and final budget request to OMB.

8. Risk Analysis. Risk will be managed through the PgDT biannual reviews that include: progress evaluations, reassessment of priorities and resources when needed, and the inclusion of emerging issues. Additional meetings of individual Project Delivery Teams will be held as needed. Schedule, work products, and budget constraints are the primary areas of concern.

9. Change Management Plan. As mentioned in section 9 above, the PgDT meets twice annually to review program goals and objectives, obtain status reports on assigned tasks, and to make necessary schedule and program adjustments. Significant

changes in the priorities, goals and objectives of the Stewardship Program or the PgDT will be coordinated with the CoP for impact analysis and input.

10. Communications Strategy. A variety of communications techniques are used to provide information to and obtain feedback from the Stewardship CoP, and from Stewardship stakeholders and partners. These techniques may be used to identify needs, to accomplish work and to share lessons learned. These include but are not limited to:

- Biannual PgDT meetings
- NRM Gateway – Including “good enough to share” and focus area development workshops
- Periodic HQ Civil Works Environment Program strategy briefs
- PgDT member support of national and regional workshops, conferences, meetings, PDTs, etc.

11. Measurement of Program Success. The Environment - Stewardship Program performance goals and associated performance measures are listed in Section 1.10 and will be refined as needed.

12. References.

13.1. Engineer Regulation 5-1-11, U.S. Army Corps of Engineers Business Process.

13.2. Engineer Regulation 1130-2-500, Project Operations, Partners and Support (Work Management Policies).

13.3. Engineer Pamphlet 1130-2-500, Project Operations, Partners and Support (Work Management Guidance and Procedures).

13.4. Engineer Regulation 1130-2-540, Project Operations, Environmental Stewardship Operations and Maintenance Policies.

13.5. Engineer Pamphlet 1130-2-540, Project Operations, Environmental Stewardship Operations and Maintenance Guidance and Procedures.

13.6. Engineer Regulation 1130-2-550, Project Operations, Recreation Operations and Maintenance Policies.

13.7. Engineer Pamphlet 1130-2-550, Project Operations, Recreation Operations and Maintenance Guidance and Procedures.

13.8. Section 4 of the Flood Control Act of 1944 gave the Corps specific authority to provide public outdoor recreation facilities at its projects and to enter into agreements with nonfederal public agencies for those purposes.

13.9. Forest Cover Act of 1960 provides for the protection of forest cover for reservoir areas under the jurisdiction of the Corps.

13.10. Federal Water Project Recreation Act of 1965 (Public Law 89-72) mandated that full consideration be given to outdoor recreation and fish & wildlife enhancement as equal project purposes.

13.11. Water Resources Development Act of 1986 (Public Law 99-662) prohibited the Secretary of the Army from requiring non-Federal interests to assume operation and maintenance of existing facilities as a condition for new recreation facility construction. Section 1135 authorized the Corps to plan, design and construct fish and wildlife habitat restoration measures involving structures or operations of a Corps project, or modification off-project when it is found that a Corps project has contributed to the degradation of the environment.

13.12. Water Resources Development Act of 1990 (Public Law 101-640) stated that any structural change should avoid adversely impacting recreational use even if that was not the original authorized purpose of the structure.

13.13. Water Resources Development Act of 1992 (Public Law 102-580) authorized entering into challenge cost share partnerships for operation and/or management and development of recreation facilities and natural resources.

13.14. Section 206 of the Water Resources Development Act of 1996 (Public Law 104-303) authorizes the Corps to undertake restoration projects in aquatic ecosystems such as rivers, lakes and wetlands. Section 208a directed the Secretary of the Army to provide increased emphasis on, and opportunities for recreation at, water resources projects operated, maintained, or constructed by the Corps of Engineers, and provide a progress report to Congress within 2 years.

13.15. Omnibus Parks and Public Land Management Act of 1996 (Public Law 104-333) authorized the National Recreation Lakes Study Commission that provided recommendations for federal stewardship.

13.16. Related Federal Environmental Laws such as Archeological and Historic Preservation Act, Clean Air Act, Clean Water Act, Endangered Species Act, National Environmental Policy Act, etc.

13. Program Management Plan Approvals. The Headquarters USACE Environment – Stewardship Business Program Manager (HQ Stewardship CoP Leader) is responsible for program oversight. The Stewardship PgDT will submit this PgMP to the Chief, Natural Resources Management , and Chief, Operations and Regulatory for approval. Following initial approval, this PgMP will be updated by the Stewardship PgDT with major changes or deviations approved by the Chief, Natural Resources Management .

Signatures of Program Delivery Team Members

Jeff Krause, Baltimore District

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Jonathan Davis, South Atlantic Division

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Phil Turner, South Pacific Division

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Angie Huebner, Jacksonville District

Maurice Simpson, Nashville District

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Calvin Foster, Sacramento District
District

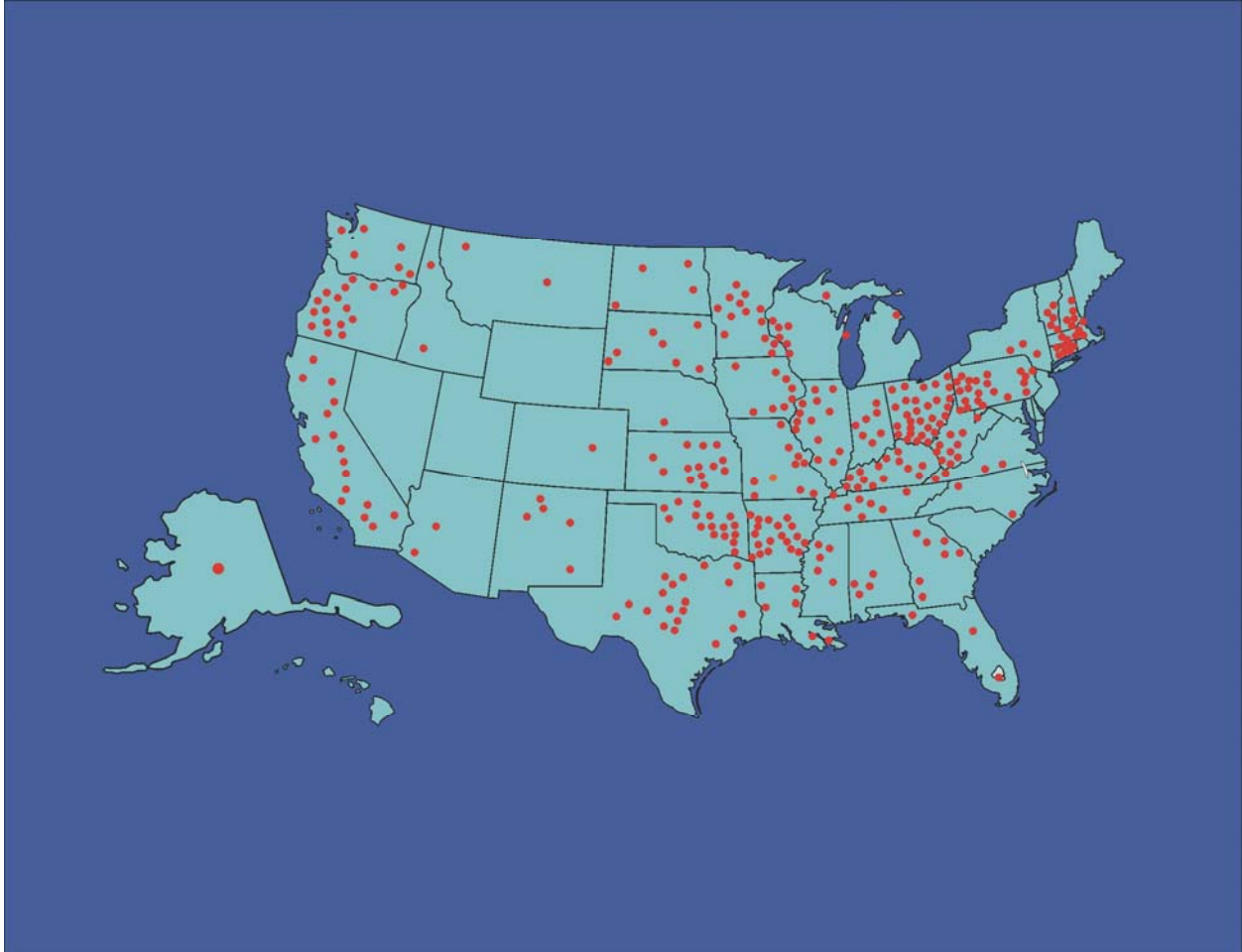
Scott Jackson, Engineer Research
& Development Center

Approved:

George E. Tabb Jr.
Chief, Natural Resources Management,
NRM CoP Leader

Michael B. White
Chief, Operations & Regulatory

Appendix A Distribution of Corps Lands & Waters



Appendix B

Natural Resources Management Mission Statement

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 public outdoor 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, 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 resource 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.

Appendix C

**EP 1130-2-540 – Environmental Stewardship and
Maintenance Guidance and Procedures**

**ER 1130-2-540 – Environmental Stewardship
Operations and Maintenance Policies**

<http://www.usace.army.mil/inet/usace-docs/eng-pamphlets/ep1130-2-540/basdoc.pdf>

<http://www.usace.army.mil/inet/usace-docs/eng-regs/er1130-2-540/entire.pdf>.

Appendix D

Environment-Stewardship Performance Measures

Appendix D-1
ENVIRONMENT - STEWARDSHIP
FY 06 PERFORMANCE MEASURE

PROGRAM GOAL: Manage natural resources to assure a healthy and sustainable condition, and fully integrate the Corps of Engineers Environmental Operating Principles (EOPs).

Key Result Areas: Program Results and Justification

Customer: Public

Measure: Percent of minimum Level One Natural Resources Inventory completed on Corps fee-owned real properties.

Fee Owned: Real property for which the U.S. has all right, titles, and interest rather than a partial interest.

Minimum Level One Natural Resources Inventory. The completion of Level One natural resources inventories at Corps Civil Works projects is required in accordance with ER 1130-2-540. For the purposes of this performance measure the minimum Level One natural resources inventory shall consist of the completion of four component items:

- Project vegetation acreage classification and quantification, in accord with the Federal Geographic Data Center *National Vegetation Classification System* (though sub-class level). See http://www.fgdc.gov/standards/status/sub2_1.html
- Project wetland acreage classification and quantification, in accord with the US Fish and Wildlife Service *Classification of Wetlands and Deepwater Habitats of the United States*. See http://wetlands.fws.gov/Pubs_Reports/Class_Manual/class_titlepg.htm
- Project land (soils) capability classification and quantification, as defined by the Natural Resources Conservation Service –Land Capability Classes. See www.nrcs.usda.gov/technical/land/meta/m6175.html
- Special Status Species (Federal and State listed endangered and threatened species) identification and assessment for potential existence on project acreage. See <http://endangered.fws.gov/wildlife.html> - [Species](#), and various State Natural Heritage sites.

Definition: The sum total number of acres of completed inventory for each component of the minimum Level One inventory (vegetation, wetlands, land capability and special status species), divided by four (4) times the total number of Corps fee owned acres. The proportion (percentage) yielded will be used to evaluate the relative completeness of the Level One Natural Resources Inventory.

Demonstrates: Status of Corps efforts in completing basic natural resources inventories which are necessary for sound resource management decisions and strategies development.

Unit of Output: Acres.

Data Source: Initial data call, OMBIL - data fields to be determined.

Appendix D-2
ENVIRONMENT - STEWARDSHIP
FY 06 PERFORMANCE MEASURE

PROGRAM 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: Program 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 Plans.

Data Source: Initial data call, OMBIL - data fields to be determined.

Appendix D-3
ENVIRONMENT - STEWARDSHIP
FY 06 PERFORMANCE MEASURE

PROGRAM GOAL: Manage natural resources to assure a healthy and sustainable condition and fully integrate the Corps of Engineers Environmental Operating Principles (EOPs).

Key Result Areas: Program Results and Justification

Customer: Public

Measure: Percent of healthy and sustainable acres on Corps fee-owned 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 right, titles, and interest rather than a partial interest.

Definition: *The number of Corps fee-owned acres classified a 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 land. 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 FY 05. 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 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: Initial data call, OMBIL - data fields to be determined.

Appendix D-4
ENVIRONMENT - STEWARDSHIP
FY 06 PERFORMANCE MEASURE

PROGRAM 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: Program Results and Justification

Customer: Public

Measure: Percent of Corps administered mitigation lands (acres) meeting the requirements in the authorizing legislation or relevant Corps of Engineers 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 decision.

Corps administered lands: Corps 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).

Demonstrates: Status of Corps efforts to meet mitigation requirements.

Unit of Output: Acres.

Data Source: Operational Management Plans, OMBIL - data fields to be determined.

Appendix E

Strategic Initiatives

Appendix E-1

DRAFT

Statement of Need

Master Plan Performance Measure

Task Group:

Don Wiese – Lead
Paul Peloquin
Gary Swenson
Phil Turner

1. Current Situation: During the first three meetings of the Stewardship Advisory Team (SAT) in 2002 – 03, the team identified threats and opportunities, goals and objectives, and draft performance measures applicable to the Environmental Stewardship business function. Outdated project master plans at the majority of operating Corps lakes was identified as a major threat which ultimately led the team to recommend adoption of a performance measure aimed at updating project master plans.
2. Problem Statement: Most of the approximately 460 operating Corps lakes are more than 20 years old (many are now 50 years old), and 80% are located near major cities where rapid urban growth and high demand for outdoor recreation opportunities is occurring. With few exceptions, the project master plans at these aging projects have not been updated. These master plans pre-date important environmental laws, executive orders, internal policy, and current master planning regulations. When confronted with critical land use decisions, Operations Managers must rely on the master plan as the basic guide in making those decisions. In the absence of a current and cogent master plan, the resulting decisions can, and in some cases have, resulted in unintended negative impacts to natural resources. Even if poor land use choices are avoided, the Corps is frequently placed in an awkward and defensive posture as we try to explain and defend an outdated master plan.
3. Problem Extent, Frequency, and Impact: Most operating Corps lakes have a master plan that sets forth a land and water classification plan, management objectives and, in many instances, a fairly detailed recreation development plan for intensive use park areas. Because these master plans are 20, 30, and 40 years old, the plans often include little or no information on cultural resources, endangered species, wildlife habitat value, jurisdictional wetlands, and other environmental features that have become critically important following the passage of landmark legislation such as the Clean Water Act and Endangered Species Act. The focus of these old master plans was primarily recreation development, perhaps out of necessity to address these needs on new or relatively new projects, with little attention given to

natural and cultural resources. Of primary concern is the rudimentary land classification system and the antiquated management objectives included in these old master plans. This obvious deficiency has been recognized by leadership for many years, but there has been reluctance to update master plans due to anticipated high costs to get the job done. Exacerbating the situation in some Corps Districts are internal “turf wars” over which office would be responsible for getting the work done. In many cases, the planning element has claimed responsibility, but the funding must come from O&M appropriations. The net result of these concerns and internal struggles has been a continuing reluctance to update master plans. It is the opinion of the SAT that these problems can be overcome and that it is imperative to begin updating our master plans on a reasonable schedule, with high priority lakes being updated first.

- 4. Proposed Solution:** The SAT believes that master plan updates should follow the requirements and guidelines set forth in ER and EP 1130-2-550. This guidance was originally published in 1986 as an engineer regulation and was then re-issued as an engineer regulation and engineer pamphlet as noted above in 1996. The guidance is considered by the SAT to be current and relevant. The spirit and intent of the master planning process is best stated in paragraph 3-4 of EP 1130-2-550, “Within a generalized conceptual framework, the process focuses on three primary components: (1) regional or ecosystem needs, (2) project resource capabilities and suitability, and (3) expressed public interests and desires.” Regarding cost effectiveness, the EP is clear that master plans must be “concise and designed for easy preparation, supplementation, and update”.

The SAT believes that the almost institutional mindset that master plans are prohibitively expensive to prepare is based largely on the historical attention given to elaborate and detailed plans, maps, and cost estimates associated with the initial recreation development on a project. According to the guidance contained in EP 1130-2-550, this level of detail and expense, particularly on master plan updates, is not required and should be avoided. Furthermore, with the advent of very affordable GIS technology, the preparation of maps required for land and water use classifications is no longer an expensive undertaking as it was only 10 years ago.

The advent of the PMBP process within the Corps is another reason why the update of a master plan should no longer be considered an insurmountable task. The SAT believes that the use of O&M appropriations, controlled and directed by the Operations element through the PMBP process, will result in cost efficiencies and effectiveness that has been difficult to achieve under past management processes.

Of critical importance to the SAT, is the need to have master plans which, first and foremost, promote the identification, protection, conservation, and sustainability of natural resources. Master plans should be documents that Operations Managers can rely on to help them make informed and wise decisions on land use proposals. To that end the SAT believes the most crucial elements in a master plan are as follows (not in order of priority):

5. Accurate Level 1 inventory of natural resources.
6. Land classification plan that protects wildlife habitat, environmentally sensitive areas, poor land capability classes, cultural resources, and scenic areas. It is the contention of the SAT that some currently designated, but undeveloped, intensive recreation areas should be considered for reclassification as multiple resource use areas with an emphasis on low density recreation and wildlife management.
7. Resource Management Objectives that reflect current public laws, national policy, agency policy (such as the Environmental Operating Principles), and expressed public needs and preferences. On many older lakes, where large parcels of land were originally designated for intensive recreation development, meaningful resource management objectives are needed to achieve a reasonable balance between recreation development and natural resource protection. These objectives are also needed to clarify the Corps' position with respect to non-mission-related land use proposals such as roads, communication towers, and utility lines.
8. With regard to the level of effort devoted to the recreation program analysis and the projection of future recreation use and facility requirements, the SAT believes that this effort does not need to include the preparation of detailed maps, layouts, design schematics, and cost estimates. This level of detail is not necessary in a master plan revision and should be accomplished by teams using the PMBP process only when the need arises. The important aspect of recreation program analysis in a master plan revision is to simply classify the lands to provide a balanced level of recreation development and resource protection.

The SAT has proposed a draft performance measure that would require Districts to update master plans in accordance with the guidance set forth in ER/EP 1130-2-540 and ER/EP 1130-2-550. To implement this performance measure the following tasks need to be done:

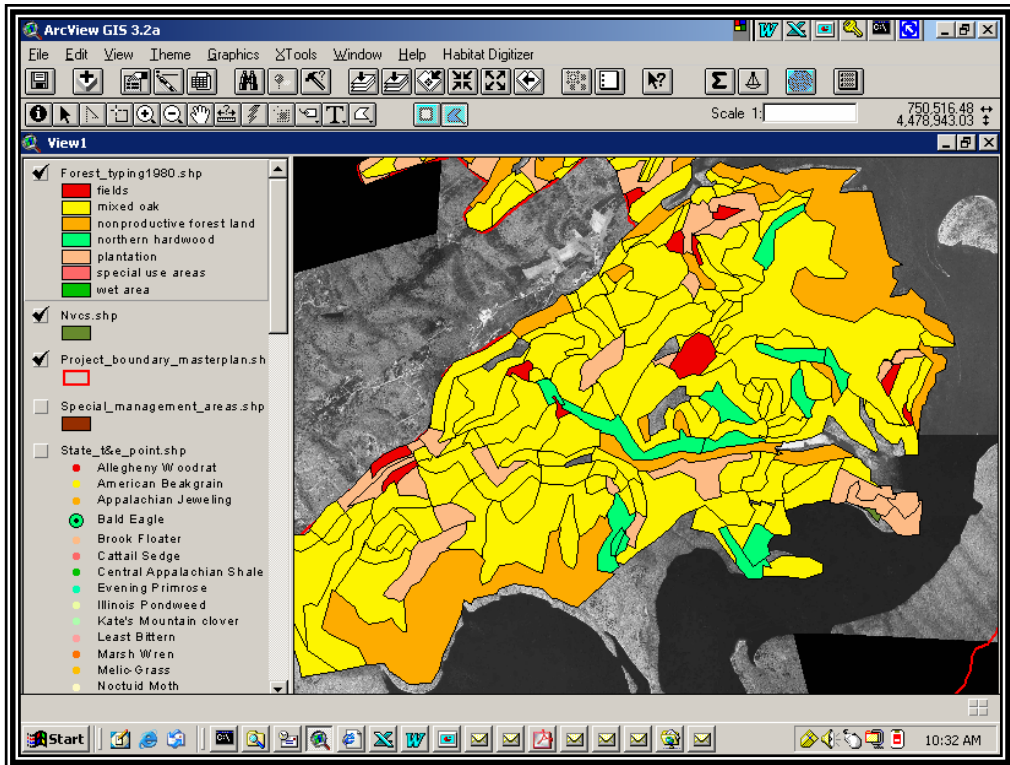
9. The specific details of this performance measure need to be published and disseminated to the Districts. Initially, the SAT projected a 10-year time frame to achieve needed updates, but as of the writing of this Statement of Need, the exact wording of the performance measure is still being debated.
10. A nationwide data may be needed to determine how many master plans do not reflect the guidance set forth in EP 1130-2-540. As part of this data call, the SAT must provide a synopsis of the most important elements of the EP guidance to

insure that data reported by the Districts is done so in a consistent manner. The data call will result in the establishment of a baseline level of compliance with the performance measure.

- 11. Desired End-State:** The Master Plan Performance Measure will be acceptable to Corps leadership and OMB. The need for Master Plan updates will be clearly articulated to the Districts, encouraging them to take action to begin updating their most critically deficient master plans.

Appendix E-2

DRAFT
Statement of Need
Level One Natural Resource Inventories



Recommended to
Denise White
HQ Natural Resources Management

Prepared By
Stewardship Advisory Team
Stewardship Support Program

Statement of Need **Natural Resource Inventory**

Table of Contents

1. Current Situation.....	2
2. Problem Statement.....	2
3. Problem Extent, Frequency and Impact.....	3
4. Proposed Solution	3
5. Desired End State.....	5

Sub Appendices

Sub-Appendix A Fact Sheet Natural Resources Level One Inventories

- Attachment 1 - Worksheet for Calculating Inventory Performance Measure
- Attachment 2 - Core Components of the National Vegetation Classification System
- Attachment 3 - Definition of NRCS Land (Soils) Capability.
- Attachment 4 - U.S. Fish and Wildlife Service NWI Wetland Classification

Sub- ppendix B Civil Works Environmental (Stewardship) Performance Measure for Level One Inventory

Sub-Appendix C Fact Sheet -- Project Lands and Waters Natural Resources Condition Assessment.

Sub-Appendix D Civil Works Environmental (Stewardship) Performance Measure for Condition of Project lands and Waters .

Sub-Appendix E Current EMRRP work for Natural Resources Level One Inventories. (Chester Martin)

DRAFT
Statement of Need
Natural Resource Inventory

Working Group: Jeff Krause Proponent
 Paul Peloquin
 Don Wiese
 Gary Swenson

1. Current Situation

The Stewardship Advisory Team was established in accordance with Chapter 7 of ER 1130-2-540 to provide guidance on national programs and policy to improve Environmental Stewardship of Corps lands and waters. In accordance with ER 1130-2-540, section 2-2.c(1), natural resources inventories are to be conducted at Corps civil works projects to provide quantitative and qualitative data for use in determining resource management needs. Level one natural resource inventories are of a general nature and are to be conducted to provide baseline information for Master Plan and initial Operational Management Plan development purposes. Level one inventory data will be used to support the resource objectives and land use classifications of the Master Plan.

The completion of a Level One inventory has not been accomplished at a majority of operating Corps projects, and where inventory work has been done consistent standards have not been used.. The adoption of a consistent Level One inventory, especially a consistent vegetation classification system, for all projects will allow for the identification of trends and needs which will be directly tied to performance measures and professional stewardship of Corps lands. The completion of Level one inventories is critical to understanding the significance of Corps-managed natural resources, and ultimately the value of these resources to the nation. Without consistent inventories, management priorities and funding may not be directed where most needed.

Funding to accomplish inventory and management has been identified as an issue and a challenge to the natural resources community and this scope of work attempts to identify problems and solutions for implementation. Linking the inventory to performance measures and budget process will also raise the priority of the stewardship mission and allow for more meaningful budget requests.

2. Problem Statement:

Several issues have made the lack of level one inventories at Corps projects a critical issue. First, if the Corps does not know what resources exist, it is impossible to manage them properly.

Secondly, there has been no attempt to implement standard and consistent inventory methodology throughout the Corps. Therefore, projects that have completed level one data have collected information ranging from breeding songbird checklists to general cover types. Without consistency, processing the data at a national level is impossible. Finally, how can the Corps measure its success in sustaining or improving the environment without a standard and consistent inventory. Improvements cannot be demonstrated without the baseline information which a Level One inventory would provide. The absence and inconsistencies of inventories have set a stage where managers throughout all levels of command are setting priorities not based on the needs of the resources. Completed and consistent inventories would assist in the programmatic identification of high priority items such as the decline of critical species and the spread of invasive species. A full implementation of a consistent inventory would also assist the Corps in conveying their story to the public and representing ourselves as a good environmental steward.

3. Problem Extent, Frequency, and Impact:

Since inventory standards have not been implemented nationwide, many districts and projects have developed their own levels of inventory for their specific project needs. The quality of these inventories varies widely and has led to confusion on the definition of the different types of inventory and applicability to a national standard. Currently, there is no national standard implemented that would allow information to be rolled up into a national view of the state of the Corps natural resources.

The use of a standard system nation-wide will permit the evaluation of Corps lands on a national basis and allow for consistent upward reporting. The establishment of the this national Level I does not preclude individual projects from completing site specific level I inventories or developing more detailed data for management of site specific resources.

This issue has become more critical in recent years as the majority of Corps lands are experiencing the stress of urban sprawl. In some cases the Corps lands represent the only open space, or “island of green” in a sea of human development. An inventory is critical to insure protection of the remaining habitat for enjoyment of the public and protection of many species of wildlife.

Although the need for the inventory is clear, the ability to implement the process with limited specialized staff, focus of management on other priorities, and the time involved to complete the inventories will present a challenge.

4. Proposed Solution:

The SAT believes that professional natural resources management must be tracked and monitored through a consistent inventory protocol and related performance measure that would be implemented nationally. The Level One inventory will be based on four basic, nationally recognized, information data sets including vegetation cover (National Vegetation Classification System), soils capability (USDA), species of special status (USFWS and State DNR's) and

wetlands (USFWS). Within the vegetation cover types data set, projects will be asked to assign a condition rating of sustainable, transitioning, degraded or non-assessed. As inventories are completed, the projects and higher authority will be able to better understand the condition and health of Corps lands and to respond appropriately to the resources and problems occurring on Corps lands.

These data sets use high order national classification systems utilized by other federal land management agencies and will provide an indicator of environmental health across all Corps fee title lands. The SAT has proposed two draft performance measures that will monitor the progress of inventory completion and provide a general condition description that would track the health of the lands. To implement these performance measures the following tasks need to be done:

- Acceptance of the two proposed performance measures by OMB and higher Corps authority.
- A nationwide data call to provide baseline data for each performance measure to occur in FY05 for input into FY06 budget process.
- Incorporation of the related fields and data into the OMBIL system during FY05, which will allow the performance measures to be calculated automatically in OMBIL.
- Dissemination of fact sheets, definitions and manuals that will describe the Level One inventory process in detail and promote consistency in its application and reporting. Much of this would be accomplished by including a page on the Gateway website dedicated to performance measures and providing links to appropriate documents.
- Development of tools to allow field personnel to collect and summarize data more rapidly. Initially fund some basic GIS tools with SAT funds and continue to work with ERDC geospatial unit for potential expansion and refinement of the tools.
- Work jointly with ERDC EMRRP for assistance with Inventory development and implementation. Utilize EMRRP extensive experience in habitat and species research to develop a connection between inventory results and research to provide management recommendations.
- Through questionnaires, surveys or data calls define audience and points of contact of personnel from each project that would be involved in collecting level one inventory.
- Development of train the trainer workshops, web-cast or courses that will train field employees in the Level One inventory process and promote consistency in the reporting.

5. Desired End-State:

The inventory process has many benefits including the following desired outputs:

- An information system in OMBIL that provides real time reporting of the current completion of Level One inventory across the nation.
- An information system in OMBIL that provides real time reporting of the ecological condition and health of assessed lands across the nation.
- A better understanding of the Corps Natural Resources at all management levels in areas such as vegetation cover types, soil properties, wetland composition, special status species and basic health condition.
- Based on results and trends of the inventory elements, national management and research priorities can be established. At the project level, land use proposals such as road and utility easements and recreational developments can be more quickly evaluated and resulting decisions made more defensible.
- Better informed staff able to respond professionally to the needs of the resource
- Ability to share natural resources information with stakeholders, partners and other professionals.

Appendix E-2 (sub Appendix A)

FACT SHEET NATURAL RESOURCES LEVEL ONE INVENTORIES

The following performance measure has been established to steer environmental stewardship activities and budget considerations for FY06.

Measure: Percent of minimum Level One Natural Resources Inventory completed on Corps fee-owned real properties.

This measure is one of three new performance measures utilized to track performance and set budget considerations for Environment -Stewardship programs.

In accordance with ER 1130-2-540, section 2-2.c(1), natural resources inventories are to be conducted at Corps civil works projects, to provide quantitative and qualitative data for use in determining resource management needs. Level one natural resource inventories are of a general nature and will be conducted to provide baseline information for MP purposes. Level one inventory data will be used to support the resource objectives and land use classifications for the Master Plan. The establishment of Level one inventories is important to understand the natural resources and their significance and value to the nation.

For the purposes of this performance measure, the minimum Level One natural resources inventory standard includes:

- Project vegetation acreage classification and quantification, in accord with the Federal Geographic Data Committee (FGDC) *National Vegetation Classification System (NVCS)* (though sub-class level -attachment 2)
- Project wetland acreage classification and quantification, in accord with the U.S. Fish and Wildlife Service *Classification of Wetlands and Deepwater Habitats of the United States*, by L.M. Cowardin, V. Carter, F. Golet, and E. LaRoe. 1979, . 103 pp. (Attachment 3)
- Project land (soils) capability classification and quantification, as defined by Natural Resources Conservation Service–Land Capability Classes (Attachment 4)

Special Status Species (Federal and State listed endangered and threatened species and invasive species) identification and assessment for potential existence on project acreage.

Each project should evaluate their current Level one natural resources inventory and determine if it meets the core requirements of the Minimum Level One inventory. If the core requirements as shown in the attached tables are not present, the reporting would be zero (0) acres, regardless of other inventories or other vegetation or forest coverages and inventories that have been completed. Only report acres where the current data are mapped or described in the NVCS or

USFWS wetlands classification system format and also include evaluation of soil capability classes, and known special status species. The project is not limited to any specific database or GIS tool to return results for these fields. Any metrology where the appropriate minimum fields above can be identified and raw data inputted into the calculations are acceptable. A worksheet is attached for calculations (Attachment 1).

The project should consider the budgetary needs for accomplishing the minimum Level One inventory on the acreage of the Corps fee lands only. The inventory could be accomplished through GIS activities or other mapping procedures

Appendix E-2 (Attachment 1 of Sub-Appendix A)

Worksheet for calculating Natural Resources Inventory Performance Measure.

The following is an example worksheet for the performance measure to be used for the budget FY 06 budget exercises. The implementation of OMBIL ES module will result in an automated performance measure roll-up from fields entered into OMBIL screens.

Total Project acreage in Fee-owned lands. Includes those lands leased or licensed to other agencies or managers.
(1) _____ ac.

Acres of project fee-owned lands classified under the National Vegetation Classification System (NVCS) (2) _____ ac.

(1) _____ divided by (2) _____ = (3) _____ percent acres inventoried for vegetation.

Acres of project fee-owned lands where wetlands are inventoried and classified in accordance with the USFWS (Cowardin) Classification of Wetlands and Deep Water Habitats. (4) _____ ac.

(1) _____ divided by (4) _____ = (5) _____ percent acres inventoried for wetlands..

Acres of project fee-owned lands where land (soils) capability classes have been inventoried and identified. (6) _____ ac.

(1) _____ divided by (6) _____ = (7) _____ percent acres inventoried for land (soils) capability.

Acres of project fee-owned lands where special status species (species of concern including Federal or state listed threatened, endangered, **rare, exotic, nuisance, or invasive**) have been identified and inventoried. (8) _____ ac.

(1) _____ divided by (8) _____ = (9) _____ percent acres inventoried for potential presence of special status species.

((3) _____ plus (5) _____ plus (7) _____ plus (9)) _____ divided by (4 times (1) _____ = _____ Percent of Corps lands where minimum level one inventories have been completed in accordance with established standards (Performance Measure).

Appendix E-2 (Attachment 2 of Sub-Appendix A)

Table 1. Core components (through to sub-class level) of the National Vegetation Classification System (NVCS)

Division	Class	Sub-class
Vegetated	Closed Tree Canopy	Evergreen Forest
		Deciduous Forest
		Mixed evergreen-deciduous
	Open Tree Canopy	Evergreen Forest
		Deciduous Forest
		Mixed evergreen-deciduous
	Shrubland	Evergreen Forest
Deciduous Forest		
Mixed evergreen-deciduous		
Dwarf Shrubland	Evergreen Forest	
	Deciduous Forest	
	Mixed evergreen-deciduous	
Herbaceous Vegetation	Perennial graminoid vegetation	
	Perennial forb vegetation Inc	
	Hydromorphic herbaceous -	
	Annual graminoid or forb veg	
Non-Vascular Vegetation	Bryophyte Vegetation	
	Lichen Vegetation	
	Alga	
Non-Vegetated	Sparse Vegetation	

Appendix E-2 (Attachment 3 of Sub-Appendix A)

Definition of Land (Soils) Capability Classes for use in Level One Natural Resources Inventories.

Land capability: The suitability of land for use without permanent damage. Land capability, as ordinarily used in the USA, is an expression of the effect of physical land conditions, including climate, on the total suitability for use, without damage, for crops that require regular tillage, for grazing, for woodland, and for wildlife. Land capability involves consideration of the risks of land damage from erosion and other causes and the difficulties in land use owing to physical land characteristics, including climate.

Land capability class: Eight classes of land in the land capability classification of the U.S. Natural Resource Conservation Service; Capability classes, the broadest groups, are designated by numerals 1 through 8. The numerals indicate progressively greater limitations and narrower choices for practical use and are distinguished according to the risk of land damage or the difficulty of land use; they include:

Class 1 soils have few limitations that restrict their use.

Class 2 soils have moderate limitations that reduce the choice of plants or that require moderate conservation practices.

Class 3 soils have severe limitations that reduce the choice of plants or that require special conservation practices, or both.

Class 4 soils have very severe limitations that reduce the choice of plants or that require very careful management, or both.

Class 5 soils are not likely to erode but have other limitations, impractical to remove, that limit their use.

Class 6 soils have severe limitations that make them generally unsuitable for cultivation.

Class 7 soils have very severe limitations that make them unsuitable for cultivation.

Class 8 soils and miscellaneous areas have limitations that nearly preclude their use for development or cultivation.

Appendix E-2 (Attachment 4 of Sub-Appendix A)

Wetland Classifications using the USFWS (Cowardin) Classification of Wetlands and Deep Water Habitats.

<u>System</u>	<u>Sub-system</u>	<u>Class</u>
Marine	Subtidal	Rock Bottom
Marine	Subtidal	Unconsolidated Bottom
Marine	Subtidal	Aquatic Bed
Marine	Subtidal	Reef
Marine	Subtidal	Open Water/Unknown Bottom
Marine	Intertidal	Aquatic Bed
Marine	Intertidal	Reef
Marine	Intertidal	Rocky Shore
Marine	Intertidal	Unconsolidated Shore
Estuarine	Subtidal	Rock Bottom
Estuarine	Subtidal	Unconsolidated Bottom
Estuarine	Subtidal	Aquatic Bed
Estuarine	Subtidal	Reef
Estuarine	Subtidal	Open Water/Unknown Bottom
Estuarine	Intertidal	Aquatic Bed
Estuarine	Intertidal	Reef
Estuarine	Intertidal	Streambed
Estuarine	Intertidal	Rocky Shore
Estuarine	Intertidal	Unconsolidated Shore
Estuarine	Intertidal	Emergent Wetland
Estuarine	Intertidal	Scrub-Shrub Wetland
Estuarine	Intertidal	Forested Wetland
Estuarine	Intertidal	Open Water/Unknown Bottom
Riverine	Tidal	Rock Bottom
Riverine	Tidal	Unconsolidated Bottom
Riverine	Tidal	Aquatic Bed
Riverine	Tidal	Streambed
Riverine	Tidal	Rocky Shore
Riverine	Tidal	Unconsolidated Shore
Riverine	Tidal	Emergent Wetland
Riverine	Tidal	Open Water/Unknown Bottom
Riverine	Lower Perennial	Rock Bottom
Riverine	Lower Perennial	Unconsolidated Bottom
Riverine	Lower Perennial	Aquatic Bed
Riverine	Lower Perennial	Rocky Shore
Riverine	Lower Perennial	Unconsolidated Shore
Riverine	Lower Perennial	Emergent Wetland
Riverine	Lower Perennial	Open Water/Unknown Bottom
Riverine	Upper Perennial	Rock Bottom
Riverine	Upper Perennial	Unconsolidated Bottom
Riverine	Upper Perennial	Aquatic Bed
Riverine	Upper Perennial	Rocky Shore
Riverine	Upper Perennial	Unconsolidated Shore
Riverine	Upper Perennial	Open Water/Unknown Bottom
Riverine	Intermittent	Streambed
Lacustrine	Limnetic	Rock Bottom
Lacustrine	Limnetic	Unconsolidated Bottom
Lacustrine	Limnetic	Aquatic Bed
Lacustrine	Limnetic	Open Water/Unknown Bottom
Lacustrine	Littoral	Rock Bottom
Lacustrine	Littoral	Unconsolidated Bottom

Lacustrine	Littoral	Aquatic Bed
Lacustrine	Littoral	Rocky Shore
Lacustrine	Littoral	Unconsolidated Shore
Lacustrine	Littoral	Emergent Wetland
Lacustrine	Littoral	Open Water/Unknown Bottom

Palustrine	NO SUB-CLASSES	Rock Bottom
Palustrine		Unconsolidated Bottom
Palustrine		Aquatic Bed
Palustrine		Unconsolidated Shore
Palustrine		Moss-Lichen Wetland
Palustrine		Emergent Wetland
Palustrine		Scrub-Shrub Wetland
Palustrine		Forested Wetland

Appendix E-2 (Sub-Appendix B)

CIVIL WORKS ENVIRONMENT (STEWARDSHIP) PERFORMANCE MEASURES - FY 06

PROGRAM GOAL: Manage natural resources to assure a healthy and sustainable condition, protect and preserve cultural resources and historic properties, and fully integrate the Corps of Engineers Environmental Operating Principles (EOPs).

KRAs: Program Results and Justification

Customer: the Public

Measure: Percent of minimum Level One Natural Resources Inventory completed on Corps fee-owned real properties.

a. Fee Owned: Real property for which the U.S. has all right, titles, and interest rather than a partial interest.

b. Minimum Level One Natural Resources Inventory: The completion of Level One natural resources inventories at Corps Civil Works projects is required in accordance with ER 1130-2-540. For the purposes of this performance measure the minimum Level One natural resources inventory shall consist of the completion of four component items:

- Project vegetation acreage classification and quantification, in accord with the FGDC *National Vegetation Classification System* (though sub-class level). See HYPERLINK "http://www.fgdc.gov/standards/status/sub2_1.html"
http://www.fgdc.gov/standards/status/sub2_1.html
- Project wetland acreage classification and quantification, in accord with the USFWS *Classification of Wetlands and Deepwater Habitats of the United States*. See HYPERLINK "http://wetlands.fws.gov/Pubs_Reports/Class_Manual/class_titlepg.htm"
http://wetlands.fws.gov/Pubs_Reports/Class_Manual/class_titlepg.htm
- Project land (soils) capability classification and quantification, as defined by the NRCS–Land Capability Classes. See HYPERLINK "<http://www.nrcs.usda.gov/technical/land/meta/m6175.html>"
www.nrcs.usda.gov/technical/land/meta/m6175.html
- Special Status Species (Federal and State listed endangered and threatened species) identification and assessment for potential existence on project acreage. See HYPERLINK "<http://endangered.fws.gov/wildlife.html>" \l "Species"

<http://endangered.fws.gov/wildlife.html> - Species and various State Natural Heritage sites.

Definition: *The numerator shall be* the sum total number of acres of completed inventory for each component of the Minimum Level One inventory (vegetation, wetlands, land capability and special status species), *divided by the denominator which shall be* four (4) times the total number of Corps fee owned acres. The proportion (percentage) yielded will be used to evaluate the relative completeness of the Level One natural resources inventory.

Demonstrates: Status of Corps efforts in completing basic natural resources inventories which are necessary for sound resource management decisions and strategies development.

Unit of Output: Acres.

FY 06 Target: 10% of Corps fee owned land with completed minimum Level One natural resources inventory.

Data Source: Initial data call, OMBIL - data fields to be determined.

Appendix E-2 (Sub-Appendix C)

FACT SHEET **PROJECT LANDS NATURAL RESOURCES** **CONDITION MEASURE**

The following performance measure has been established to steer FY06 budget considerations for environmental stewardship activities:

Percent of healthy and sustainable acres on Corps fee-owned property.

This measure is one of three-performance measures utilized to track performance and set budget considerations for Environment-Stewardship business program. The other two concern the completion of master plans and level one inventories.

This “condition” measure is intended to provide a basic measure that is results- based rather than process oriented, and allows for budget consideration to maintain existing levels of stewardship. Having an index of “the state of health” for Corps lands will provide a measure of the level or amount of stewardship activities necessary to maintain or improve the condition of the lands. This measure is consistent with the Natural Resources Management mission that is *“to manage and conserve those natural resources, consistent with ecosystem management principles, while providing quality public outdoor recreation experiences to serve the needs of present and future generations”*. The measure aligns with the Corps Environmental Operating Principles, first and foremost - “Strive to achieve Sustainability”. The measure is also consistent with the recently established Vision and Goals of the Stewardship business program as recommended by the Stewardship Advisory Team (SAT- [link to web site](#)).The performance results data would be derived from an assessment of project lands based on overall condition

The different classes of condition are described below. The descriptions are intended to be general but distinct enough to provide some consistency between information collected at different projects. It is understood that this data is qualitative and subjective. Assessing the health of project lands is dependent on numerous factors and results may vary based on the assessor. However, having a qualitative assessment of health based on a general standard completed by person(s) responsible for daily management of the project will translate into a national indicator of the status of health of Corps lands by those who care for them.

It is recommended that personnel familiar with the lands, or personnel that can spend some effort visiting and evaluating the lands against potential environmental factors and objectives of the project, complete the assessment. A list of example factors that may degrade the health of lands is provided in attachment 1. This list is not all encompassing but provides items to consider when attempting to evaluate the health of the lands. The severity of each factor could range from minimal to severe and must be considered in the assessment. As a general rule of thumb - if a factor is not

impacting the long-term health, the lands would be *sustainable*. If the factors are degrading the lands but typically are treated, controlled or managed within operational procedures, the lands would meet the *needs improvement* category. Factors that are degrading lands to the point where the system is not functioning normally within existing operations would be *degraded*. These lands would represent the lands that would be in most need of additional funding or partnerships to shift the trend toward a sustainable condition.

Numerous Corps projects are without staff expertise to conduct the condition assessments. This task may be accomplished by contract, partner agencies/organizations, universities, or other professional methods. This measure will eventually be tracked using OMBIL. A data field included in the condition measure will capture those acres that are “non-assessed”. This category will be utilized until the project determines the condition of Corps acreage or effective ways to assess the condition of land. Attachment 2 provides an example of how the results would be evaluated by a project to evaluate budget decisions.

Definitions of Land Conditions:

Healthy and sustainable --meets desired state - the community unit is not significantly impacted by any factors and meets operational goals and objectives. These lands are considered healthy and sustainable for future generations. Although minor practices may be required to maintain the health, no serious or immediate threat exists that would change the health of the community.

Transitioning - does not meet desired goals - the community unit is impacted by human or other environmental factors that prevents the community unit from meeting desired goals outlined in the project OMP or other management plan. At this level the desired goals are expected to be obtained by minor reallocations in O&M funds, work priorities or through new partnerships or programs.

Degraded or imperiled - does not meet desired goals - the community unit is significantly impacted by human or other environmental factors that prevents the community unit from meeting desired goals outlined in the project OMP or other management plan. Without immediate actions the community unit may degrade beyond recovery or spread and cause significant damage to surrounding communities.

Not assessed--the community units have not been mapped according to the Level I inventory guidelines or the units have not been assessed against operational goals and objectives and thus a condition rating can not be determined. It is unknown whether additional funding is required to maintain or improve these areas, however, it may be apparent that funding would be needed to conduct the inventory or the assessment of the condition. This condition may persist if staff and resources are not present at the site and outside District, other agency or contract personnel may be required to perform assessments.

Appendix E-2 (Attachment 1 of Sub-Appendix C)

Example factors are provided that may degrade or lower the health of lands. When these factors exist in a community, where current resources are unable to manage them to a desired state, the community is no longer considered sustainable. Factors that are widely distributed or occur at severe amounts would cause the community to be degraded.

<u>Code</u>	<u>Description</u>
-------------	--------------------

- | | |
|----|--|
| a. | Vegetative structure, age class, diversity, regeneration or composition does not meet stated goals.
Examples: <ul style="list-style-type: none">• Forest stands are not well stock or are comprised of non-desirable species.• Stands do not exhibit well-developed under-story and regeneration for forest type due to deer damage or acid deposition.• Invasive species are dominating a stratum of vegetation. |
| b. | Vegetation is infested or impacted by a pest, disease, virus or fungus that threatens to cause devastation across the unit without immediate treatment. |
| c. | Invasive species or non-native species are present and dominate the community or threaten the integrity of the unit.
Examples <ul style="list-style-type: none">• Wetland community is infested with purple loosestrife thereby affecting diversity.• Shrubland is threatened by invasive species such as multiflora-rose. |
| d. | Human development activities, visitors or other public actions threaten the long-term sustainability of the unit. |
| e. | Problem wildlife species such as deer, nutria, beaver, or zebra mussels are negatively impacting the unit to a point where sustainability is not possible without intervention. |
| f. | Watershed properties to include poor water quality or sedimentation are causing significant degradation to the unit. |
| g. | Special habitat features such as wetlands, seeps, riparian habitat, unique geological features, and species of special status are not protected in this unit. |
| h. | The soil structure is not capable of supporting the current use. |
| i. | The vegetation composition is not appropriate for the desired landscape goals of the project.
Example: loss of grasslands to shrublands. |

Appendix E-2 (Attachment 2 of Sub-Appendix C)

Example Budget Exercise.

Type	Acreage	Healthy or sustainable	Needs Improvement	Degraded or imperiled	Not Assessed
Deciduous Closed tree canopy	200	0	50	100	50
Evergreen closed tree canopy	200	100	100	0	0
Mixed Shrubland	200	0	0	200	0
Total	600	100	150	300	50

Percent of acres project lands that are Healthy and Sustainable – 30 percent

Project cost to maintain at current Level -- \$ 250,000

OMB goal – 5 percent increase.

Project cost to increase healthy lands by 5 percent -- \$ 90,000

30 acres or \$ 3,000 per acre

If you only receive \$100,000 total may expect a decrease in acreage that is healthy.

Appendix E-2 (Sub-Appendix D)

**CIVIL WORKS
ENVIRONMENT (STEWARDSHIP)
PERFORMANCE MEASURES - FY 06
FOR NATURAL RESOURCES CONDITION.**

PROGRAM GOAL: Manage natural resources to assure a healthy and sustainable condition, protect and preserve cultural resources and historic properties, and fully integrate the Corps of Engineers Environmental Operating Principles (EOPs).

KRAs: Program Results and Justification

Customer: the Public

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

a. Sustainable: Meets the desired state. The acreage is not significantly impacted by any factors that can be managed and 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”.

b. Fee Owned: Real property for which the U.S. has all right, titles, and interest rather than a partial interest.

Definition: *The result for this measure uses 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 land. The National Vegetation Classification System (NVCS) is the system that the Corps has adopted for the level one inventory and the vegetation classes will be the reference unit for which the condition will be assigned. The NVCS data collection will be supported in the stewardship portion of OMBIL beginning in FY 05. The measure of sustainable acres should use the NVCS if the Corps fee lands have been classified using the NVCS. Many projects have used other vegetative classification systems and these systems may be used to support the information needed for the FY 06 reporting. Each project will need to identify and categorize their project fee-owned acres into the four following categories.*

a. Sustainable- *– meets desired state – the acreage is not significantly impacted by any factors that can be managed and meets operational goals and objectives set out in project OMP or other applicable management document. These acres are considered healthy*

and sustainable for future generations. Minor 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 document.

d. Not Assessed – the acreages have not been assessed against operational goals and objectives and thus a condition rating cannot be determined.

Demonstrates: Status of Corps efforts in achieving its goal for 100 percent Environmental Sustainability.

Unit of Output: Acres.

Start-up Target: 25% of Corps fee-owned acres in healthy and sustainable condition.
(Baseline to be determined)

Data Source: Initial data call, OMBIL - data fields to be determined.

APPENDIX E-3

Natural Resources Inventory Research & Development

PROGRAM: Ecosystem Management and Restoration Research Program

FOCUS AREA: Environmental Stewardship

WORK UNIT TITLE: Development of Natural Resources Inventory and Protocol for Determining the Occurrence of Special Status Species on Operating Projects

PERFORMING LAB: EL, ERDC

PI: Chester O. Martin

PROBLEM: ER 1130-2-540, section 2-2.c(1) mandated that natural resources inventories be conducted at Corps of Engineers Civil Works projects in order to provide quantitative and qualitative data for use in determining resource management needs. Completion of Level I inventories is critical to assessing habitat quality and establishing performance measures at operational projects nationwide. However, Level I inventories have not been completed in any consistent fashion at the majority of Corps projects. Recent changes in Environmental Stewardship Policy established vegetation communities will be identified by the NVCS protocol, wetland communities by NWI protocol and land capability by NRCS protocol. A consistent protocol for determining the occurrence of Special Status Species must be developed to satisfy Corps Level I inventory needs.

OBJECTIVE: This one-year effort will identify and develop a nationwide inventory protocol to determine Special Status Species (SSS) on operational projects. Information datasets under consideration will include existing information of SSS available to operating projects and a means to prove its occurrence when tentatively thought to exist at a particular project.

BACKGROUND: The Corps of Engineers SAT has recently developed a Statement of Need for natural resource Level I Inventories on project lands. A major concern is the lack of information on existing natural resources (including acreages of habitat types, land capabilities and species occurrence) on many projects. Without this essential baseline data, the Corps is limited in its ability to effectively manage its resources and to establish appropriate management objectives. In FY03 the SAT established that proper management must be tracked and monitored through a consistent inventory protocol and related performance measure that would be implemented nationally.

RESEARCH PLAN: The SAT has established the following basic information datasets for Level I inventories: (1) vegetation cover using the National Vegetation Classification System, (2) soils capability, using NRCS Land Capability Classes (3) wetlands, using the USFWS Cowardin classification system and (4) species of special status (method presently undetermined). The task is to determine the procedure to be followed in identifying the

occurrence of Special Status Species (SSS) on any particular project. The end product for this one-year effort will be a written protocol into the conduct of such a procedure. A report of findings will be presented to the SAT and an information exchange bulletin article written on components and procedure used to conduct Level I inventories.

BENEFITS: Under 1130-2-560, all operational projects are required to conduct Level I inventories to provide information for the development of Master Plans/Operational Management Plans to provide the proper stewardship of Corps lands. A standardized and consistently applied protocol will provide managers with the ability to effectively address issues such as declining quality of terrestrial and aquatic resources, impacts of regional development, spread of invasive species, and habitat losses. Managers will have the information needed to assess the status and functional significance of natural resources, develop management objectives, and evaluate Business Program Management effectiveness through the use of metrics presented in Environmental Stewardship Performance Measures.

ACCOMPLISHMENTS:

Presentation on natural resource inventories at the Corps of Engineers Stewardship Advisory Team Fall Meeting, San Diego, CA	11/14/03
Coordination with Stewardship Advisory Team on the inventory work unit	02/04/04

MILESTONE/PRODUCT SCHEDULE:

Presentation at Stewardship Advisory Team fall meeting, San Diego, CA	11/14/03
White paper on recommendations for inventory of special status species	06/15/04
Presentation at Stewardship Advisory Team meeting, Boston, MA	06/15/04
Report of findings and recommendations to the Stewardship Advisory Team	08/31/04
IEB – Level 1 inventories: What are the needs for Corps projects?	09/30/04

COST ESTIMATE:

	<u>FY04</u>
INHOUSE	45
CONTRACTUAL	5
 TOTAL	 50

APPENDIX E-4

Prairie Grasslands R&D

PROGRAM: Ecosystem Management and Restoration Research Program

FOCUS AREA: Environmental Stewardship

WORK UNIT TITLE: Prairie/grassland Ecosystems on Corps Administered Water Resources Development Projects

PERFORMING LAB: EL, ERDC

PI: Chester O. Martin

PROBLEM: Prairie ecosystems are an important consideration relevant to many Corps of Engineers Districts. Prairie grasslands contribute significantly to the control of non-point source-pollution, and both ground and surface water that drains through prairie regions can affect the performance of flood control, navigation, and hydropower projects. The operation and maintenance of Civil Works projects may regionally affect the distribution and character of prairies, thus the Corps shares stewardship responsibility of prairie ecosystems with other land management agencies. The value of these ecosystems to the nation and the Corps must be defined in order to incorporate prairie considerations into the execution of its stewardship responsibilities.

OBJECTIVE: This one-year effort will (1) establish the importance of prairie/grassland ecosystems to the Nation on Corps administered operating projects and identify the approximate acreages under administration, (2) outline the Corps potential role in prairie management and identify any opportunities for further Corps involvement and (3) identify potential out-year research that would benefit the Corps in prairie management.

BACKGROUND: Native prairies presently comprise less than 3 percent of their original acreage in the United States, and remaining patches are small, fragmented and isolated. Agricultural conversion, urban development and encroachment, fire suppression, and spread of invasive species have all contributed to the loss of native prairie. Many of the wildlife species that depend on prairie habitats have experienced serious population declines due to the deterioration and fragmentation of prairie grasslands. Prairie remnants suffer from isolation and restricted gene exchange, which affects genetic viability and biodiversity. Many Corps lands contain patches of native and virgin prairie that would provide a significant contribution nationwide to protect these unique ecosystems. Corps Districts have been involved in prairie/grassland management since the mid 1970s. However, the first set of questions is how much native prairie is the Corps responsible for and how valuable is it?

RESEARCH PLAN: The one-year study will be initiated with a literature review and use of a data call to all Corps FOA to determine the importance and acreage of prairie ecosystems under Corps administration. Out-year research recommendations will be made to Stewardship

Advisory Team. The major product for this work will be the SAT presentation and a technical note as a publication and/or presentation at a professional conference.

BENEFITS: This work unit will establish the importance of prairie ecosystems as a stewardship responsibility for the Corps. The SAT presentation will outline the Corps role in prairie management and identify any opportunities for further Corps involvement.

ACCOMPLISHMENTS:

Presentation on Prairie/Grassland Ecosystems at the Corps of Engineers Stewardship Advisory Team Fall Meeting, San Diego, CA	11/14/03
Coordination with Stewardship Advisory Team proponent on the prairie restoration work unit	02/04/04

MILESTONE/PRODUCT SCHEDULE:

Presentation at Stewardship Advisory Team fall meeting, San Diego, CA	11/14/03
Coordination with Corps/other agency personnel	04/30/04
Presentation at Stewardship Advisory Team meeting, Boston, MA	05/18/04
Field visit to selected sites (e.g., Lake Georgetown, Milford Lake)	06/15/04
TN – Prairie Restoration and Management and the Corps of Engineers	09/30/04

COST ESTIMATE:

	<u>FY04</u>
INHOUSE	35
CONTRACTUAL	5
 TOTAL	 40

APPENDIX A – SUPPLEMENTAL INFORMATION

The need for prairie restoration has recently been highlighted as a Civil Works need from a water management perspective. However, Corps Districts have been involved with efforts to establish prairie habitats on their project lands since the mid 70's. For example, the Proceedings of the Sixth North American Prairie Conference contained a paper on establishment of native grasses on Corps projects in the Southwestern Division (Green, Sifuentes, and Martin 1978). This articles stated that the Corps encouraged establishment of native vegetation on its project lands primarily because native vegetation was more compatible with natural recreation facilities, and native plants were usually better adapted to harsh growing conditions. Examples of prairie and grassland vegetation establishment projects were described for the Albuquerque, Galveston, Fort Worth, and Tulsa Districts.

Examples of District actions to restore and manage prairie/grassland ecosystems are summarized below. Many other Districts are involved in prairie restoration to varying degrees, and almost all Districts are engaged in programs to control invasive species that have impacted prairie and rangeland habitats.

Kansas City District – Kansas City District has been restoring prairie ecosystems on their projects since the 1980s. Current records show that nearly 18,000 acres of native prairie are managed at Hillsdale, Kanopolis, Melvern, Milford, Perry, Pomona, Tuttle Creek, and Wilson projects (Mike Watkins, Kansas City District, pers. commun.).

Fort Worth District - The Fort Worth District is investigating the application of brush management and prairie restoration for improving water quality in degraded streams (Don Wiese and Marty Hathorn, Fort Worth District, pers. commun.). The District has also championed attempts to replicate native prairie sites at Lake Georgetown and Granger Lake. At Granger Lake, the Texas Parks and Wildlife Department, Native Prairies Association of Texas, and the Corps has cooperatively established a gene bank of disappearing local clones and has created one of the best prairie replication sites in the area (Carey Weber, Lake Georgetown, pers. commun.).

Portland/Seattle Districts - Portland and Seattle Districts are involved in grassland/sagebrush habitat management at several projects (e.g., John Day, Chief Joseph), and wet prairie management in the Willamette Valley (Paul Peloquin, Northwestern Division, pers. commun.)

Rock Island district - Rock Island District is restoring prairie habitat at Red Rock and Saylorville projects (Kenneth Barr, Rock Island District, pers. commun.).

New England District - New England District has converted agricultural areas to wet meadows on several projects (Gary Pelton, Upper Connecticut River Basin Project Office, pers. commun.).

APPENDIX E-5
Land Use Policy

Land Use Development Policy Background

Representatives from the Operations, Real Estate and Counsel Communities of Practice prepared a recreation land use development policy for Corps managed lands and waters. Guiding principles for the policy were: the final land use policy will represent a balance between the interests of all stakeholders; no adverse impacts to project operations missions and purposes; meet spirit of environmental operating principles; consistent with shoreline management policy; no change in the private exclusive use policy; encourage partnerships; and establish standardized evaluation criteria. Preparation of the policy including researching the past and current status of land use development and that information is hereby provided.

Water resources projects have been developed and managed by the Corps throughout the United States for a variety of uses and purposes, including navigation, flood control, hydroelectric power, water supply, water quality, recreation, fish and wildlife habitat, and conservation of natural, cultural, and historic resources. A key mission area involves stewardship responsibilities for the lands and waters managed by the Corps. This is critical, as it forms the backbone of protecting, preserving, and wisely using our finite natural resources. Lands and waters that comprise Corps projects were acquired with public funds and are managed and administered as a national resource.

Eighty percent of Corps projects are located near a major city. Because of the growth of these cities and their related suburbs, Corps-managed properties may offer the last vestiges of undeveloped land in a sea of urban sprawl, highly sought after by people wishing to pursue recreation as well as those seeking development opportunities. Over the years, development pressures and requests for use of public lands have increased tremendously. In many cases, these requests are not dependent on the associated Corps water resource project for viability (reasonable nexus), nor do they directly support or benefit authorized project purposes. Lands and waters that comprise Corps projects are part of the public estate. Accordingly, any actions taken on those lands and waters must be in the best long term interest and benefit of the general public and have their support (as determined by public meetings, NEPA Documents, surveys, etc). Therefore, it is crucial that the need for land use and development be balanced against the general public's present and future need for these lands. For example, several Corps projects are on major waterfowl migratory flyways, providing important resting, feeding, and breeding habitat for millions of ducks, geese, cranes, and other migratory waterfowl. If this habitat is severely altered or destroyed, over 360 species of Neotropical migratory birds could be significantly impacted as they move annually between their breeding grounds in North America, Central and South America, and the Caribbean.

The resulting policy follows. Note that it is jointly signed by the Operations and Real Estate Communities of Practice and will be issued for 1 year to allow for a determination of effectiveness before being added to appropriate Engineering Regulations.

Draft 9 Dec 2004

CECW-ZA/CEMP-CR

MEMORANDUM FOR: (SEE DISTRIBUTION)

SUBJECT: Recreation Outgrant Development Policy

1. **Background.** In executing the Corps mission to provide public outdoor recreation opportunities, districts receive numerous and diverse recreation land and water development requests. Since there are no nationwide consistent criteria to evaluate these requests, districts have taken different approaches that have created inconsistencies in the type and scope of recreation development provided. As a result, districts have requested nationwide guidance to address these issues.
2. **Purpose.** The purpose of this policy is to establish consistent, nationwide policy that will be applied to evaluate requests for recreation development at Corps projects in accordance with the Corps natural resources management mission. This policy was developed jointly by the Real Estate and Operations Communities of Practice.
3. **Applicability.** This policy generally applies to all recreation development requests by public (federal, state and local), private sector and quasi-public entities and individuals at Civil Works water resources development projects. Previously approved development plans are grandfathered under this policy. When a proposed action is not specifically addressed in an approved development plan or an existing outgrant instrument, it will be treated as a new request with regard to this policy. In this circumstance, the land availability will not have to be reevaluated. New or existing sublessees that propose actions outside the terms and conditions of the current real estate instrument will be considered new requests. All new requests require a conceptual development plan in sufficient detail to evaluate the proposal.
4. **Definitions**
 - a. **Comprehensive Resort** – Typically, multi-faceted developments with facilities such as: marinas, lodging, conference centers, golf courses, tennis courts and restaurants.
 - b. **Development Plan** – Requestor's or existing lessee's plan for development of an area that shows proposed facilities, acreages, etc.
 - c. **Outgrant** – An outgrant authorizes the right to use Army-controlled real property. It is a written legal document that establishes the timeframe, consideration, conditions and restrictions on the use of Army property. For the purposes of this policy, outgrants are typically leases and licenses authorized by 16 USC 460d, 10 USC 2667 and the general administrative authority of the Secretary of the Army (reference ER 405-1-12, Chapter 8 and the forthcoming EC 405-1-80).

- d. **Project Level Representative** – Person responsible for operations at a project or area level such as lake manager, operations manager, project manager, etc.
- e. **Support Facility** - An incidental facility that is not the main attraction or focus, but supports the approved recreation development. Examples include: playgrounds, multi-purpose sports fields, overnight facilities, restaurants, camp stores, bait shops, comfort stations, boat repair facilities, water slides, etc.

5. Philosophy. The Corps philosophy is to provide public outdoor recreation opportunities that support project purposes and meet the recreation demands created by the project itself while balancing natural resources requirements. This philosophy also considers other multipurpose project purposes such as navigation, flood control, hydropower, and water quality.

6. Policy: The primary reason for the recreation development request must be tied to the natural resources of the project itself. Typically these recreation requests focus on facilities that accommodate or support: water-based activities, overnight use, and day use. Examples that rely on the project's natural or other resources include: marinas, campgrounds, picnic areas, trails, swimming beaches, boat launching ramps, and comprehensive resort facilities. Examples that do not rely on the project's natural or other resources include: theme parks or ride-type attractions; private exclusive use; sports or concert stadiums; and stand alone facilities such as restaurants, bars, motels, hotels, non-transient trailers, and golf courses. Primary recreation facilities are approved first followed by those facilities that support them. Support facilities should enhance the recreation experience, be tied to resource-based facilities such as marinas, campgrounds, RV parks, and/or resorts, and be secondary to the original intent of the recreation development.

7. Evaluation Criteria: All requests for recreation development must be in writing and reviewed by a district team consisting of the project level representative, Real Estate, Operations, and other legal/technical elements as appropriate. Although these evaluation criteria are integral to any land availability determinations, the preparation of the Report of Availability (ROA) will follow the processes established in EC 405-1-80 and ER 200-2-2. In addition, the evaluation will be consistent with ER 1130-2-540, ER 1130-2-550, and ER 1130-2-406.

The team will evaluate requests for recreation development using the following criteria.

- Consistent with project purposes
- Reasonable nexus to the project's natural and other resources
- Consistent with land use classifications and resource management objectives in the Project Master Plan (or supplement thereto) and the Operational Management Plan
- In the public interest
- Justified by public demand (market study)
- Economically viable (feasibility study)
- Meets the recreation demands created by the project itself while balancing natural resources requirements

Routine, minor expansions/requests of previously approved facilities within the lease footprint may warrant a streamlined evaluation in accordance with established district procedures.

Examples include: additional campsites at an existing campground, additional marina boat slips, enlargement of a restaurant, additional picnic sites or parking spaces.

8. This policy is effective immediately and supercedes any existing project, district, or MSC policy on evaluating requests for recreation development. This policy will remain in effect until incorporated into appropriate Engineer Regulations.

FOR THE COMMANDER:

DON T. RILEY
Major General, USA

Director of Civil Works

APPENDIX E-6
OMBIL Development

APPENDIX E-7
NRM Gateway
(Gateway steering committee for ES)