Section A: Overview (All Capital Assets)

1	Date of Submission:	**09/10/2007**
2	Agency:	**US Army Corps of Engineers**
3	Bureau:	**00**
4	Name of this Capital Asset: *Corps Water Management System (CWMS)*
5	Unique Project (Investment) Identifier: (For IT investment only, see section *53*. For all other, use agency ID system.) *202-00-01-02-01-1051-00*
6	What kind of investment will this be in FY2009? (Please NOTE: Investments moving to O&M in FY2009, with Planning/Acquisition activities prior to FY2009 should not select O&M. These investments should indicate their current status.)
	Planning
	Full Acquisition
X	Operations and Maintenance
	Mixed Life Cycle
	Multi-Agency Collaboration

7	What was the first budget year this investment was submitted to OMB? *FY2002 Submission*

8	Provide a brief summary and justification for this investment, including a brief description of how this closes in part or in whole an identified agency performance gap:

> *The "Corps Water Management System" (CWMS) is the Corps' data management, decision-support analysis, and information dissemination system supporting requirements associated with the Corps' water resources/water control management mission. CWMS directly supports all Corps water resources management decision making related to reservoir regulation, flood control, hydro power, navigation, water quality, water supply, environmental, recreation, irrigation, fish and wildlife and other project related water resources objectives of the Corps water resources infrastructure. CWMS is deployed to operate 24/7 in each of the Corps district/division offices (43) with water control management responsibilities. This project modernizes a loosely coordinated "Water Control Data System" with a standard suite of software and workstations. The modernization project is designed to improve execution of the water control management mission, and provide for staff utilization efficiency improvements.*

> *CWMS replaces locally developed, disparate and incompatible data management, analysis and decision-support systems with a Corps standardized software system that is centrally maintained and supported, thus reducing costs of on-going improvements, maintenance, and technical support. Also, the use of CWMS frees district water control management staff to concentrate on decision support analysis for improved mission execution from prior duties involving software development, maintenance, and support.*

9	Did the Agency's Executive/Investment Committee approve this request? *X-YES*
	a. If "yes," what was the date of this approval? *Date of last CFAT*
10	Did the Project Manager review this Exhibit? *X-YES*
11	Contact information of Project Manager? Name
	Phone Number E-mail

a. What is the current FAC-P/PM certification level of the project/program manager?

12. Has the agency developed and/or promoted cost effective, energy-efficient and environmentally sustainable techniques or practices for this project? *X-NO*?

a.   Will this investment include electronic assets (including computers)? *X-YES*

b. Is this investment for new construction or major retrofit of a Federal building or facility? (answer applicable to non-IT assets only) *X-NO*
1   If "yes," is an ESPC or UESC being used to help fund this investment? Yes No
2   If "yes," will this investment meet sustainable design principles? Yes No
3   If "yes," is it designed to be 30% more energy efficient than relevant code? Yes No

13. Does this investment directly support one of the PMA initiatives? *X-YES*

          If "yes," check all that apply:
Human Capital Budget *X*
Performance Integration
Financial Performance *X*
Expanded E-Government *X*
Competitive Sourcing
Faith Based and Community
 Real Property Asset Management
Eliminating Improper Payments
 Privatization of Military Housing
Research & Development Investment Criteria
Housing & Urban Development Management & Performance
 Broadening Health Insurance Coverage through State Initiatives
Right Sized" Overseas Presence Coordination of VA & DoD Programs and Systems

a. Briefly and specifically describe for each selected how this asset directly supports the identified initiative(s)? (e.g. If E-Gov is selected, is it an approved shared service provider or the managing partner?)

>   ***PMA Goal – Human Capital:*** *CWMS provides a corporate Water Management tool for use by all water managers throughout the organization. A common Community of Practice can evolve around this decision support system thereby maximizing the ability of water managers to exchange and enhance their abilities to exchange knowledge throughout the organization.*
>
>   ***PMA Goal – Financial Performance:*** *With a common tool set, duplication of effort can be reduced as offices share processes and information amongst each other. CWMS facilitates this by not having to re-engineer solutions to work with disparate systems.*
>
>   ***PMA Goal – Expanded E-Government:*** *CWMS utilizes the Corps' Corporate database, i.e., Oracle, which facilitates the efficient storage and sharing of data. Data stored in the corporate database can be accessed using COTS web enabled software providing near real-time data to the public.*

14. Does this investment support a program assessed using the Program Assessment Rating Tool (PART)? (For more information about the PART, visit www.whitehouse.gov/omb/part.) *X-NO*
a. If "yes," does this investment address a weakness found during a PART review?   Yes No
b. If "yes," what is the name of the PARTed program?
c. If "yes," what rating did the PART receive?   Effective, Moderately Effective, Adequate, Ineffective, Results not
                                        Demonstrated
15. Is this investment for information technology? *X-YES*

If the answer to Question 15 is "Yes," complete questions 16-23 below. If the answer is "No," do not answer questions 16-23.

For information technology investments only:

16. What is the level of the IT Project? (per CIO Council PM Guidance) Level 1 Level 2 *Level 3*

17. What project management qualifications does the Project Manager have? (per CIO Council PM Guidance)

X   (1) Project manager has been validated as qualified for this investment

        (2) Project manager qualification is under review for this investment

        (3) Project manager assigned to investment, but does not meet requirements

        (4) Project manager assigned but qualification status review has not yet started

        (5) No Project manager has yet been assigned to this investment

18 Is this investment identified as "high risk" on the Q4-FY 2007 agency high risk report (per OMB Memorandum M-05-23) *X-NO*

19. Is this a financial management system? *X-NO*

      a. If "yes," does this investment address a FFMIA compliance area? Yes No

    If "yes," which compliance area:

    If "no," what does it address?

      b. If "yes," please identify the system name(s) and system acronym(s) as reported in the most recent financial systems inventory update required by Circular A–11 section 52

20. What is the percentage breakout for the total FY2009 funding request for the following? (This should total 100%)

      Hardware *3*

      Software *31*

      Services *66*

      Other

21. If this project produces information dissemination products for the public, are these products published to the Internet in conformance with OMB Memorandum 05-04 and included in your agency inventory, schedules and priorities?

Yes No *X-N/A – Note: Data processed by this project is disseminated to the public, but this project does not directly produce publicly accessible html content.*

22. Contact information of individual responsible for privacy related questions:

Name   Phone Number   Title *Privacy Act Officer* E-mail

23. Are the records produced by this investment appropriately scheduled with the National Archives and Records Administration's approval?   Yes   *X-NO*

Question 24 must be answered by all Investments:

24. Does this investment directly support one of the GAO High Risk Areas?   Yes   *X-NO*

Section B: Summary of Spending (All Capital Assets)

1. Provide the total estimated life-cycle cost for this investment by completing the following table. All amounts represent budget authority in millions, and are rounded to three decimal places. Federal personnel costs should be included only in the row designated "Government FTE Cost," and should be excluded from the amounts shown for "Planning," "Full Acquisition," and "Operation/Maintenance." The "TOTAL" estimated annual cost of the investment is the sum of costs for "Planning," "Full Acquisition," and "Operation/Maintenance." For Federal buildings and facilities, life-cycle costs should include long term energy, environmental, decommissioning, and/or restoration costs. The costs associated with the entire life-cycle of the investment should be included in this report.

Table 1: SUMMARY OF SPENDING FOR PROJECT PHASES
(REPORTED IN MILLIONS)

	PY-1 & Spending Prior to 2007	PY 2007	CY 2008	BY 2009	BY+1 2010	BY+2 2011	BY+3 2012	BY+4 and beyond	Total
(Estimates for BY+1 and beyond are for planning purposes only and do not represent budget decisions)									
Planning	$0.000	$0.000	$0.000	$0.000	$0.000	$0.000	$0.000	$0.000	$0.000
Acquisition	$7.347	$0.000	$0.000	$0.000	$0.000	$0.000	$0.000	$0.000	$7.347
Subtotal Planning & Acquisition	$7.347	$0.000	$0.000	$0.000	$0.000	$0.000	$0.000	$0.000	$7.347
Operations & Maintenance	$5.840	$1.335	$1.340	$1.346					
TOTAL	$13.187	$1.335	$1.340	$1.346					
Government FTE Costs should not be included in the amounts provided above									
Government FTE Costs	$11.100	$0.555	$0.573	$0.590					
Number of FTE represented by cost	111.0	5.4	5.4	5.4	5.4	5.4	5.4	5.4	121.3

Note: For the multi-agency investments, this table should include all funding (both managing partner and partner agencies). Government FTE Costs should not be included as part of the TOTAL represented.

2. Will this project require the agency to hire additional FTE's? Yes *X-NO*
   a. If "yes," How many and in what year?

3. If the summary of spending has changed from the FY2008 President's budget
request, briefly explain those changes:

1. Complete the table for all (including all non-Federal) contracts and/or task orders currently in place or planned for this investment. Total Value should include all option years for each contract. Contracts and/or task orders completed do not need to be included.

Section C: Acquisition/Contract Strategy (All Capital Assets)

Contracts/Task Orders Table:

Contract or Task Order Number	Type of Contract/Task Order	Has the contract been awarded (Y/N)	If so what is the date of the award? If not,what is the planned award date?	Start date of Contract/Task Order	End date of Contract/Task Order	Total Value of Contract/ Task Order ($M)	Is this an Interagency Acquisition? (Y/N)	Is it performance based? (Y/N)	Con awa (Y/N)
W91238-06-A-0019	BPA	Y	01Oct2006	01)ct06	30Sep11	0.040M*	N	Y	Y
This contract is a general use BPA contract used by more than the CWMS project. The listed $0.040M represents the task orders that have been placed against this contra									
DACW05-01-D-0023	IDIQ	Y	14Sep01	01Apr02	14Mar07	0.845M*	N	Y	Y
This contract is a general use IDIQ contract used by more than the CWMS project. The listed $0.845M represents the task orders that have been placed against this contra									

2. If earned value is not required or will not be a contract requirement for any of the contracts or task orders above, explain why:

> *CWMS is a steady state capital investment and EVM is not required for this type of project.*

3. Do the contracts ensure Section 508 compliance? Yes *X-NO* N/A

a. Explain why:

> *The IDIQ contract utilized for CWMS is a general Engineering and Software IDIQ. Section 508 compliance would need to be specified in the individual Task Orders written against the contract.*

4. Is there an acquisition plan which has been approved in accordance with agency requirements? *X-YES* No
a. If "yes," what is the date? *16 Jul 2007*
 b. If "no," will an acquisition plan be developed?
        1. If "no," briefly explain why:

Section D: Performance Information (All Capital Assets)

In order to successfully address this area of the exhibit 300, performance goals must be provided for the agency and be linked to the annual performance plan. The investment must discuss the agency's mission and strategic goals, and performance measures (indicators) must be provided. These goals need to map to the gap in the agency's strategic goals and objectives this investment is designed to fill. They are the internal and external performance benefits this investment is expected to deliver to the agency (e.g., improve efficiency by 60 percent, increase citizen participation by 300 percent a year to achieve an overall citizen participation rate of 75 percent by FY 2xxx, etc.). The goals must be clearly measurable investment outcomes, and if applicable, investment outputs. They do not include the completion date of the module, milestones, or investment, or general goals, such as, significant, better, improved that do not have a quantitative or qualitative measure.

Agencies must use the following table to report performance goals and measures for the major investment and use the Federal Enterprise Architecture (FEA) Performance Reference Model (PRM). Map all Measurement Indicators to the corresponding "Measurement Area" and "Measurement Grouping" identified in the PRM. There should be at least one Measurement Indicator for each of the four different Measurement Areas (for each fiscal year). The PRM is available at www.egov.gov. The table can be extended to include performance measures for years beyond FY 2009.

Performance Information Table							
Fiscal Year	Strategic Goal(s) Supported	Measurement Area	Measurement Grouping	Measurement Indicator	Baseline	Target	Actual Results
2007	*USACE Campaign GOAL #2: Develop Sound Water Resources Solutions*	Mission & Business Results	*Natural Resources – Water Resource Management*	*Number of offices indicating they use CWMS for mission modeling purposes*	*20 of 32 active offices show 90% or more reliance on CWMS Data Collection*	*Continue to grow the number of offices showing +90% reliance on CWMS*	*TBD*
2007	*USACE Campaign Goal #1 to Support Stability, Reconstruction, and Homeland Security by providing highly adaptable and effective technical support , responsive to National Strategies and interests*	Customer Results	*Timeliness & Responsiveness*	*Number of CWMS Helpdesk Requests received and answered.*	*24x7 CWMS Helpdesk established in this FY. Baseline will be established this FY*	*+95% customer satisfaction*	*TBD*
2007		Processes & Activities	*Quality*				*TBD*
2007		Technology	*Reliability and Availability*				*TBD*
2008	*USACE Campaign GOAL #2: Develop Sound Water Resources Solutions*	Mission & Business Results	*Natural Resources – Water Resource Management*	*Number of offices indicating they use CWMS for mission modeling purposes*	*FY07 Results will be used.*	*Continue to grow the number of offices showing +90% reliance on CWMS*	*TBD*
2008	*USACE Campaign Goal #1 to Support Stability, Reconstruction, and Homeland Security by*	Customer Results	*Timeliness & Responsiveness*	*Number of CWMS Helpdesk Requests received and answered.*	*FY07 Results will be used.*	*+95% customer satisfaction*	*TBD*
2008		Processes & Activities	*Quality*		*FY07 Results will be used.*		*TBD*
2008		Technology	*Reliability and*		*FY07 Results*		*TBD*

	providing highly adaptable and effective technical support , responsive to National Strategies and interests		*Availability*		*will be used.*	
2009	*USACE Campaign GOAL #2: Develop Sound Water Resources Solutions*	Mission & Business Results	*Natural Resources – Water Resource Management*	*Number of offices indicating they use CWMS for mission modeling purposes*	*FY08 Results will be used.*	*Continue to grow the number of offices showing +90% reliance on CWMS*	*TBD*
2009	*USACE Campaign Goal #1 to Support Stability, Reconstruction, and Homeland Security by providing highly adaptable and effective technical support , responsive to National Strategies and interests*	Customer Results	*Timeliness & Responsiveness*	*Number of CWMS Helpdesk Requests received and answered.*	*FY08 Results will be used.*	*+95% customer satisfaction*	*TBD*
2009		Processes & Activities	*Quality*		*FY08 Results will be used.*		*TBD*
2009		Technology	*Reliability and Availability*		*FY08 Results will be used.*		*TBD*
Etc.		Etc.					

Section E: Security and Privacy (IT Capital Assets only)

In order to successfully address this area of the business case, each question below must be answered at the system/application level, not at a program or agency level. Systems supporting this investment on the planning and operational systems security tables should match the systems on the privacy table below. Systems on the Operational Security Table must be included on your agency FISMA system inventory and should be easily referenced in the inventory (i.e., should use the same name or identifier).

For existing Mixed-Life Cycle investments where enhancement is planned, include the investment in both the "Systems in Planning" table (Table 3) and the "Operational Systems" table (Table 4). In this context, information contained within Table 3 should characterize what updates to testing and documentation will occur before implementing the enhancements; and Table 4 should characterize the current state of the materials associated with the existing system.

All systems supporting and/or part of this investment should be included in the tables below, inclusive of both agency owned systems and contractor systems. For IT investments under development, security and privacy planning must proceed in parallel with the development of the system(s) to ensure IT security and privacy requirements and costs are identified and incorporated into the overall lifecycle of the system(s).

Please respond to the questions below and verify the system owner took the following actions:

1. Have the IT security costs for the system(s) been identified and integrated into the overall costs of the investment: *X-YES* No
   a. If "yes," provide the "Percentage IT Security" for the budget year: *Estimate for BY07: 5%*
2. Is identifying and assessing security and privacy risks a part of the overall risk management effort for each system supporting or part of this investment. *X-YES* No

3. Systems in Planning and Undergoing Enhancement(s) – Security Table:			
Name of System	Agency/ or Contractor Operated System?	Planned Operational Date	Date of Planned C&A update (for existing mixed life cycle systems) or Planned Completion Date (for new systems)
N/A – CWMS is an Operational System			

4. Operational Systems – Security Table:							
Name of System	Agency/ or Contractor Operated System?	NIST FIPS 199 Risk Impact level (High, Moderate, Low)	Has C&A been Completed, using NIST 800-37? (Y/N)	Date Completed: C&A	What standards were used for the Security Controls tests?" (FIPS 200/NIST 800-53, Other, N/A)	Date Completed: Security Control Testing	Date the contingency plan tested
CWMS	*Agency*	*Moderate*	*(DITSCAP)*	*Mar 2006*	*N/A*	*Apr 2007*	*Apr 2007*

5. Have any weaknesses, not yet remediated, related to any of the systems part of or supporting this investment been identified by the agency or IG?   Yes   *X-NO*
a. If "yes," have those weaknesses been incorporated into the agency's plan of action and milestone process?   Yes   No
6. Indicate whether an increase in IT security funding is requested to remediate IT security weaknesses? *X-NO*
 a. If "yes," specify the amount, provide a general description of the weakness, and explain how the funding request will remediate the weakness.

7. How are contractor security procedures monitored, verified, and validated by the agency for the contractor systems above?
> *N/A – CWMS is not a Contractor Operated System*

8. Planning & Operational Systems – Privacy Table:					
(a) Name of System	(b) Is this a new system? (Y/N)	(c) Is there at least one Privacy Impact Assessment (PIA) which covers this system? (Y/N)	(d) Internet Link or Explanation	(e) Is a System of Records Notice (SORN) required for this system? (Y/N)	(f) Internet Link or Explanation
CWMS	*N*	*Y*	*Army policy directs the Corps to submit PIAs to Army for posting to the DoD PIA website. They are not to be posted for public review due to the fact that they contain FOUO information.*	*N*	*SORN Not needed.*

Details for Text Options: Column (d): If yes to (c), provide the link(s) to the publicly posted PIA(s) with which this system is associated. If no to (c), provide an explanation why the PIA has not been publicly posted or why the PIA has not been conducted. Column (f): If yes to (e), provide the link(s) to where the current and up to date SORN(s) is published in the federal register. If no to (e), provide an explanation why the SORN has not been published or why there isn't a current and up to date SORN. Note: Links must be provided to specific documents not general privacy websites.

Section F: Enterprise Architecture (EA) (IT Capital Assets only)

In order to successfully address this area of the business case and capital asset plan you must ensure the investment is included in the agency's EA and Capital Planning and Investment Control (CPIC) process, and is mapped to and supports the FEA. You must also ensure the business case demonstrates the relationship between the investment and the business, performance, data, services, application, and technology layers of the agency's EA.

1. Is this investment included in your agency's target enterprise architecture? *X-YES* No
a. If "no," please explain why?

2. Is this investment included in the agency's EA Transition Strategy? *X-YES* No
a. If "yes," provide the investment name as identified in the Transition Strategy provided in the agency's most recent annual EA Assessment.
> *The Corps Enterprise Architecture (CeA) Target Work Environment plan indirectly includes the CWMS when discussing the Regional Watershed and Installation Management Corps business practice and the Integrated Emergency Management Corps business practice. CWMS provides the means for "integrated management of the Nation's water resources" by providing water managers with a nationally maintained system. The CWMS database will provide a means for rolling up data processed at the districts into a national database providing data in a common format for use by national emergency managers and potentially a common public interface to all of the Corps real time data.*

b. If "no," please explain why?

3. Is this investment identified in a completed (contains a target architecture) and approved segment architecture?
  Yes *X-No - CWMS is not yet part of a Segment Architecture.*
 a. If "yes," provide the name of the segment architecture.

Agency Compone nt Name	Agency Component Description	FEA SRM Service Type	FEA SRM Service Component	FEA Service Component Reused (b)		Internal or External Reuse? (c)	Funding Percentage (d)
4. Service Component Reference Model (SRM) Table : Identify the service components funded by this major IT investment (e.g., knowledge management, content management, customer relationship management, etc.). Provide this information in the format of the following table. For detailed guidance regarding components, please refer to http://www.egov.gov.							
				Component Name	UPI		
CWMS	*CWMS provides the water manager with the ability analyze water resource data.*	*Analysis and Statistics*	*Mathematical*			*Internal*	*10*
CWMS	*Hydrometeorologic data can be plotted and/or charted to provide the water manager with a quick and detailed overview of a watershed's condition*	*Visualization*	*Graphing / Charting*			*Internal*	*10*
CWMS	*The CWMS interface presents the user with a watershed map representing the pertinent features (e.g., rivers, streams, dams, levees, towns) pertinent to the watersheds regulation.*	*Visualization*	*Mapping / Geospatial / Elevation / GPS*			*Internal*	*10*
CWMS	*CWMS uses hydrologic, hydraulic, and reservoir simulation models to simulate the real world conditions.*	*Knowledge Discovery*	*Simulation*	*HEC-HMS, HEC-ResSim, HEC-RAS*	*N/A*	*Internal & External*	*15*
CWMS	*Results from watershed models are used by water managers to evaluate and prepare release/operational decisions.*	*Business Intelligence*	*Decision Support and Planning*	*HEC-HMS, HEC-ResSim, HEC-RAS*		*Internal & External*	*15*
CWMS	*Ad Hoc reports are prepared by CWMS users to assist in the analysis of real time data or simulation results.*	*Reporting*	*Ad Hoc*			*Internal*	*5*
CWMS	*Reports are produced providing relevant information on watersheds for decision makers, other agencies, and the public*	*Reporting*	*Standardized / Canned*			*Internal*	*10*

Agency Component Name	Agency Component Description	FEA SRM Service Type	FEA SRM Service Component	FEA Service Component Reused (b)		Internal or External Reuse? (c)	Funding Percentage (d)
				Component Name	UPI		
CWMS	Data can be extracted from the CWMS Database in Standard Hydrologic Exchange Format (SHEF) for interchange with Corps offices and/or federal/state agencies.	Data Management	Data Exchange	SHEFIT	N/A	External	5
CWMS	Incoming data streams undergo data quality checking, which flags suspect (erroneous) data.	Data Management	Data Cleansing			Internal	10
CWMS	Data editors allow users to effectively review and edit hydrometeorlogic data	Data Management	Extraction and Transformation			Internal	10

4. Service Component Reference Model (SRM) Table : Identify the service components funded by this major IT investment (e.g., knowledge management, content management, customer relationship management, etc.). Provide this information in the format of the following table. For detailed guidance regarding components, please refer to http://www.egov.gov.

a. Use existing SRM Components or identify as "NEW". A "NEW" component is one not already identified as a service component in the FEA SRM.

b. A reused component is one being funded by another investment, but being used by this investment. Rather than answer yes or no, identify the reused service component funded by the other investment and identify the other investment using the Unique Project Identifier (UPI) code from the OMB Ex 300 or Ex 53 submission.

c. 'Internal' reuse is within an agency. For example, one agency within a department is reusing a service component provided by another agency within the same department. 'External' reuse is one agency within a department reusing a service component provided by another agency in another department. A good example of this is an E-Gov initiative service being reused by multiple organizations across the federal government.

d. Please provide the percentage of the BY requested funding amount used for each service component listed in the table. If external, provide the percentage of the BY requested funding amount transferred to another agency to pay for the service. The percentages in this column can, but are not required to, add up to 100%.

5. Technical Reference Model (TRM) Table: To demonstrate how this major IT investment aligns with the FEA Technical Reference Model (TRM), please list the Service Areas, Categories, Standards, and Service Specifications supporting this IT investment.

FEA SRM Component (a)	FEA TRM Service Area	FEA TRM Service Category	FEA TRM Service Standard	Service Specification (b) (i.e., vendor and product name)
CWMS	Service Access and Delivery	Access Channels	Other Electronic Channels	Java Client Application Server to Server
CWMS	Service Access and Delivery	Delivery Channels	Intranet	Ssh, sftp, ftp, xterm, Java rmi
CWMS	Service Access and Delivery	Service Requirements	Authentication / Single Sign-on (SSO)	UNIX System Authentication via U-Pass
CWMS	Service Access and Delivery	Service Transport	Service Transport	ftp, Java RMI
CWMS	Service Platform and Infrastructure	Support Platforms	Platform Independent	Java, FORTRAN, C++
CWMS	Service Platform and Infrastructure	Software Engineering	Software Configuration Management	Perforce
CWMS	Service Platform and Infrastructure	Delivery Servers	Application Servers	SUN Sparc Architecture
CWMS	Service Platform and Infrastructure	Database / Storage	Oracle	Oracle9i moving to Oracle10g
CWMS	Service Platform and Infrastructure	Hardware / Infrastructure	Servers	Sun Sparc Servers
CWMS	Component Framework	Security	Transport Layer Security	Ssh, sftp
CWMS	Component Framework	Presentation / Interface	Jave GUI	Java GUI
CWMS	Component Framework	Business Logic	Platform Independent	Java, C++, FORTRAN

5. Technical Reference Model (TRM) Table: To demonstrate how this major IT investment aligns with the FEA Technical Reference Model (TRM), please list the Service Areas, Categories, Standards, and Service Specifications supporting this IT investment.

FEA SRM Component (a)	FEA TRM Service Area	FEA TRM Service Category	FEA TRM Service Standard	Service Specification (b) (i.e., vendor and product name)
CWMS	Component Framework	Data Interchange	ASCII Text/XML	ASCII Text/XML
CWMS	Component Framework	Data Management	JDBC	Oracle JDBC
CWMS	Service Interface and Integration	Integration	Middleware	PL/SQL
CWMS	Service Interface and Integration	Interoperability	Data Format	XML and HEC-DSS
CWMS	Service Interface and Integration	Interface	Service Description	XML, CWMS API

a.   Service Components identified in the previous question should be entered in this column. Please enter multiple rows for FEA SRM Components supported by multiple TRM Service Specifications

b.   In the Service Specification field, agencies should provide information on the specified technical standard or vendor product mapped to the FEA TRM Service Standard, including model or version numbers, as appropriate.

6. Will the application leverage existing components and/or applications across the Government (i.e., FirstGov, Pay.Gov, etc)? _X-YES_ No

   a. If "yes," please describe.

CWMS utilizes the NOAA's SHEFIT application to encode and decode SHEF (Standard Hydrologic Exchange Format) data. This is used to both ingest data into the CWMS database as well as to exchange data with other federal and non-federal agencies. CWMS is working with the USGS to facilitate the transfer of stream rating tables into CWMS so that both agencies can process and present data in a consistent fashion. CWMS is working with the USBR to facilitate the use of the USBR's RiverWare model in CWMS. RiverWare is a reservoir water accounting model that is used by several Corps offices in the southwestern portion of the country.

Part II should be completed only for investments identified as "Planning" or "Full Acquisition," or "Mixed Life-Cycle" investments in response to Question 6 in Part I, Section A above.

Section A: Alternatives Analysis (All Capital Assets)

In selecting the best capital asset, you should identify and consider at least three viable alternatives, in addition to the current baseline, i.e., the status quo. Use OMB Circular A-94 for all investments and the Clinger Cohen Act of 1996 for IT investments to determine the criteria you should use in your Benefit/Cost Analysis.

1. Did you conduct an alternatives analysis for this investment? Yes No

        a. If "yes," provide the date the analysis was completed?
        b. If "no," what is the anticipated date this analysis will be completed?

        c. If no analysis is planned, please briefly explain why:

2. Alternatives Analysis Results: Use the results of your alternatives analysis to complete the following table:

Alternative Analyzed	Description of Alternative	Risk Adjusted Lifecycle Costs estimate	Risk Adjusted Lifecycle Benefits estimate
Baseline	Status quo		
1 -			
2 -			
3 -			

3. Which alternative was selected by the Agency's Executive/Investment Committee and why was it chosen?

What specific qualitative benefits will be realized?
1
        5. Will the selected alternative replace a legacy system in-part or in-whole? Yes No
        a. If "yes," are the migration costs associated with the migration to the selected alternative included in this investment, the legacy investment, or in a separate migration investment? This investment the legacy investment, or in a separate migration investment

        b. If "yes," please provide the following information:

List of Legacy Investment or Systems		
Name of the Legacy Investment of Systems	UPI if available	Date of the System Retirement
(System Name)	(UPI)	(Date)

Section B: Risk Management (All Capital Assets)

You should have performed a risk assessment during the early planning and initial concept phase of this investment's life-cycle, developed a risk-adjusted life-cycle cost estimate and a plan to eliminate, mitigate or manage risk, and be actively managing risk throughout the investment's life-cycle.

1. Does the investment have a Risk Management Plan? Yes No

    a. If "yes," what is the date of the plan?
    b. Has the Risk Management Plan been significantly changed since last year's submission to OMB? Yes No
    c. If "yes," describe any significant changes:

2. If there currently is no plan, will a plan be developed? Yes No

    a. If "yes," what is the planned completion date?
    b. If "no," what is the strategy for managing the risks?

3. Briefly describe how investment risks are reflected in the life cycle cost estimate and investment schedule:

Section C: Cost and Schedule Performance (All Capital Assets)

EVM is required only on DME portions of investments. For mixed lifecycle investments, O&M milestones should still be included in the table (Comparison of Initial Baseline and Current Approved Baseline). This table should accurately reflect the milestones in the initial baseline, as well as milestones in the current baseline.

1   Does the earned value management system meet the criteria in ANSI/EIA Standard – 748? Yes No

2   Is the CV% or SV% greater than $\pm$ 10%? (CV%= CV/EV x 100;   SV%= SV/PV x 100) Yes No

a. If "yes," was it the? CV SV

Both

    b. If "yes," explain the causes of the variance: (long text)
    c. If "yes," describe the corrective actions: (long text)

3. Has the investment re-baselined during the past fiscal year?   Yes   No
a. If "yes," when was it approved by the agency head?   (Date)
b. If "yes", when was it approved by OMB?   (Date)

	Initial Baseline		Current Baseline		Current Baseline Variance	
4. Comparison of Initial Baseline and Current Approved Baseline: Complete the following table to compare actual performance against the current performance baseline and to the initial performance baseline. In the Current Baseline section, for all milestones listed, you should provide both the baseline and actual completion dates (e.g., "03/23/2003"/ "04/28/2004") and the baseline and actual total costs (in $ Millions). In the event that a milestone is not found in both the initial and current baseline, leave the associated cells blank. Note that the 'Description of Milestone' and 'Percent Complete' fields are required. Indicate '0' for any milestone no longer active.						
Description of Milestone	**Planned Completion Date** (mm/dd/yyyy)	**Total Cost ($M) Estimated**	**Completion Date** (mm/dd/yyyy) Planned:Actual	**Total Cost ($M)** Planned:Actual	**Schedule:Cost (# days:$M)**	**Percent Complete**

Part III: For "Operation and Maintenance" investments ONLY (Steady State)

Part III should be completed only for investments identified as "Operation and Maintenance" (Steady State) in response to Question 6 in Part I, Section A above.

Section A: Risk Management (All Capital Assets)

You should have performed a risk assessment during the early planning and initial concept phase of this investment's life-cycle, developed a risk-adjusted life-cycle cost estimate and a plan to eliminate, mitigate or manage risk, and be actively managing risk throughout the investment's life-cycle.

1. Does the investment have a Risk Management Plan?	**X-YES**	No
a. If "yes," what is the date of the plan?		**14 Aug 2006**
b. Has the Risk Management Plan been significantly changed since last year's submission to OMB?	Yes	**X-NO**
c. If "yes," describe any significant changes:		

2. If there currently is no plan, will a plan be developed? Yes No
a. If "yes," what is the planned completion date?
b. If "no," what is the strategy for managing the risks?

Section B: Cost and Schedule Performance (All Capital Assets)

1. Was operational analysis conducted? **X-YES** No
a. If "yes," provide the date the analysis was completed. **01 Aug 2007**
b. If "yes," what were the results? **Approved by CECI**
c. If "no," please explain why it was not conducted and if there are any plans to conduct operational analysis in the future:

2. Complete the following table to compare actual cost performance against the planned cost performance baseline. Milestones reported may include specific individual scheduled preventative and predictable corrective maintenance activities, or may be the total of planned annual operation and maintenance efforts).
a. What costs are included in the reported Cost/Schedule Performance information (Government Only/Contractor Only/Both)? **Both costs are included.**

	Planned		Actual		Variance
Description of Mileston	**Completion Date (mm/dd/yyyy)**	**Total Cost ($M)**	**Completion Date (mm/dd/yyyy)**	**Total Cost ($M)**	**Schedule:Cost(#days:$M)**
Design, develop	7/15/2001	$14.90	7/15/2001	$14.90	$0.00
Deployment	12/31/2002	$0.98	12/31/2002	$0.98	$0.00
Maint FY02	9/30/2002	$0.50	9/30/2002	$0.50	$0.00
Maint FY03	9/30/2003	$0.75	9/30/2003	$0.75	$0.00
Maint FY04	9/30/2004	$0.75	9/30/2004	$0.75	$0.00
Maint FY05	9/30/2005	$0.75	9/30/2005	$0.75	$0.00
Maint FY06	9/30/2006	$0.75	9/30/2006	$0.75	$0.00
Maint FY07	9/30/2007	$0.75	9/30/2007	$0.61	($0.14)
Maint FY08	9/30/2008	$0.77			

2.b Comparison of Plan vs. Actual Performance Table:

Maint FY09	9/30/2009	$0.80			
Maint FY10	9/30/2010	$0.82			
Maint FY11	9/30/2011	$0.84			