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U. S. Army Corps of Engineers
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Army Programs
CORPS OF ENGINEERS CIVIL WORKS DIRECT PROGRAM
PROGRAM DEVELOPMENT GUIDANCE
FISCAL YEAR 2010

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EXPIRES 31 MARCH 2009

Army Programs

CORPS OF ENGINEERS CIVIL WORKS DIRECT PROGRAM PROGRAM DEVELOPMENT GUIDANCE FISCAL YEAR 2010

1. **Purpose.** This Engineer Circular (EC) provides guidance for development and submission of the Corps of Engineers direct Civil Works Program for Fiscal Year 2010(FY10).

a. This guidance is consistent with FY09 guidance in that we will continue developing our program by eight business lines:

(1) Emergency Management (EM);
(2) Environment (EN);
(3) Flood and Coastal Storm Damage Reduction (F&CSDR);
(4) Hydropower (H);
(5) Navigation (N);
(6) Recreation (RC);
(7) Regulatory (RG); and
(8) Water Supply (WS),

b. Three functions:

(1) Expenses (E);
(2) Revolving Fund (RF) (Plant Replacement and Improvement Program (PRIP)); and
(3) Automation Program (AP).

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

d. Appendices I - VIII provide guidance for program development by each of the eight business lines within the Civil Works Program. Annexes A - C provide generic guidance on I (Investigations); C (Construction); and O&M Program matters, cutting across all business lines, as applicable. Annexes D - G provide guidance for program development for each of the three functional programs.

This EC supersedes EC 11-2-187 dated 11 May 2007.

2. **Applicability.** This EC applies to all headquarters elements, major subordinate commands (MSCs), districts, and field support activities having Civil Works Program responsibilities.

3. **References.**

a. **Public Laws**:

(1)	PL 84-99	Flood Control and Coastal Emergencies
(2)	PL 85-500	Water Supply Act of 1958
(3)	PL 91-190	National Environmental Policy Act of 1969
(4)	PL 92-500	Federal Water Pollution Control Act Amendments of 1972
(5)	PL 93-251	Water Resources Development Act of 1974
(6)	PL 97-348	Coastal Barrier Resources Act
(7)	PL 99-662	Water Resources Development Act of 1986
(8)	PL 100-676	Water Resources Development Act of 1988
(9)	PL 101-508	Revenue Reconciliation Act of 1990
(10)	PL 101-591	Coastal Barrier Improvement Act of 1990
(11)	PL 101-601	Native American Graves Protection and Repatriation Act
(12)	PL 101-640	Water Resources Development Act of 1990
(13)	PL 102-580	Water Resources Development Act of 1992
(14)	PL 103-62	Government Performance and Results Act of 1993
(15)	PL 104-303	Water Resources Development Act of 1996
(16)	PL 105-33	Balanced Budget Act of 1997
(17)	PL 106-53	Water Resources Development Act of 1999
(18)	PL 106-541	Water Resources Development Act of 2000
(19)	PL 108-137	Energy and Water Development Appropriation Act, 2004
(20)	PL 108-447	Consolidated Appropriations Act, 2005
(21)	PL 109-103	Energy and Water Development Act, 2006
(22)	PL-109-209	Continuing Appropriations Resolution 2007
(23)	PL-110-114	Water Resources Development Act 2007
(24)	PL 110-161	Consolidated Appropriations Act, 2008

b. **Executive Orders**:

(1)	EO 11514	Protection and Enhancement of Environmental Quality
(2)	EO 12088	Federal Compliance with Pollution Control Standards, 1978
(3)	EO 12512	Federal Real Property Management, 1985
(4)	EO 12893	Principles for Federal Infrastructure Investment
(5)	EO 12906	Coordinating Geographic Data Acquisition and Access: The National Spatial Data Infrastructure
(6)	EO 13148	Greening the Government through Leadership in Environmental Management

c. **Office of Management and Budget (OMB) documents**:

(1) Budget of the United States Government, Fiscal Year 2009, Analytical Perspectives
(2) Budget of the United States Government, Fiscal Year 2009, Appendix
(3) OMB Circular A-11 Preparation and Submission of Budget Estimates

d. **Department of the Army regulations**:

(1) AR 11-2 Management Control
(2) AR 385-10 The Army Safety Program

e. **Corps of Engineers Engineer Circulars, Manuals, Pamphlets, Regulations, and policy announcements and letters**

(1) EC 200-1-2 FUSRAP Policy
(2) EM 1110-1-2909 Geospatial Data and Systems
(3) EP 1130-2-500 Partners and Support (Work Management Guidance and Procedures)
(4) ER 5-1-11 Program and Project Management
(5) ER 11-1-320 Civil Works Emergency Management Programs
(6) ER 11-2-220 Civil Works Activities General Investigation
(7) ER 11-2-240 Civil Works Activities - Construction & Design
(8) ER 11-2-290 Civil Works Activities, General Expenses
(9) ER 37-2-10 Accounting and Reporting Civil Works Activities
(10) ER 200-2-3 Environmental Compliance Policies
(11) ER 1105-2-100 Planning Guidance Notebook
(12) ER 1110-1-8156 Policies, Guidance, and Requirements for Geospatial Data and Systems
(13) ER 1110-2-100 Guidance for Conducting Civil Works Planning Studies
(14) ER 1110-2-1302 Civil Works Cost Engineering
(15) ER 1130-2-500 Partners and Support (Work Management Policies)
(16) ER 1130-2-510 Hydroelectric Power Operations and Maintenance Policies
(17) ER 1130-2-540 Environmental Stewardship Operations and Maintenance Policies
(18) ER 1165-2-119 Modifications to Completed Projects
(19) ER 1165-2-131 Local Cooperation Agreements for New Start Construction Projects
(20) ER 1165-2-400 Recreational Planning, Development, and Management Policies
(21) Policy Announcement - Chief of Engineers announcement, 26 Mar 02, subject: USACE Environmental Operating Principles
(22) Policy Letter - Policy Guidance Letter 61, 27 Jan 99, subject: “Application of Watershed Perspective to the Corps of Engineers Civil Works Program and Activities”

f. **Other**. 2002 Federal Personnel Guide, Key Communications Group, Inc.

4. **Distribution.** This information is approved for public release. Distribution is unlimited.

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

CCY = current calendar year
CFY = current fiscal year (extending from 1 October CCY to 30 September CCY+1 before 1 January, latest, and 1 October CCY-1 to 30 September CCY thereafter)
PY = program year (CFY+2 before 1 October, next, and CFY+1 thereafter) = FY10
PY - 1 = one year before PY = FY09
PY - 2 = two years before PY (CFY before 1 October, next, and CFY-1 thereafter) = FY08
PY - 3 = three years before PY (CFY-1 before 1 October, next, and CFY-2 thereafter) = FY07
PY + N = program year plus N fiscal years.

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

6. **Program Development.**

a. **Government Performance and Results Act Guidance.**

(1) **Guidance Development Status**. The "Government Performance and Results Act of 1993" (GPRA), PL 103-62 is the foundation for present-day program development within the federal government. GPRA requires that agencies develop strategic plans and annual performance plans for serving the nation, and reports on how effective and efficient performance actually was for any period just completed. This has led to establishment of results-oriented performance planning, measurement, and reporting throughout the Federal government. The current Civil Works Strategic Plan was released in Mar 04, with the understanding that Army and OMB would continue to work on performance measures and targets tied to the strategic goals and objectives. A summary of the Civil Works strategic goals are as follows:

(a) Provide sustainable development and integrated management of the Nation’s water resources.

(b) Repair past environmental degradation and prevent future environmental issues.

(c) Ensure that projects meet authorized purposes and evolving conditions.

(d) Reduce vulnerabilities and losses to the Nation and the Army from natural and man-made disasters, including terrorism.

(e) Be a world-class public engineering organization.

Meanwhile, Army is developing its program based on projected merit of program investment increments. Guiding principles of its performance-based program development are presented below, under "Army Policy."

(2) **Initial Guidance.** The Operation and Maintenance, Program successfully established results-oriented business program development procedures for six business programs in 1996 as a Pilot GPRA Project for OMB. The business programs include EM, EN, F&CSDR, H, N, and RC. The development procedures were further evolved into today's procedures - models - and served as examples for development of models for the two other business lines - RG and WS. The program development procedures are presented in Appendices I - VIII.

b. **Presidential Policy.**

(1) **Presentation of Programming Results.** Congress established its appropriation accounts by program function, such as investigations, construction, and operation and maintenance. Consistently, OMB programs by program function. To this end, it maintains 5 to 10-year planning estimates, or ceiling, for each appropriation account of the Civil Works Program. The ceilings reflect long-term effects of the President's policies for the various programs, projects, and activities (PPAs) funded by each account, and serve as benchmarks for use in evaluating Congressional actions. The 5 to 10-year period accommodates adequate definition of long-term resource requirements. These ceilings are presented, for all accounts, in OMB's MAX database.

(2) **Economic Assumptions.** Economic assumptions underlying Presidential policy of reference 3.c.(1), Budget of the United States Government, Fiscal Year 2009, Analytical Perspectives, are reflected in Table 1. These assumptions, along with related factors presented in the Federal Personnel Guide of Key Communications Group (KCG), Inc., and Civil Service Retirement System (CSRS) - to - Federal Employees Retirement System (FERS) workforce conversion data of HQUSACE Human Resources Office, are shown for PY-3 through PY+19. The assumptions and related data cover base rates for federal civilian permanent workers, reflecting pay and burden factors; pay raises for these workers applicable to both changing and fixed base rates; and inflation for "goods and services" of federal civilian temporary and nonfederal workers, and nonpay items.

(a) **Pay and Burden Rates.** Base rates (against which pay raises apply) reflect assumed pre-raise pay and burden rates. Pre-raise pay rates are 1.000, by definition, for regular pay, and assumed to be 0.02 for awards. Assumed burden rates reflect assumed government contributions for worker benefits. The rates comprise two parts - one part for government contributions under the CSRS; the other, under the FERS. The first part (including contributions for retirement, health insurance, Medicare, and life insurance) is shrinking, while the second part (including contributions for regular, "Thrift Savings," and Old Age Survivors Disability Insurance (OASDI) retirement; health insurance; Medicare; and life insurance) is growing. This results from permanent force "attrition" and subsequent "turnover" through the hiring of more workers under FERS. With an annual permanent force attrition of 7 % and associated turnover

initially representing a considerable share of that, the CSRS part is expected to become negligible by FY21. Class 1 "updating factors" reflect the year-over-year change in base (resulting from change in burden), the associated year-over-year raises, and whatever raise absorption may pertain.

(b) **Pay Raise Assumptions.** Pay raise assumptions for federal civilian permanent workers are shown in reference 3.c.(1), Table 11-1, "Economic Assumptions." Assumed pay raise rates include base and locality components. (The base component is different from the base rate, discussed above, against which the base component applies.) Base components, reflecting the Employment Cost Index (ECI), apply nationally. Locality components, reflecting conditions of local markets, apply locally. Allocation of pay raise rates to base and locality components is based on the number and distribution of workers eligible for locality pay. For PY-2, the national allocation to these components was 0.025 and 0.020, or 55 % and 44 % of the 45% total raise rate. The national allocation for PY-1 has yet to be determined, therefore, the composite raise rate is used without refinement. Class 1 rates in Table 1 are based on composite raises for all years.

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

(3) **President's Management Agenda (PMA).** The President's Management Agenda addresses six initiatives, specifically:

(a) strategic management of human capital

(b) competitive sourcing

(c) improved financial management

(d) expanded e-government

(e) real property, and

(f) performance improvement

(4) The last of these six initiatives deals with program development. It entails using performance information to improve program management and investment decisions. To evaluate the effectiveness and efficiency of agency programs, OMB has developed the Program Assessment Rating Tool (PART) - an objective, easily understood questionnaire which facilitates reaching findings that are credible and useful in improving performance and decision-making. The PART includes performance measures.

(5) Agency status and progress in addressing the PMA are monitored by OMB in a "scorecard" format. Status and progress each may be summarized by one of three possible overall ratings - green, yellow, and red, from best to worst. On its latest quarterly scorecard, the Corps' received one red, four yellow, and one green rating for status, include a yellow for performance improvement, yellow for competitive sourcing, yellow for real property, yellow for E-Government and green for strategic management of human capital. Our goal is to receive green ratings for status in accomplishment of all initiatives.

c. **Army Policy.**

(1) **Performance-based Program Development.** Performance-based program development is development of only those programs, and only those parts of those programs, that can be justified by the results produced, or to be produced. Results may be in the form of outputs or outcomes. Performance-based program development is designed not only to ensure prosecution of only clearly justified programs, but also, to ensure that business lines increments are added such that the first-added increment provides the best results or returns, the second-added increment provides the second-best results or returns, etc. The increments are added in order of priority, both within and across business lines, to build total programs of whatever size, depending on available funding.

(2) **Business Lines Programming.** In response to GPRA, the Corps established its business lines by program purpose, such as navigation, environment, and flood and coastal storm damage reduction, rather than by function (e. g. investigations, construction, operation and maintenance, etc.). Consistently, the Corps programs by program purpose, and, once Army finishes program development, assists Army in cross-walking results to appropriation accounts, set up by function, for use by OMB in developing the President's program. Business lines include navigation, environment, flood control and coastal storm damages, hydropower, recreation, regulatory, emergency management, and water supply. Each of these business lines is fully addressed in its own appendix.

(3) **Performance**.

(a) **Measures.** Performance measures are written criteria by which to gauge progress in accomplishment of any particular performance objectives, goals, and missions. For the Civil Works Program, the Corps has eight sets of performance measures - one for each business line. They are used, not only as standards by which to judge performance based on project or program

results, but also, to project performance contributions of investment increments, discussed later, for consideration in prioritization of increments to be added in program development.

(b) **Results.** Performance results are products of operation of the PPAs. They are determined through collection of data, by performance measure, describing the extent to which performance objectives, goals, or missions, were met through operation of the PPA. They are used, not only to evaluate program performance and judge program worthiness after the fact, but also, to evaluate the reasonableness of performance measures.

(4) **FC,MR&T Project.** Programs for the FC,MR&T Project will be developed in accordance with guidance provided for comparable functions of other programs.

(5) **Specifically Authorized Studies and Projects.** For specifically authorized studies and projects the emphasis is on maintaining continuity in the workflow once a new start decision has been made. In general, there are only two new start decision points for all Army proposed cost-shared projects - initiation of the reconnaissance phase study and project construction. Likewise, Preconstruction Engineering and Design (PED) studies may be budgeted before release of the Division Engineer's (DE's) Transmittal Letter provided the DE's Letter will be released. However, if any feasibility study (other than for inland waterways) was not subject to efficiencies and controls of cost-sharing, a new start review and approval would be needed for PED. Likewise, a new start decision would be needed for a feasibility study being initiated after, say, an O&M-funded appraisal without an intervening reconnaissance new start decision.

d. **Corps Policy.**

(1) **General.** In response to GPRA, the Corps established its business lines by program purpose, such as emergency management, environment, flood and coastal storm damage reduction, rather than by function. Consistently, the Corps programs by program purpose, and, once Army finishes program development, assists Army in translating results to program function for use by OMB in developing the President' program.

(2) **Local Sponsor.** Districts should collaborate with Local Sponsors on the budget development. Please follow the guidance for Disclosure of Budgetary information. The President's Budget, after presentation to Congress contains the only releasable budgetary information. This budgetary or process information must be kept confidential until officially released to the public. Such information includes funding account, study, project, and state. Instructions on policies and procedures for disclosing budgetary information are contained in OMB guidance circular and are issued annually by CECW-ID.

(3) **Environmental Operating Principles.** By reference 3.e. (23), 26 Mar 02, the Chief of Engineers announced the USACE Environmental Operating Principles. These principles apply across all business programs and accounts. They are:

(a) strive to achieve environmental accountability, in order to maintain the environment in a healthy, diverse, and sustainable condition necessary to support life;

(b) recognize the interdependence of life and the physical environment, proactively considering environmental consequences of Corps programs and acting accordingly in all appropriate circumstances;

(c) seek balance and synergy among human development activities and natural systems by designing economic and environmental solutions that support and reinforce one another;

(d) continue to accept 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;

(e) seek ways and means to assess and mitigate cumulative impacts to the environment, bringing systems approaches to the full life cycle of our processes and work;

(f) build and share an integrated scientific, economic, and social knowledge base that supports a greater understanding of the environment and impacts of our work; and

(g) 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 o the nation's problems that also protect and enhance the environment.

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

(5) **Watershed Principles.** Watershed studies are planning initiatives that have a multi-purpose and multi-objective scope and accommodate flexibility and collaboration in the planning process. Possible areas of investigation include flood damage reduction activities, ecosystem

restoration, navigations, water supply and recreations. The watershed principles require team thinking about water resources development and management in the context of multiple purposes rather than single purposes, and thus, facilitates the search for comprehensive and integrated solutions; improve opportunities for public and private groups to identify and achieve common goals by unifying on-going efforts and leveraging resources; identify a combination of recommended actions (a Watershed Management Plan) to be undertaken by various partners and stakeholders in order to achieve local, tribal, regional, and national water resources management goals identified in the study and may or may not identify further budgetable Corps studies or implementation projects; leverage resources, including cost shared collaboration, and integrates programs and activities within and among Civil Works programs, and with other Federal, tribal state and non-governmental organizations, to improve consistency and cost effectiveness. **Watershed principles may be applied to Watershed Assessments (leading to Watershed Management Plans) in accordance with Section 729 or feasibility studies accomplished in a watershed context (leading to Corps implementation). See Annex A (Investigations) and Business Line Appendices.**

(6) Plant Replacement and Improvement Program. Submission of documents to support new Plant Replace and Improvement Program (PRIP) projects are contained in Annex E along with referenced materials. Both large and small projects are reviewed by the HQ Prioritization Group which makes recommendations to the Senior Program Budget Advisory Committee on the disposition with respect to inclusion in the program. Good planning dictates that justification, economic analysis, estimates, and other submission materials are prepared well in advance of this budget review, since it is only one year away from project execution. Submissions of projects outside of the normal budget cycle are discouraged except for situations dictated by extraordinary circumstances**.**

(7) Construction Contracts guidance is referenced in Annex B and in **EC 11-2-192, Execution of the Annual Civil Works Program.**

(8) **Initial Program.** The initial program is the first business line increment for each business line. Criteria for initial levels are presented, as applicable, in Appendices I - VIII. For each business line and account program, HQUSACE must develop a realistic, multiyear initial program reflecting PY-2 work allowances and projected current year appropriations and meeting further requirements for program formulation presented in the appendices and/or annexes covering the programs. (Note that this is not the same program represented by “baseline estimates” required by reference 3.a.(8), PL 101-508, and discussed in reference 3.c.(3) OMB’s Circular A-11).

(9) **Capability Program.** When developing capabilities, District should fully fund all contracts $20 million or less; for contracts greater than $20 million, treat them as incrementally funded (i.e. continuing contract, base bid + option, multiple year contract); when stating capabilities, in addition to the optimally funded capabilities, provide one or two logical increments less that the optimal capability with a brief explanation of what can be accomplished

at each funding increment. The recommended program to OMB, the President's FY 2010 budget, and the associated 5 to 10 year budget plan will be derived in part from the Capability Program. Future or known work should be identified in the capability program.

7. Systems. The National Academy of Public Administration (Prioritizing America's Water Resources Investments) released their February 2007 report which was chartered by the House Appropriations Energy and Water Subcommittee. The report validates the direction the Corps has been heading under the leadership of OMB and Congress in the implementation of performance based budgets, system/watershed perspectives, long range asset planning reflected on the near term through the Five Year Funding Streams and the Five Year Infrastructure Management Plans providing a near term horizon. This evolution will continue with the development of the FY2010 budget using regional system budgeting and empowerment of the Regional Business Center under the Corps of Engineers 2012 Reorganization. Regional system and/or watershed budget development will provide better representation of unique regional characteristics that are difficult if not impossible to capture using national performance based criteria. The Business Line Managers will provide national direction and guidelines to ensure that regional criteria are aligned with primary objectives to ensure public safety, value to the nation, and excellence in stewardship by seeking to maximize project life at the lowest sustainable cost in an environmentally responsible and sustainable manner.

a. **Infrastructure Management Plan.** The Infrastructure Management Plan will be consistent with the 5 year funding stream and represent the O&M component of the 5 year funding stream. The Infrastructure Management Plan will be based on sub-plans developed by Business Line Managers for six primary missions (Flood & Coastal Storm Damage Reduction, Navigation, Environmental Stewardship, Water Supply, Hydropower, and Recreation). The Infrastructure Management Plan should be jointly developed and improved within the Operation & Maintenance Community of Practice. The Infrastructure Management Plan should be jointly developed and improved within the Operation & Maintenance Community of Practice. The Infrastructure Management Plan must reflect sound engineering, construction, operation and maintenance state of practice (reliability centered maintenance, condition assessments, equipment mortality studies, predictive maintenance, etc) and continually honed to achieve the lowest sustainable O&M investment level. Accelerated replacement cycles within the 5 year funding stream may affect O&M needs within the Infrastructure Management Plan (i.e. replacement versus continuing high outage and repairs on failing equipment). The O&M budget submission should be consistent with the 5 year funding stream and the Infrastructure Management Plan. The 5 year funding stream and Infrastructure Management Plan both reflect planned investments for a long range five year period.

b. **Systems and Basins.** A systems approach or watershed approach is needed to ensure that investments are integrated into a whole that preserves or enhances performance and sustainability at the system level. A system approach requires consideration of the investment needs and priorities of all the business programs within the watershed. All PY (FY 10 budget items requests (studies, construction, and O&M) will include the USGS Hydrologic Unit Code

(HUC) sub-region (4 digits) codes. These codes can be found at http://water.usgs.gov/GIS/huc_name.html. **A list of 52 Systems** has been developed for O&M **(see Table C-5.1)**. MSCs had the opportunity to recommend modifications to the systems, by either adding or subtracting based on a rational logical fashion that supports the system concept. Accordingly, MSCs will use the systems within their respective regions of the US and develop budget priorities that are consistent with investing in one or more of the following aspects of the system: in the highest risk portions of the system; that will result in the most improvement in performance; that contribute to increased navigation reliability and safety; that contribute to increased flood damages prevented; that identified as a watershed, and may include multiple individual projects and components. Some large watersheds are comprised of more than on system (e.g. the Mississippi River watershed has the Upper Mississippi River system, the MR&T system, and certain tributaries as separate systems). Analytical perspectives should be developed to help determine the mix in PY of investments in maintenance, operations improvements, reallocation, rehabilitation or replacement, new construction, planning, and design that will maximize system efficiency, safety, reliability and sustainability over time.

c. **Operations and Maintenance Systems**

(1) PY O&M budget will be formulated on a regional/system basis and, if Congress concurs on the benefit of planning and carrying out the O&M program in accordance with system-wide priorities, the O&M program would be managed by system and business line, rather than project-project. Operation and maintenance work funded in this manner will allow managers in the field more flexibility to address uncertainties and change conditions throughout the fiscal year, consistent with budget and appropriations decisions.

(2) Proposed PY funding will be consolidated according to Civil Works program areas, such as commercial navigation and flood damage reduction, for each of the identified systems in the United States, as established by the US Geological Survey. Specific projects that would receive funding in each basin also are identified by name.

8. **Multiyear Programs.**

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

b. **Civil Works Five Year Development Plan.**

(1) The Civil Works Five Year Development Plan purpose is to present an overview on how the funding for the Civil Works program over a five-year period will produce results that contribute to achievement of the strategic goals and objectives in the Civil Works Strategic Plan. The five-year plan focus is to undertake projects and activities that provide the highest net economic and environmental returns on the Nation's investment as well as reducing risks to life.

(2) To help in preparing the 2010-2014 five-year plans, each MSC/Division will develop five-year funding streams for each project. The funding streams will be the basis for the PY budget and the 2010-2014 Five-Year Development Plan (FYDP) which will be submitted to Congress and Office of Management and Budget (OMB) along with the budget submission. Divisions' five-year programs must be included in the **27 June 2008** submission. After the Divisions submit their five-year funding streams, a CW five-year plan will be prepared.

(3) The Final PY budget amounts will be provided after OMB Passback and the Divisions' five- year program will be updated. A final five-year plan is prepared for final submission to Congress and OMB in February 2009. The two scenarios are the final budget scenario and the **enhanced (enacted) scenario.** The five-year program is referenced in the Appendices and Annexes of this document. The five-year glide path is a projection of future funding requirements to meet performance standards.

c. **Programs Developed by Corps.** In the interest of developing an optimum Civil Works Program within funding constraints (as yet undefined), headquarters, U. S. Army Corps of Engineers (HQUSACE) must develop two alternative multiyear programs - an "initial program," based on Army policy and a "capability program," based on capability-level production by project.

d. **Business Line Increments.** Business line increments are defined in each applicable business line. They are prioritized by MSCs for each of their business lines, then, reviewed and modified or approved by HQUSACE and, ultimately, ASA(CW). They are added to the "initial" program in order of priority within each business line. Their priorities are based on their relative efficiencies and effectiveness in accomplishing approved performance objectives, goals, and missions. The objectives, goals, and missions include serving specific water and related land resource management purposes, meeting statutory requirements, and promoting national heath and safety. Justification statements present the relationships between investment increments, incremental contributions to achieving objectives, goals, and missions, and incremental funding. Making these relationships clear to all parties within the Corps, OMB, Congress, and the public is important to gaining support for recommended programs.

e. **Programs Developed by Army**. Based on HQUSACE recommendations, OASA(CW) will develop a "ceiling program," based on Presidential policy, by adding the highest-return business line increments nationwide to HQUSACE's initial program. Additional increments will

be added to develop an above-ceiling “recommended” program.

9. **Cost Estimates.**

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

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

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

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

c. **Micro-computer Assisted Cost Estimating System (M-CACES).** A complete and reliable Micro-computer Assisted Cost Estimating System (M-CACES) baseline cost estimate and realistic workflow and funding schedule are essential to preparing a 5 to 10-year program. Projections of work and funding requirements will be consistent with the President’s PY-1 budget, as modified by any Congressional action in the meantime. However, the funding schedules should be reviewed and adjusted continuously to reflect the sponsor's financial capability and project progress.

10. **Project Economics.**

a. **Discount Rates.** A discount rate of 4 7/8% will be used to determine the "current" economics of any project. For projects funded for construction, the "applicable" rate is the one in effect when construction funds were first appropriated. For projects never funded for construction, the applicable rate is the "current" rate, unless the project qualifies for the 3 1/4% rate under the "grandfather" clause in Section 80 of the Water Resource Development Act of 1974, PL 93-251. Even if “grandfathered” for budgetary purposes the actual current rate should be also used and results shown. In addition, as noted in paragraph 11 below, costs and benefits, and remaining costs and benefits should be computed and displayed at a 7 percent discount rate.

b. **Evaluation.**

(1) **Benefit/Cost Ratios**. As required, in support of funding requests, benefit-cost ratios will be evaluated based on the benefits in the latest approved official document, such as Feasibility Report, Chief of Engineers Report, Limited or General Reevaluation Report (LRR or GRR), Engineering Documentation Report (EDR), or other report. If date of last approved report is more than 3 years old, then will required economic update and approved by MSCs’.

(2) **New Construction Projects.** For any project or element proposed as a new construction, the fiscal year of the approval date of the latest economic analysis must not precede the fiscal year of the MSC program submission by more than 3 years. For example, for any new construction project or element in your initial submission, the approval date of the document containing the most recent economic analysis can be no earlier than 1 October CCY-4 - the first day of PY-5. This point in time precedes the start of the fiscal year in which you are making your submission by 3 years. If the fiscal year of the approval date is more than 3 years ago, you must perform a reevaluation to show that the project remains justified. Such reevaluation will be the first item of work upon receipt of funds and will be documented in an LRR to be submitted in support of any request for follow-on funding. The reevaluation will involve no major new analysis. It will be limited to reviewing and updating previous assumptions and limited surveying, sampling, and application of other techniques to develop a reasonable estimate of project benefits. If the limited reevaluation uncovers major changes that could affect project formulation or sizing, then additional PED rather than construction funds must be requested to undertake a complete GRR.

(3) **Continuing Construction Projects.** This data will be used in formulation of the President’s PY Budget. For continuing construction projects, the fiscal year of the approval date of the latest economic analysis must not precede the fiscal year of the MSC program submission by more than 3 years. For example, for any continuing construction project recommended in your June submission, the approval date of the document containing the most recent economic analysis can be no earlier than 1 October CCY-4 - the first day of PY-5. This point in time precedes the start of the fiscal year in which you are making your submission by 3 years. If the fiscal year of the approval date is more than 3 years ago, you must perform an economic update

to show that BCR and RBRCR criteria used for performance based budgeting is current. The economic update will involve no major new analysis. It will be limited to reviewing and updating previous assumptions and limited surveying, sampling, and application of other techniques to develop a reasonable estimate of project benefits. For any continuing construction project, in order to assure currency of economic analysis, the fiscal year of the date of the latest approved economic analysis, or update, must not precede the fiscal year of the MSC submission by more than 3 **y**ears. Economic updates should be performed in accordance with the update plan in the feasibility report and/or the Project Management Plan, MSCs may approve them.

(4) **Approval of Post-authorization Documents.** MSCs have approval authority for post-authorization documents that are certified as being in accordance with law and policy for projects not requiring a Washington-level decision or additional congressional authorization. Decision documents for projects not in accordance with policy or those requiring action by the Chief or ASA(CW), or requiring additional congressional authorization, must be submitted to headquarters, U. S. Army Corps of Engineers (HQUSACE).

11. **Report to Congress of Benefit/Cost Ratios.** Executive Order 12893, "Principles for Federal Infrastructure Investment," requires that benefits, costs, and benefit-cost ratios for new infrastructure investments of all federal agencies be evaluated at a discount rate of 7% to facilitate comparison and decisionmaking. This rate approximates the average real pretax return to capital in the private sector. The total benefit/cost ratios (BCR) and remaining benefit / remaining cost ratios (RBRCs) for all continuing and new construction projects, each based on a 7% discount rate, will be input into P2. **RBRC's are required when updating Justification Sheets.** Specifics on computing RBRCs are included in Annex B, Construction.

12. **Manpower.** No manpower data is required by this EC. CERM-M will use current resourcing guidance, the Corps of Engineers Manpower Requirements Systems (CEMRS), and PY-2 through PY workload data to develop PY manpower requirements by appropriation account for the OMB program submission. In early CCY+1, once the President's Program has been resolved for PY, then budget and manpower data compatible with the program will be updated in P2 Primavera Project Manager. This data will be imported to CEMRS for use in the development of the PY manpower allocations in accordance with the then current EC (to be published in January of CCY+1).

13. **Submissions.**

a. **Summary.** MSC's role is for quality assurance, to verify consistency and adhere to guidance in this document. Required MSC submissions, recipients, means of input, numbers of copies, and due dates are discussed at length in the appendices and summarized in Table 2. Due dates are designed to manage the budget development workload. They must be met.

b. **Input Instructions.** Input instructions are provided by various means, including, in addition to this EC, User's Manuals, system websites, and e-mail messages.

c. **Databases.** Data is input to databases of up to four automated information systems. These include P2, Information Technology Investment Portfolio System (ITIPS), Recreation Budget Evaluation System (Rec-BEST) and Environmental-Stewardship Budget Evaluation System (E-S BEST). These databases are open; they will close on the various dates shown in Table 2.

(1) **P2.**

(a) **Instructions.** In addition to the guidance below, detailed documentation and instructions concerning use of P2 for submission of the FY10 program can be found in a document named "PBS Training Workbook". This document can be obtained from a link on the P2 OFA-CW start-up screen. Note that the dates shown in the "Data Sources and Process Flow" section of the PBS Functional Design document are notional dates. Refer to Table 2 in this EC for a summary of official due dates. Additional instructions concerning use of all P2 tools are available on the PMBP Portal at **https://pmbp.usace.army.mil .**

(b) **General Provisions.** P2 will be used by all MSC/Districts for I, C, O&M, MR&T, FUSRAP, and RG program submissions. "Remaining Items" in these accounts will be handled separately by HQUSACE. Refer to the "Data Sources and Process Flow" section of the PBS Training Workbook document for a detailed discussion of the process flow. In summary, the concept is as follows: MSC/Districts will use P2 Primavera Project Manager (PM) to schedule their projects and identify unconstrained (capability level) resource requirements. Every night during the budget submission timeframe, selected data fields in PM will be automatically loaded into the PBS module of P2 Oracle Financial Analyzer (OFA) at a defined level of detail. The MSC/District will then use OFA to enter performance indicators, budget request amounts, and District and MSC rankings within each business line for all budget items across appropriation accounts. Upon completion of the submission by MSC/Districts, the P2 data in OFA will be utilized by each HQUSACE business line manager for development of the nationwide program. HQUSACE business line managers may work directly in OFA or may use Excel extracts of OFA data. Excel extracts revised by HQUSACE business line managers will be periodically uploaded back into OFA by HQUSACE.

(c) **P2 Primavera Project Manager (PM).** The current unconstrained (capability-level) project schedule, activities, and resource requirements identified in PM for the PY should provide the starting point upon which the budget submission is built in OFA. The PM data will also be used to provide additional details to a business line, account, or program manager who wants to see what specifically is included in an aggregated OFA budget item. Outyear schedule and resource data in PM on projects in the Construction phase will be queried to provide activity-level (contract) information for current and future years as needed. Thus it is necessary to schedule and resource budgeted Construction projects in PM through project completion. For instructions concerning PM data entry, refer to the PBS Training Workbook document sections entitled "Data Quality Considerations/User Action Checklist" and "PBS Business Process

Procedures (Update PY Schedules in Project Management)".

(d) **Recreation and Environmental Stewardship.** Budget packages and performance measure data for Recreation and the Environmental Stewardship part of the EN program will be updated and submitted through use of Rec-BEST and E-S BEST, respectively. The performance measure information must be updated in the BEST programs by **23 May 08.** This performance data will be extracted from Rec-BEST and E-S BEST and then merged into OFA along with budget data extracted from PM. When entering budget information into PM, make sure the corresponding BEST ID's are entered for all resourced activities to ensure that the proper performance measures can be matched in OFA. In OFA the Budget Item ID data field will contain the BEST ID. For most projects, the preliminary budget information and the matching BEST_ID's can be carried over from last year's data entry in PM or can be taken from the existing Rec-BEST and E-S BEST database. The information needed for P2 data entry is available on the P2 summary page in the BEST programs. Extracts of Rec-BEST and E-S BEST will be loaded into OFA on a nightly basis once the projects have submitted data input in Rec-BEST and E-S BEST and the budget items have been created in P2-OFA, to allow Districts and MSCs to review and evaluate their budget comprehensively, across business lines.

(e) **Business Line.** P2 provides a project level code to identify the project's primary business line. This code may be over-ridden in PM at the activity level for specific activities which differ from the project's overall primary business line. Several Business Line choices available in P2's list of values are not applicable for this budget submission, including "OTH" - Other, "SOTH" - Support for Others, "EM" - Emergency Management, and "RE" - Real Estate. The business line choice "ENV" - Environment should not be used. Instead, use "ENV-Ecosystem", ENV-Steward", or "ENV-FUSRAP". The "JOINT" business line should not be used for a project's primary business line classification, but may be used as the business line over-ride activity code on applicable activities in PM.

(f) **Increments.** An activity code named "CW Funding Increment" will be used in PM to categorize a discrete amount of work identified by an activity or a set of activities. The valid values for this data element are defined in the Definitions/Glossary section of this EC. If the activity code is blank, the corresponding data will be placed in a CW Funding Increment called "Unassigned" in OFA. Budget items with an "Unassigned" increment will not be considered for funding in FY10.

(g) **Phase Code**. An activity code named "CW Budget Phase" will be used in PM to categorize each resourced activity. The valid values for this data element are identified in Table 3 of the EC. If the activity code is blank, the corresponding data will be placed in a CW Phase called "Unassigned" in OFA. Budget items with an "Unassigned" CW Phase will not be considered for funding in FY10. O&M multipurpose hydropower projects (CW Type of Funds 96 3123 300) which are assigned a Phase code of "OJ" (Operation Joint Activities) or "MJ" (Maintenance Joint Activities) will appear in OFA under the Hydropower business line.

(h**) CW Type of Funds.** Every resourced activity in PM needs to have a valid Type of Funds (Approp Dept / Approp Symbol / Category-Class-Subclass (CCS)) code assigned at either the WBS or activity (override) levels for interfacing to CEFMS and proper OFA functionality and reporting. Do not assign a CW Type of Funds value which only identifies the Appropriation Dept and Symbol, but only choose values which include the CCS as well.

(i) **OFA Performance Measure Data Entry Forms.** The PBS module of OFA provides Performance Measure data entry forms which allow for submission of budget data. There is a separate data entry form for each business line. The data requirements for each business line are detailed in the business line appendices. For each budget item (row) in OFA, the PY Federal Corps (and PY Inland Waterway Trust Fund, if applicable) funding request amount will need to be entered, along with performance indicators applicable to the business line, as well as the MSC rank for the budget item. MSC ranking is required only within each business line, and not across business lines. Each budget item within the business line should receive a unique rank, beginning with rank '1', and incrementing by 1. For detailed documentation and instructions on the use of these forms, refer to the "Update PY Budget and Enter Performance Measures in OFA" and "OFA Nightly Update Process" sections in the PBS Training Workbook document. Note that budget items brought into OFA from PM may be revised as needed, including deletion and insertion of budget items. These revisions may be accomplished directly within OFA or by pasting from Excel into the OFA data entry forms. Data entered in OFA will not be overwritten by the PM-to-OFA nightly load process.

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

- **EM, EN Restoration, FCSDR, Navigation, FUSRAP, and CAP** - If the Resource Type is CONSTSVCS (Construction Contract), or if the "CW Budget Aggregation Override" activity code is "Yes", then the Budget Item ID will represent the Activity Number. In all other cases, the Budget Item ID will be "NCS" (Non-Construction Services).
- **EN Stewardship and Recreation** - The Budget Item ID will represent the Best ID assigned at the resourced activity level in PM. If there is not a BEST ID assigned, the Budget Item ID will be "UNK" (Unknown).

- **Hydropower (Increments 1, 2, and 2.5)** – If the Resource Type is CONSTSVCS, or if the "CW Budget Aggregation Override" activity code is "Yes", the Budget Item ID will represent the Activity Number. Otherwise, the Budget Item ID will represent the Work Category Code assigned at the resourced activity level in PM. If there is not a Work Category Code assigned, the Budget Item ID will be "NCS".
- **Hydropower (Increment 5)** – If the "CW Budget Aggregation Override" activity code is "Yes", the Budget Item ID will represent the Activity Number. Otherwise, the Budget Item ID will represent the Work Category Code assigned at the resourced activity level in PM. If there is not a Work Category Code assigned, the Budget Item ID will be "NCS".
- **Hydropower (Increments other than 1, 2, 2.5, and 5) and Water Supply** – The Budget Item ID will represent the Activity Number. Thus, each activity is brought into OFA individually.

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

(l) **Activity Rankings.** Each activity in PM may have a rank number assigned to it, and duplicate ranks are allowed. Activity rankings will be used to determine the relative priority of activities within a project, district, and MSC. However, the MSC rank that is added in OFA will be the primary ordering rank used within the budget. Therefore, the activity ranks in PM are optional and will not transfer into OFA.

(m) **Joint Activities.** Refer to paragraph C-2.3.b in Annex C for instructions concerning "JOINT" activities.

(n) **Program Codes**. The Program Code identifies the AMSCO/CWIS/PWI associated with a P2 project. A Program Code must be assigned to every CW P2 project for which funds are requested. The Program Code is a project level code which is entered in Oracle Projects (OP). Refer to Appendix N in the FY 2008 Execution EC for further guidance concerning Program Codes.

(o) **Multi-Year Funding Streams**. OFA also provides a data entry form named "PBS Multi-Year Funding Stream DEF" which is used to enter funding streams by FY, Project, Business Line, Type of Funds, Work/Financial Category (Federal, Inland Waterway Trust Fund (IWTF), Non-Fed Cash, Non-Fed In-kind, etc.), Phase, and Funding Level for all I, C, O&M, MR&T, and FUSRAP studies and projects. Initially, the following Funding Levels are required: Initial, Recommended-1, Recommended-2, and Capability.

(p) Refer to the "Prepare Multi-Year Funding Streams in OFA" section of the PBS Training Workbook document for detailed instructions on using the data entry form**.** Until HQ or Army Ranks are established the PY and outyear funding requirements will be manually entered in the PBS Multi-Year Funding Stream data entry form. Later on in the cycle, the PY amounts may be

auto-populated based on HQ Rank or Army Rank. The focus of the outyear data submission is to obtain the PY through PY+4 funding stream, but, except for O&M, the project's total funding requirement through Balance-to-Complete should be filled in so that the sum of all amounts equals the current fully-funded total project cost estimate.

(2) **ITIPS.** Instructions for input to the ITIPS database were provided by CECI-TR in the latest ITIPS User's Manual, accessible at http://www.usace.army.mil/itips. These instructions cover input of automation requirements, discussed in Annex F. This database remains open; but input is required by the date shown under "Automation Program" in Table 2.

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

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

d. **E-mail and FTP Data.**

(1) **Justification Statements and Books.**

(a) **General**. Complete your updates A-2.1 through A-2.4, B-2.4, C-2.1, C-5.3a through 5.3b by dates specified in Table 2.

(b) Use 10-point regular Arial font, automatic line height, line spacing of 1, and margins of 1" top and bottom, and 0.5" both sides. (In "File," "Page Setup," "Margins," set bottom margin at 1.5" and footer margin at 1.0" from bottom edge of page. This provides a 0.5" footer height for printing the footer and page number.) Do not number pages.

(c) Develop project completion schedules consistent with the President's budget funding amounts. The PM data will be queried to obtain schedules for the report formerly provided by the PB-2As. These schedules will be provided to the Appropriations Committees for the record.

Do not show future advanced appropriations in the summarized financial data on your justification sheets. Prepare the summarized financial data in accordance with the examples in Illustration B-2.4 of Annex B.

(d) Submit justification statements, as completed, via e-mail to your RIT, as appropriate, for review. Coordinate e-mailing logistics with your RIT, beforehand.

(e) Justification Materials for Studies, PED, and Construction Projects Submission. Draft justification materials are to be provided for all studies, PEDs, projects that were not in PY-1 (FY 09) budget and are proposed for inclusion in the Army's recommendations to OMB. See Table 2 for the due date for these draft materials. Justification materials for new work are due earlier than justification material for other work.

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

(g) **Congressional Submission.** The ultimate product of the justification development process is the justification book for Congress - one volume of justification material for each business line. Each division is responsible for developing its own data using whatever software it chooses, such as computer-aided design (CAD), and Microsoft Word and Excel software. However, ultimately, each division must convert its book to an Adobe Acrobat file for efficient electronic transmission and publication. In order to ensure that your book will "present" in the Adobe Acrobat file as it does in the development software file, you must select the Adobe Acrobat printer in the development software before finalizing your product in that software. For example, to ensure that what you see in Word is what you get in Adobe Acrobat, you must select "File," "Print," "Printer," "Acrobat PDFWriter" in Word before finalizing in Word. Doing this first of all will spare you untold lost time and frustration. Of course, if you want to print your finalized file at a local printer, simply select the printer and print, but do not modify the file while the local printer is selected.

(h) Prepare a table of contents list studies and projects alphabetically by Business Line by Account. Include page numbers. On each page of the document and maps, show the date of Army's press conference (to be provided later) centered in the bottom margin, 1" from its bottom edge. **Preparation of status maps format and instructions are referenced in ER -11-2-240, Appendix C (Project Status Maps). Maps format must be in accordance with the regulation.**

(i) Justification documents for Replacement projects are required for C projects, including justification statements and status maps. Justification documents for Rehabilitation are required for O&M. For rehabilitation of inland waterways locks and dams and associated structures, show half of funding from the Inland Waterway Trust Fund.

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

Add the following statement (less quotation marks) after the introductory paragraph for each category, as applicable:

”For recreation areas, part of the requested amount will be offset by a transfer from the Special Recreation Use Fees Special Fund (SRUF)"

(k) Include rehabilitation requirements for projects as part of single line item entries on the justification of estimate statements with the following remark (less quotation marks) under "Reason for Change and Major Maintenance Items:"

"Includes Rehabilitation at $XXX. See justification following this table."

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

(m) Submit these as specifically requested later. Submit final versions, printed front to back and collated into a single book (with a cover like last year's, including the disclosure statement, and paginated and dated table of contents, budget summary, and status maps, as applicable) in a single Adobe Acrobat file.

(2) **Other.** The Continuing Authority Program is assigned to Annex G**.** The Homeland Security/ Emergency Management Business Line Manager (BLM) will provide instructions to cover FC&CE activities of former Annex D, requiring input by e-mail or FTP directly to that office by dates specified in Table 2.

(a) **Hardcopy Data.** Provide hardcopy items required (e. g., certifications, etc.) by dates specified in Table 2.

(b) **Document Marking.** All submissions required by this EC are not to be released outside the Department of the Army. See reference 3.e.(10), ER 11-2-240, “Civil Works Activities - Construction & Design,”, for instructions regarding the marking of documents for restricted distribution.

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

15. **Certifications of Compliance.** You must submit, to CECW-ID, at least two, and possibly four, certifications that your program submission complies with laws and an Executive Order. The two certifications always required include one by district commanders regarding compliance with an Executive Order on data sharing, and one by the MSC directors of programs management regarding compliance with law on use of management controls. The other two possibly required are both by district commanders - both regarding compliance with coastal barrier laws. Each certification is discussed below.

a. **Executive Order on Geospatial Data.** Reference 3.e.(10), ER 1110-1-8156, "Policies, Guidance, and Requirements for Geospatial Data and Systems," and EM 1110-1-2909, "Geospatial Data and Systems," assist USACE in protecting its investment in geospatial data and systems and in complying with Executive Order 12906, "Coordinating Geographic Data Acquisition and Access - The National Spatial Data Infrastructure." USACE collects a variety of geospatial data to produce products such as river and harbor maps, charts, and drawings; real estate maps; environmental and economic studies; and engineering studies and drawings. Paragraph 7.g(4) of the ER explains that, beginning with the FY97 Civil Works program cycle, each district commander will submit a certification, modeled after Illustration 2, certifying that his command has documented new geospatial data that it has created and made this documentation (metadata) available via the National Geospatial Data Clearinghouse on the Internet. The certification is due by the date shown under “Main Part” in Table 2.

b. **Coastal Barrier Laws.** OMB's Circular A-11, Section 12.5(s) states that estimates must not include any new federal expenditures or financial assistance prohibited by the “Coastal Barrier Resources Act” (CBRA), PL 97-348. In addition, the ”Coastal Barrier Improvement Act of 1990,” PL 101-591, amending CBRA, requires that the Corps certify annually to Congress and the Secretary of Interior that it was in compliance with the provisions of CBRA, as amended, during the previous fiscal year. Therefore, each District Commander whose district includes areas covered by the Coastal Barrier Resources System will submit two certifications - one modeled after each Illustration 3A and 3B certifying, respectively, that his program request is in compliance with these laws and that no funds were obligated in the past fiscal year (PY-2) for purposes prohibited by them. Note that PL 101-591 added new units to the Coastal Barrier Resources System. The certifications are due by dates shown under Main Part in Table 2.

c. **Management Control Law.** Federal agencies are required by law to establish "management controls" for the activities they manage, and to provide assessments of their effectiveness to the President and Congress, annually. To this end, functional proponents identify requirements for compliance with law, including safeguarding assets, ensuring adequate records, and promoting efficiency and effectiveness of program accomplishment, and reflect

them in checklists. Army's management control effort, implemented by AR 11-2, "Management Control," specifically includes the Civil Works Program. The new management control checklist for Civil Works Program Development is provided as Illustration 4. This is for use by programs management organizations in MSCs and districts, as explained below:

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

(2) A "no" response to a checklist question suggests a potential management weakness. However, if it is the result of a special case or specific exception, then probably there is no management weakness. You are the judge. If you determine that a weakness exists, you must correct it as quickly as resources and essential mission priorities permit. No upward reporting is required.

(3) If a management weakness requires the attention or awareness of the next higher level of management, it is a *"material weakness."* This is a judgment call on the relative seriousness of the problem. It is made at each progressive echelon, based on each manager's professional judgment. Material weaknesses discovered by districts are reported to the MSCs, which determine whether to report them to CECW-BD. The reports must specify corrective actions taken or planned. The highest echelon receiving the report will evaluate the corrective actions, provide assistance, if needed, and track progress. Consult AR 11-2 for help in determining whether a weakness is "material."

(4) Do not send checklists to HQUSACE. Each MSC director of programs management will submit a certification, modeled after Illustration 5, certifying that the checklist was used by the districts, as applicable, and MSC. The certification is due by the date shown in Table 2, and should be submitted to CECW-IN.

16. **Coordination.** The CECW staff will work closely with MSC office staffs throughout the program development process to assure that the CECW recommended program, as well as alternative programs, are thoroughly coordinated. Coordination will continue after receipt of OMB's passback and during development of Army's proposed appeal. The 5 to 10-year program will be revised, as necessary, to reflect resolution of the passback appeal and final President's Program.

FOR THE COMMANDER:

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

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

DEFINITIONS/GLOSSARY SECTION

INCREMENTS:

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

Activity: A component of work performed during the course of a project. An activity could be a process (e.g. collection of data) or lead to a deliverable (write a report). Activities are the building blocks of the P2 system – they have assigned durations, resources, and relationships.

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

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

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

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

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

Increments 5-8: Not used.

Increment 9: Place unbudgetable studies.

Construction Increments. All contracts will be fully funded if the estimated contract total (total of both federal and non-federal shares) is $20M or less. For all contracts that are proposed for full funding, the total estimated amount for EDC and S&A will be included with the contract. Each contract included in any increment must be shown separately to allow individual funding decisions based on the performance metrics and must be shown in priority order by District and MSC Rank. This section includes: specifically authorized projects, MR&T construction, dam safety projects, deficiency corrections projects and dam safety, seepage, static instability studies.

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

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

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

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

Increments 5-6: Not used.

Increment 7: This increment will identify ten projects which have ecosystem restoration outputs but will be budgeted in Operations and Maintenance with costs assigned to other business lines

or as joint project costs. Only the ecosystem restoration portions of Assateague, Lower Cape May and Houston-Galveston are included in this category.

(NAD - Assateague, Popular Island, Lower Cape May; NWD - Columbia River Fish Mitigation , Chief Joseph Gas Abatement, Howard Hanson Dam Ecosystem Restoration, Lower Snake River Fish and Wildlife Compensation Plan, Willamette River Temperature Control,, Missouri River Fish and Wildlife Recovery; SWD – Houston-Galveston Navigation Channels).

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

Increment 9: This increment will include unbudgetable projects that are inconsistent with Administration policy, such as environmental infrastructure. Also, the Federal funds for shore protection projects that require beach renourishment (not associated with Federal navigation projects) should be identified and included in this increment.

Continuing Authority Program Increments:

Increment 1: This increment includes: continuing or new items for phases that were budgeted in PY-1; Excluded are: new phases and items requiring initiation of new phases; items for projects that have been terminated, completed, funded for completion, or which are no longer likely to produce an eligible project; and unbudgetable activities. Increment must be performance based and integral with a study/project with high outputs and consistent with ranking.

Increment 2: This increment includes: items for previously funded phases; Excluded are: new phases and items requiring initiation of new phases and unbudgetable items. Increment must be performance based and integral with a study/project with high outputs and consistent with ranking.

Increment 3: This increment include item for continuing or new phases to sustain the efficient PMP project schedule. Excluded are items which advance the efficient project schedule and unbudgetable activities. Increment must be performance based and integral with a study/project with high outputs and consistent with ranking.

Increments 4-8: This increment includes additional capability for continuing or new phases to enhance or advance the PMP project schedule. Excluded are unbudgetable activities. Increment must be performance based and integral with a study/project with high outputs and consistent with ranking.

Increment 9: This increment includes unbudgetable activities. Excluded are budgetable activities. Remarks should provide a clear explanation of why the item is not budgetable.

Operation and Maintenance Increments (includes O&M General and MR&T O&M):

The philosophy is to use increment 1 as the minimum level to account for critical routine operation and maintenance activities and to use increment 2 to account for critical non-routine activities on projects. **The total of Increment 1 plus Increment 2 represents the minimal program and is limited to the amount in Table C 2.2 by MSC based on 75% of prior five fiscal year Budgets.**

The total of Increments 1, 2 and 3 represents no more than 100% of the amount in **Table C 2.2** by MSC.

New starts are not applicable to the O&M Program.

Increment 1: Only critical routine activities can be included in this increment. Critical cyclical routine activities may be included in Increment 1. Routine activities are those that have been conducted every year for at least the last five years, for example the operation of a powerhouse or are required to meet legal mandates, environmental (ESA/Biological Opinion) requirements, authorized mitigation requirements, and historic preservation. Cyclic activities are those that are required on a regular basis, but not each year. An example of a cyclic routine activity would be projects where dredging is needed on a regular recurring basis, but not every year, e.g. dredging is needed only every two years. Increment must be performance based and integral with a study/project with high outputs and consistent with ranking.

Increment 2: Only critical non-routine activities may be included in this increment. Critical non-routine activities are those that must be accomplished to insure project safety, and critical maintenance actions that are required to keep the project operating and delivering benefits. Non-routine activities are actions that are "project like" in that they are a unique action with a specific beginning and end. Examples of non-routine actions would be the replacement of a potable water well, or paving a project access road. This increment **includes** major maintenance **and** rehabilitation. Each non-routine activity must be shown separately to allow individual funding decisions based on the performance metrics and must be shown in priority order by District and MSC Rank. Increment must be performance based and integral with a study/project with high outputs and consistent with ranking.

Increment 3: This increment includes critical operation and maintenance activities, both routine and non-routine, for the 25% above the minimal program level, that are defined by the state of the practice and are needed to sustain the expected future benefits of the project. Preparation of reports for Major maintenance (MM) and rehabilitation (MR) can be included in this increment. MM and MR activities must have approved reports before they can be included for implementation. Increment must be performance based and integral with a study/project with high outputs and consistent with ranking.

Increment 4: This increment includes operation and maintenance activities, both routine and non-routine, above the 100% level of the Table C 2.2 level by MSC, that are defined by the state of the practice and are needed to sustain the expected future benefits of the project. In most cases, activities in this increment will support continuing the level of service that customers, stakeholders, and others have come to expect and depend-on for sustaining public safety and economic, environmental and social benefits. Multiple Increment 4 activities should be submitted that reflect the logical pieces of routine or non-routine activities beyond the 5 year average limit. Increment must be performance based and integral with a study/project with high outputs and consistent with ranking.

Increment 5: Activities that have a high expected return on investment that enable greater levels of performance in future years should be included in this enhanced or capability Increment. Increment must be performance based and integral with a study/project with high outputs and consistent with ranking.

FUSRAP Increments:

Investigations/Study Increments:

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

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

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

Increment 4: Place new start studies in Increment 4, for example a new Site Inspection at a new site. Increment must be performance based with high outputs and consistent with ranking. Increment must be performance based and integral with a study/project with high outputs and consistent with ranking.

Increments 5 – 8: Not used.

Increment 9: Place unbudgetable studies for potential sites in Increment 9.

Implementation (Construction) phase Increments:

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

Increment 2: This increment will include the activities needed to sustain (not fall behind/not accelerate) the efficient project schedule based on the PMP. The total of the activities included in this level is not limited by the PY-1 budget. Multiple contracts should be submitted as separate increment requests and shown in priority order by District and MSC Rank. New starts may not be included. Increment must be performance based and integral with a study/project with high outputs and consistent with ranking.

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

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

Increments 5-9: Not used.

CONTRACTS

Continuing Contracts: For all contracts using a continuing contract clause or an incrementally funded contract clause, the amount estimated for PY-2 (FY 08) contractor activities and reserved to the contract must not exceed the amount provided for the project in PY-2 appropriations, plus any carryover for that project, and any amounts approved for reprogramming to the project. All funds to be reserved must be available for the project prior to bid opening.

Incremental Contracts: The use of incremental contracts (i.e., contracts using the incrementally funded clause (EFARS 52.232-5004 or DFARS 252.232-7007), must be done carefully and judiciously as part of the acquisition planning process.. The incremental funding clause may be used for projects that do not have funding in the budget for the out years. The incrementally

funded contract scope of work to be funded with PY-2 (FY 08) funds must produce a useful increment of work (i.e. increment of work that produces benefits or outputs, and will remain in a safe condition) or navigation reach that will not rely upon additional out year funding to implement. So long as the scope of work to be funded in with PY-2 funds will complete a useful increment of work or navigation reach that does not rely upon additional out year funds to implement, use of the incremental funding clause can be approved by the District Commander. However, the ASA(CW) must approve the use of any incrementally funded contract that does not complete a useful increment of work or navigation reach with funds available to the contract in PY-2 in advance of solicitation.

Major Maintenance: Any Operation and Maintenance work item costing $3M or more that is not an element of rehabilitation.

Programmed: Any part of project that is not unprogrammed.

Project Partnership Agreement/Partnership Agreement: Reference WRDA 2007 H.R. 110-280 WRDA 2007 Conference Report, Section 2003 "REFERENCES TO COOPERATION AGREEMENTS". - Any reference in a law, regulation, document, or other paper of the United States to a "cooperation agreement" or "project cooperation agreement" shall be deemed to be a reference to a "partnership agreement" or a project partnership agreement," (PPA), respectively.

Ranking: Activity rankings will be used to determine the relative priority of activities within a project, district, and MSC.

Rounding: All cost estimates shall be rounded to the nearest one thousand dollar ($1000).

MULTI-YEAR FUNDING STREAM:

Investigations and Construction Appropriations:

Initial = Increment 1 Definition
Recommended-1 = Increment 2 Definition
Recommended-2 = Increment 3 Definition
Capability = Increment 4 Definition

Operation and Maintenance Appropriation:

Initial = Increment 1 & 2 Definition (Note increments 1 & 2 are limited to 75%)
Recommended 1 = a share or percentage of Increment 3.
Recommended 2 = the remaining share or percentage of Increment 3 and could include a share or percentage of Increment 4
Capability = the remaining share or percentage of Increment 4 and Increment 5

Continuing Authorities Program: Follow guidance outlined in the CAP

COMMON DATA FIELD IN ALL Business Lines

1. BUSINESS LINE = Abbreviation for Business Line, such as ENR.

2. EROC = Two character code for district, such as B1 for Memphis District.

3. MSC = Three letter abbreviation for the MSC, such as MVD. This is a display-only field which is auto-populated based on the EROC. Data entry is not required.

4. DISTRICT = Three letter abbreviation for district, such as NWK. This is a display-only field which is auto-populated based on the EROC. Data entry is not required.

5. APPROP ABBREV = An abbreviation for the Appropriation Account. The abbreviations are: I (Investigations), C (Construction), OM (O&M), MRT-I (MR&T Investigations), MRT-C (MR&T Construction), MRT-OM (MR&T O&M) , and FUSRAP. This is a display-only field which is auto-populated based on the CW TYPE OF FUNDS. Data entry is not required.

6. CW TYPE OF FUNDS = An 11 character code that combines the numeric Appropriation Account codes with the numeric Category-Class-Subclass (CCS) codes. Appropriation Account codes (characters 1-7) are Investigations (96 3121), Construction (96 3122), Operations and Maintenance (96 3123), Mississippi River and Tributaries (96 3112), and FUSRAP (96 3130). These are followed by a space (character 8) and then the three digit CCS code (characters 9-11) which can be found in the Definitions/Glossary section in the main EC.

7. PROGRAM CODE = A code which identifies the AMSCO/CWIS/PWI associated with a P2 project. A Program Code must be assigned to every CW P2 project for which funds are requested. The Program Code is a project level code which is entered in Oracle Projects (OP). Refer to Appendix N in the FY 2008 Execution EC for further guidance concerning Program Codes.

8. P2 PROJECT NUMBER = A six digit numeric code which identifies a project in P2. This code is system-generated when a project is initiated in Oracle Projects. In OFA it is a display-only data field.

9. BUDGET ITEM ID = A code to uniquely identify multiple entries within the same EROC, P2 Project, CW Type of Funds (Approp/CCS), Business Line, Increment, and Phase. See paragraph 13c.(1)(j) in the main EC for more information concerning Budget Item ID.

10. INCREMENT = Enter the appropriate number in accordance with the guidance in the Definitions/Glossary section in the main EC. Enter a “1” if the budget item meets the requirements for inclusion in the Initial increment as defined. Enter a “2” if the budgetable item should be considered for the second Increment, etc. Every project may not necessarily have a budget item in the first two Increments. A project may have multiple budget items in an increment.

11. DIST RANK = The budget item’s rank in the district’s request.

12. MSC RANK = The budget item’s rank in the MSC request.

13. HQ RANK = The budget item’s rank in the HQ request. HQ will complete this item. It is not available for District or MSC entry.

14. ARMY RANK = The budget item's rank in the Army request. HQ will complete this item. It is not available for District or MSC entry.

15. PRESIDENT BUDGET RANK = The budget item's rank in the President's Budget Rank, will be entered by HQ after OMB Passback. It is not available for District or MSC entry.

16. PHASE = A letter code will be used to indicate phase. See the Definitions/Glossary section in the main EC for a list of valid values. Note that Joint activities on multi-purpose hydropower projects (Cat-Class 300) will have a phase code of OJ or MJ as appropriate.

17. PHASE STATUS = Status of the Phase listed in column 16 will be indicated with a letter code. NP = New Phase; CN=Continuing; LY= Last year of phase. Only use LY if FY2010 is the last year for which funding will be requested for the phase (not for a contract). For Reconnaissance and Construction initiation, a new start should be coded as a New Phase in this column. If a study or a project is completing one phase and starting a new one in the PY (e.g. finish Feasibility and start PED), each should be a separate entry (one LY and one NP). If there are multiple budget items for one phase of a project (especially construction) this code may vary. Perhaps the first entry would be NP and the second one CN and the last one if funded would complete the phase and be LY.

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

19. PROGRAM NAME = Name associated with the Program Code which is entered in Oracle Projects. In OFA it is a display-only data field.

20. P2 PROJECT NAME = Name of the P2 project. The project name is entered in Oracle Projects. In OFA it is a display-only data field.

21. SYSTEMS CODE = The System Code is used to identify the primary system in which the project or study (Program Code) is located. See Table C-5.1 for a list of valid system codes. Required entry for all items.

22. BASIN CODE = The USGS Hydrologic Unit Codes (HUC) will be used to identify systems/watersheds. The four-digit code for the appropriate sub-region as defined by USGS will be entered for every budget item. These codes may be found at **http://water.usgs.gov/GIS/huc_name.html**. Some programmatic elements may cover more than one sub-region. If there are separable elements enter the code that is appropriate for the separable element. If there are no separable elements enter the code applicable to most of the project or area where funding will be applied. Required entry for all items.

23. STATE = Enter the two letter abbreviation for the primary state in which the study or project (Program Code) is located.

24. CONTRACT TYPE = Required for all contract items in Construction and any contract with a remaining amount over $20,000,000 in any phase. Enter one of the following: CC for continuing contract; CF for fully funded contract; CB for base contract with options; or CI for incrementally funded contract.

25. CURRENT BUD - FED = This is a display-only field which is auto-populated from the project's current schedule in Primavera / Oracle Projects. It displays the PY 'At Completion Cost' Federal (Corps) amount for the budget item.

26. CURRENT INFLATION ADJUSTED BUD - FED = This is a display-only field which is auto-populated from the project's current schedule in Primavera / Oracle Projects. It displays the PY 'At Completion Cost' Federal (Corps) amount for the budget item, adjusted by the inflation rates contained in this EC.

27. BUDGET REQUEST - FED = The Federal (Corps) amount requested for the work proposed to be accomplished with this budget item in FY 2010. **Enter the amount in whole dollars, rounded to the nearest thousand. Example: Five million dollars should be entered as 5,000,000.**

ILLUSTRATION 1

DATE:_____

CERTIFICATION OF COMPLIANCE WITH SECTION 3(D) OF EXECUTIVE ORDER 12906

and SECTION 8.j of ER 1110-1-8156

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

Colonel, Corps of Engineers

Commanding

FOR ILLUSTRATION PURPOSES ONLY

(TO BE TYPED AS NECESSARY)

ILLUSTRATION 2A

DATE: _____

CERTIFICATION OF COMPLIANCE WITH COASTAL BARRIER RESOURCES ACT

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

Colonel, Corps of Engineers
Commanding

FOR ILLUSTRATION PURPOSES ONLY
(TO BE TYPED AS NECESSARY)

ILLUSTRATION 2B

DATE: _____

CERTIFICATION OF COMPLIANCE WITH COASTAL BARRIER RESOURCES ACT

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

Colonel, Corps of Engineers
Commanding

FOR ILLUSTRATION PURPOSES ONLY
(TO BE TYPED AS NECESSARY)

ILLUSTRATION 3
MANAGEMENT CONTROL EVALUATION CHECKLIST

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

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

INSTRUCTIONS. Become thoroughly familiar with the contents of the Program EC and read paragraph **15** before completing the checklist. Answers must be based on the **actual testing** of key management controls (such as **document analysis, direct observation, sampling, simulation, other).** Answers which indicate deficiencies must be explained and corrective actions indicated in support documentation.

TEST QUESTIONS:

1. Are funding schedules continuously reviewed and adjusted to reflect Congressional actions, the local sponsors' financial capability, and project progress?
Tested by:
Response: YES_____ NO_____ NA_____

Remarks:

2. Does development of the multi-year programs follow the guidance included in the applicable appendices of the Program EC?
Tested by:
Response: YES_____ NO_____ NA_____

Remarks:

3. Are alternative multi-year program proposals fully documented?
Tested by:
Response: YES_____ NO_____ NA_____

Remarks:

ILLUSTRATION 3 (Continued)
MANAGEMENT CONTROL EVALUATION CHECKLIST

4. Is the multi-year Capability program independent of the other programs, yet consistent with Army policy and approved project cooperation agreements?
Tested by:
Response: YES_____ NO_____ NA_____

Remarks:

5. Have the "Class 1" rates of Table 1, “PY Program, Cost Estimate Updating,” been applied to the pay-related costs for Civilian employees?
Tested by:
Response: YES_____ NO_____ NA_____

Remarks:

6. Have the "Class 2" rates of Table 1, “PY Program, Cost Estimate Updating,” been used to update costs for consultants and AEs used in the various preconstruction planning and construction stages of work?
Tested by:
Response: YES_____ NO_____ NA_____

Remarks:

7. Have the "Class 1" and “Class 2" rates of Table 1, “PY Program, Cost Estimate Updating,” been used for the period PY-1 through PY+19 for all activities?
Tested by:
Response: YES_____ NO_____ NA_____

Remarks:

8. Has the procedure in Footnote 8 of Table 1, “PY Program, Cost Estimate Updating,” been used to determine rates for use in updating cost estimates beyond PY+19?
Tested by:
Response: YES_____ NO_____ NA_____

Remarks:

ILLUSTRATION 3 (Continued)
MANAGEMENT CONTROL EVALUATION CHECKLIST

9. Are the appropriate discount rates being used to compute the benefit-cost ratios of projects?
Tested by:
Response: YES_____ NO_____ NA_____

Remarks:

10. Is the fiscal year of the approval date of the current economic analysis?

a. For new and continuing PED, not more than three years older than the fiscal year of the submission date of the program request to HQUSACE?
Tested by:
Response: YES_____ NO_____ NA_____

Remarks:

b. For new construction starts, not more than three years older than the fiscal year of the assumed program decision date by the Administration and Congress?
Tested by:
Response: YES_____ NO_____ NA_____

Remarks:

11. Were benefit-cost ratio computations based on benefits in the latest approved economic analyses and current project costs deflated to the price levels of such benefits?
Tested by:
Response: YES_____ NO_____ NA_____

Remarks:

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

Remarks:

ILLUSTRATION 3 (Continued)
MANAGEMENT CONTROL EVALUATION CHECKLIST

13. Do recommended new construction starts have firm M-CACES baseline cost estimates?
Tested by:
Response: YES_____ NO_____ NA_____

Remarks:

14. Have new start recommendations been screened according to the criteria established in the Program EC?
Tested by:
Response: YES_____ NO_____ NA_____

Remarks:

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

a. Construction capability is shown for the fiscal year following PED completion?
Tested by:
Response: YES_____ NO_____ NA_____

Remarks:

b. Project cost estimates are identical?
Tested by:
Response: YES_____ NO_____ NA_____

Remarks:

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

ILLUSTRATION 4

DATE:_____

CERTIFICATION OF USE OF MANAGEMENT CONTROL EVALUATION CHECKLIST

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

Director of Programs Management

FOR ILLUSTRATION PURPOSES ONLY

(TO BE TYPED AS NECESSARY)

FY 10 Cost Estimate Update Rate Table Fi

Table 2 Summary of Submission Requireme

Table 3 Codes Final update. doc

APPENDIX I
HOMELAND SECURITY/EMERGENCY MANAGEMENT
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APPENDIX I

Homeland Security/Emergency Management

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

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

I-3. Civil Works 5-Year Plan. The Civil Works Five Year Development Plan purpose is to present an overview on how the funding for the Civil Works program over a five-year period will produce results that contribute to the achievement of strategic goals and objectives in the Civil Works Strategic Plan. For the Homeland Security/Emergency Management program the proposed increments included in this Appendix were developed to provide the Homeland Security/Emergency Management 5-Year Plan. The five-year plan focus is to undertake projects and activities that provide the highest net economic and environmental returns on the Nation's investment. See paragraph 8 (b) of the main part of the EC.

I-4. Program Objectives. Table I-1 immediately below displays the FCCE Program Objectives and Performance Measures published in the March 2004 Civil Works Strategic Plan. The CW Strategic Plan was developed with an explicit assumption of an unconstrained resource environment to encourage an unconstrained assessment of the nation's water resources needs and potential Corps response. Preparation of the PY (FY10) Budget Request requires the recognition of a constrained budget environment and the ongoing effort to evolve better budget linked performance measures. Table I-2 displays the program performance measures and performance ranking and rating criteria which support and/or supplement Table I-1 program objectives and performance measures to reflect the near term realities of a constrained PY budget environment.

TABLE I-1
Strategic Plan Objectives and Performance Measures

Program Objectives	Performance Measures
1. Attain and maintain a high, consistent state of preparedness.	– Planning Response Team Readiness index – PL84-99 Response Team Readiness index – Percent of scheduled inspections performed for all non-Federal Flood Control Works in Rehabilitation and Inspection Program (RIP), as required by ER 500-1-1
2. Provide rapid, effective, efficient	– Percent of time solutions are developed

all-hazards response.	and implemented (either repaired to pre-flood conditions or possible non-structural alternative) prior to next flood season
3. Ensure effective and efficient long-term recovery operations.	– Percentage of Federal and non-Federal flood control works in the Rehabilitation and Inspection Program with a satisfactory condition rating

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

TABLE I-2
Measures Rating Criteria

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

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

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

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

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

a. **Ceiling and Recommended Programs**. This activity consists of functions required to ensure that USACE activities are ready to respond to a broad range of disasters and emergencies. It includes coordination, planning, training, and the conduct of response exercises with key local, state and federal stakeholders/partners under our own statutory authorities and in support of the Federal Emergency Management Agency, Department of Homeland Security. It also provides the vehicle for the purchase and stockpiling of critical supplies and equipment and support facilities (Emergency Operations Centers) to include the purchase additional and upgrade existing deployable tactical operations systems (DTOS). The Deployable Tactical Operations System, (DTOS), provides USACE with the necessary equipment to begin providing emergency aid to a disaster stricken community immediately. This requirement for DTOS is budgeted over a 3 year period. These activities ensure USACE personnel assigned

emergency assistance responsibilities are trained and equipped to accomplish their missions. This includes, but not limited to, personnel assigned to Emergency Operations Centers, Crisis Management Teams, Crisis Action Teams, Regional Operations Centers, Planning and Response Teams, Special Cadres, Levee Inspection Teams and general response personnel.

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

I-8. Special Considerations or Special Rating Criteria.

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

b. Due to the uncertainty of the number and severity of disasters, it is difficult to determine the program funding requirements for activities other than the baseline operational and preparedness costs.

I-9. Work Plan (Spreadsheet) Guidance.

a. **Level 1/Increment 1** is your baseline budget request that maintains the existing levels of service/performance. It includes only current approved FTEs (no new staff requirements), existing leases not funded through revolving fund, and required ancillary costs to support baseline requirements. The request must also identify those outcomes and outputs that can be achieved at this level.

b. **Level 2/Increment 2** is your recommended request which reflects next increment of funding above Level 1/Increment 1. Increment 2 that would allow a command to improve current readiness or fund additional readiness activities that were not previously funded, such as newly assigned Planning and Response Teams (PRTs). This would provide for positive contributions to the applicable business line performance measures. The request must identify those outcomes and outputs that can be achieved at this level. Justification for specific new items from the previous fiscal year must be provided.

c. When completing the Work Plan spreadsheets and P-2/OFA input the following additional guidance should be used**:**

(1) No response is needed in areas of effort where no work is planned. However, in those areas where a single major item, a group of like items, or several items will be accomplished which require significant resources each will be identified with an appropriate estimate.

(2) Under the Rehabilitation and Inspection Program, please provide a supplemental document that identifies those projects to be inspected with associated costs. The Work Plan (Spreadsheet) should

only have a roll up of the cost. However, Districts are requested to supplement the Work Plan with a separate sheet that indicates the projects and schedule for inspection. Refer to Sub-Annex C-2.2.h Inspection of Completed Works for guidance to develop the program year budget activities for inspections of non-Federal projects. Refer to Appendix III-5 for guidance on initial and additional increments for inspection activities.

(3) Justification for specific new items or cost increases exceeding 5% from the previous fiscal year must be provided separately as a comment in the spreadsheet.

(4) Additional remarks can be submitted on separate sheets of paper to assist in justifying your resource needs.

(5) The column L heading on the worksheet; FYXX should be changed to indicate FY09 or FY10 as appropriate. Data in the column should populate itself.

d. All work resources identified will be linked to the existing Performance Measures and should tie into current Mission Essential Task Lists (METLs) identified by each organization.

e. See attached sample work plan (Excel spreadsheet.)

May 08 EM spreadsheet.xls

1-10. P-2 Requirements.

a. P-2 will be used to summarize the Flood Control and Coastal Emergencies (FCCE) and National Emergency Preparedness Program (NEPP) Categories for the FY10 budget for HS/EM. Emergency activities requiring Category 200 (Emergency Operations) funds will not be included in this budget exercise.

b. This section provides guidance for each program, but there are certain common structures for each program that will be represented within Primavera Project Manager (PPM). The program consists of a set of projects that are included in the budget. These projects consist of a set of activities that are required to fulfill the purpose of the project. For a category/project in Homeland Security/Emergency Management (HSO) FCCE and/or NEPP, these activities are required for that project during the budget year. The activities within these projects require resources. These resources are labor, contracts, travel, supplies and materials, etc. The total cost of supplying these resources for a given activity represents the budget amount that the activity requires within the budget. The total cost of all activities represents the total budget required by the project.

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

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

e. The instructions that follow describe the specific tasks that must be done to develop the FY10 budget for Corps HS/EM projects using PPM.

(1) General Directions.

(a) The HS/EM Appendix has been modified to add the use of P-2/Oracle Financial Analyzer (OFA) to summarize the Categories of funds requested for FCCE (Categories 100 and 300) and NEPP (Category 500).

(b) Project Managers must direct a local configuration manager to complete a change to existing P-2 projects in order to complete the budget in PM. This change is to assign a program code in Oracle Project.

(c) Project Managers must assign a program code, if one is not already assigned. The program code must be the six character AMSCO/CWIS code that has been assigned in CEFMS for the project. If multiple P-2 projects have been created from one AMSCO/CWIS, then each P-2 project must be assigned the same program code. A P-2 OP local configuration manager has the permission to add the program code to a project. The complete list of program codes is under review and will be added to the list of values for the program code in Oracle Projects. The program code can be added after the budget activities are added to a P-2 project.

(2) If using Primavera, the following information will aid data entry.

(a) Each Program Manager will direct a local configuration manager (LCM) to create a separate WBS for budget development. The WBS should be named Budget. The WBS should be “Planned” Status so that proposed budgets will remain in P-2 alone until ready for transfer to CEFMS. Additional child WBS levels can be added if needed to help prepare the budget. During FY10, the WBS will be marked as “Active” so that the budgets can be transferred to CEFMS.

(b) Each Project Manager must add the activities and resources needed to complete FY10 work. All work will be described as one or more activities that require resources to complete. On each activity which is resourced for FY10, enter the applicable increment value in the “CW Funding Increment” activity code; either a ‘1’ to signify the baseline funding requirement, or a ‘2’ for recommended funding.

(c) Each District and MSC Program Managers, Business Line Managers, Division Chiefs, Commanders, and other interested parties can begin review of the FY10 budget data as soon as it is added by the Project Manager. Each District and MSC will likely have their own processes to review budget data. Much of the review can be done using Primavera Project Manager and some can be done using Oracle Financial Manager. Budget reports will be developed to show detail and summary data needed to review the budget.

(d) FY10 resourced activities in PM will be extracted nightly into OFA. The level of detail of the data, either project-business-increment or process-business-increment-activity, will be determined by the HQ Business Line Manager. Once the data is extracted, each MSC will be responsible for adding performance measure data for each increment. HQ will evaluate each increment in the business area and set the overall rank of each increment.

(3) FY10 Required P-2 entries for HS/EM

(a) Each record (or row) of budget and performance measure data in the OFA data entry forms will be detailed by seven key fields:

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

(c) **EROC.** Used to identify District/Division

(d) **CW Type of Funds (Approp/CCS)** This data element identifies the FCCE and NEPP Categories which will be reported. For FY10, please roll-up all FCCE 110, 120, 130 and 140 classes into FCCE Category 100; FCCE classes 340 and 350 are to be rolled into FCCE Category 300; and NEPP Classes 510 through 560 are to be rolled into NEPP Category 500.

(e) **P-2 Project Number**. This is the P-2 project ID assigned when the project is created in OP.

(f) **CW Funding Increment**. This data element identifies the business funding increment for each activity. Increment 1 is used to identify the baseline funding requirement and Increment 2 signifies recommended funding. The data element, CW Funding Increment, is used to assign the increment number to each activity. This code will be used to identify an activity as a FY10 budget activity, and will be used to extract FY10 budget activities for OFA. Please do not assign this activity code to any activities that are not part of the FY10 budget.

(f) **Phase**. Enter N/A.

(g) **Budget Item ID**. Enter N/A.

Two additional Fields of Interests are:

(h) **Budget Request (Fed)**. Enter the requested amount in whole dollars. This Field is required.

(i) **Budget Item Justification**. This can be used to add comments or clarify any entries to the record. This Field is optional.

Note: that if two activities in Primavera have identical values for all seven key fields, they will be rolled together when they are extracted into OFA.

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ENVIRONMENT
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SUB-APPENDIX II-1

Overview

II-1.1. **Introduction.** Numerous Federal laws and executive orders establish National policy for and Federal interest in the protection, restoration, conservation, and management of environmental resources. These provisions include compliance requirements and emphasize protecting environmental quality. They also endorse Federal efforts to advance environmental goals, and a number of these general statements declare it national policy that full consideration is to be given to the opportunities that projects afford to ecological resources. Recent water resources authorizations have enhanced opportunities for Corps involvement in studies and projects to specifically address objectives related to the restoration of ecological resources and ecosystem management. Specific authorities for new individual studies and projects to restore ecological resources have also been provided in legislation. Examples of legislation that broadly supports Federal involvement in the restoration and protection of ecological resources include:

a. Federal Water Project Recreation Act of 1965, as amended.

b. The National Environmental Policy Act of 1969, as amended.

c. Water Resource Development Acts of 1986, 1988, 1990, 1992, 1996, 1999, 2000 and 2007.

d. Coastal Wetlands Planning, Protection and Restoration Act of 1990 (Title III of P.L. 101-646).

II-1.2. **Components of the Environment Business Line**.

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

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

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

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

II-1.3. **Increments**. Increments identifying similar levels of effort towards completion of a study or project or contribution to various level of project operation have been identified for each funding account. Only the first increments for investigation, construction, and Formerly Utilized Sites Remedial Action Program and the first two increments for Operations and Maintenance are constrained by monetary criteria. Otherwise the increments for Investigation, Construction, and Formerly Utilized Sites Remedial Action Program relate primarily to progress against the schedules in Performance Management Plans. Increments are not funding levels nor are they ranking criteria.

II-1.4. **Additional Information**. More detailed information on the budget development, including minimum eligibility requirements and terms are found in the main section and budget account Annexes A, B, and C. The following sections describe the three components included in the Environment Business Line in more detail, including performance measures, ranking criteria and data requirements for development of the PY budget.

II-1.5. **Ranking.** Each of the three components in the Environment Business Line will be ranked individually. Ranking will be within the individual component only and not across the Environment Business line.

SUB-APPENDIX II-2

Ecosystem Restoration

II-2.1. **Background**. The Corps recognizes ecosystem restoration as one of its primary mission areas within the Civil Works Program. This Sub-Appendix provides guidance for preparing the FY10 budget request. It is consistent with and does not alter the plan formulation and project justification guidance contained in ER 1105-2-100 and other planning and policy guidance.

II-2.2. **Purpose**. The goal of ecosystem restoration is to restore degraded ecosystem structure, function, and dynamic processes to a less degraded, more natural condition. Restored ecosystems should mimic, as closely as possible, conditions which would occur in the area in the absence of human changes to the landscape and hydrology with a minimum of continuing human intervention. This includes an emphasis on species native to the project location. Those restoration opportunities that are associated with wetlands, riparian and other floodplain, and aquatic systems are most appropriate for Corps involvement. The focus of projects/activities implemented under this section of the guidance is the restoration of ecosystems and ecological resources and not restoration of cultural and historic resources, aesthetic resources, clean up of hazardous and toxic wastes or recreation.

II-2.3. **Civil Works Program Objectives/FYDP.**

a. Table II-2-1 immediately below displays the Ecosystem Restoration Objectives and Performance Measures published in the March 2004 Civil Works Strategic Plan. Preparation of the FY10 Budget Request requires the recognition of the ongoing effort to link budget requests to program performance using the business line performance measures. Table II-2-2 displays the Ecosystem Restoration objectives, performance measures, and/or performance ranking and rating criteria which support and/or supplement Table II-2-1 objectives and performance measures to reflect the near term realities of a constrained FY 09 budget environment. Additionally, the strategic plan emphasizes the development of projects within a watershed framework and collaboration with other agencies and organizations. This is reflected in the data requirements.

b. The purpose of the Civil Works Five Year Development Plan (FYDP) is to present an overview on how the funding for the Civil Works program over a five-year period will produce results that contribute to achievement of the strategic goals and objectives in the Civil Works Strategic Plan. See paragraph 8 (b) “Civil Works Five Year Development Plan”. The FYDP for the Ecosystem Restoration Program focuses on cost effective restoration of nationally and regionally significant resources while providing a multi-year budgetary framework that facilitates achievement of program goals.

TABLE II-2-1
Goals, Objectives and Performance Measures in the Civil Works Strategic Plan

Goal 2: Repair past environmental degradation and prevent future environmental losses.	
Objective 2.1. Restore degraded, significant ecosystems structure, function, and process to a more natural condition.	
Objective	Performance Measures
<u>Ecosystem Restoration</u> 2.1.1. Invest in restoration projects or features that make a positive contribution to the Nation's environmental resources in a cost-effective manner.	Acres of habitat restoration completed. River miles of habitat restoration completed. Acres/river miles of nationally significant habitat restoration completed per dollar invested.

II-2.4. **Ecosystem Restoration Performance Measures.**

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

b. A nationwide perspective must be maintained to assure that available funding is used to provide the most cost effective restoration of nationally and regionally significant resources. It is also important to support timely completion of high performance studies and projects so that the expected benefits may be achieved as soon as possible. As our knowledge of ecosystem benefits and feasible restoration techniques increases, it is also important to have the capability to initiate new studies. The ranking criteria to be used in development of the PY budget are designed to assure that the available funding provides the greatest public benefit for the investment while continuing to investigate restoration opportunities and completing high performing projects in a timely manner so that benefits may be achieved as soon as possible. To achieve the Ecosystem Restoration goal, the budget objectives and ranking criteria contained in Table II-2-2 are established for the FY10 budget. Each of the objectives and criteria are designed to demonstrate that each budget item makes sense and contributes to the Civil Works objectives and the Ecosystem Restoration goal.

c. The data requested will also contribute to our ability to predict our performance regarding acres restored, the quantity of nationally significant acres restored, the cost to restore a nationally significant acre, and the percentage of the acres that are restored that are nationally significant. Quality of the restoration is a concern and seven of the criteria are designed to address this aspect of the ecosystem restoration program. A subset of the quality criteria is used to identify projects that restore nationally or

regionally significant habitat. Additional information about the ranking criteria is found in paragraph II-2.10 and in Table II-2-3.

TABLE II-2-2
Ecosystem Restoration Budget Ranking Criteria

CW Program Objective	Budget Objective	Ranking Criteria
Invest in restoration projects or features that make a positive contribution to the Nation's environmental resources in a cost-effective manner	Keep ongoing high performing studies or PEDs proceeding at an efficient rate if likely to produce recommendation for project (I)	Watershed for studies Significance - scarcity - connectivity - special status species - hydrologic character - geomorphic condition - self-sustaining - plan recognition Acres for PED Years to complete Other purpose outputs
	Start new phase of high performing studies or PED (I)	Watershed for studies Significance Acres for PED Other purpose outputs
Same	Complete on-going high performing studies and PEDs (I)	Significance Acres for PED Other purpose outputs
Same	Complete ongoing high performing construction phases to start getting benefits (C)	Significance Acres Other purpose outputs
Same	Keep on-going high performing construction proceeding at an efficient rate. (C)	Significance Acres Years to complete Other purpose outputs
Same	Initiate new high performing construction (C)	Significance Acres Other purpose outputs Years to complete

d. In order to achieve the above objectives, an Initial increment has been defined to assure uniformity across the country in building annual budgets from the same point. A system of ranking criteria has been established that is more detailed than the criteria in the Strategic Plan and will permit objective evaluation of incremental investment choices to assure that budget requests above the initial increment provide the greatest benefit for that investment. The initial increment and the system of ranking criteria will facilitate making informed and wise budgetary decisions.

II-2.5. **Performance Based Budgeting**.

a. Performance should be a primary factor in ranking budget items. Additional budget items above the initial increment should consist of logical, needed items of work that contribute to the Civil Works program goals. The basis for adding items of work will be demonstrable beneficial impact resulting from accelerating project completion and/or improved performance, such as cost savings achieved by combining work items. Budget items should be added in priority order based on the performance components and ranking criteria shown in Table II-2-3. Rationale for any exceptions to this rule must be documented in the Narrative Justification column. Each contract in the Construction Account or for similar activities in the MR&T and Operations and Maintenance Accounts must be a separate line item. All contracts of $20 million or less will be fully funded.

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

II-2.6. **Systems Approach.**

a. Consistent with the Civil Works Strategic Plan a systems approach or watershed approach is needed to ensure that investments are integrated into a whole that preserves or enhances performance and sustainability at the system level. A systems approach requires consideration of the investment needs and priorities of all the business lines within the watershed. All FY10 budget item requests (studies, construction, and O&M) will include the USGS HUC sub-region (4 digits) codes. These codes may be found at **http://water.usgs.gov/GIS/huc_name.html**. Additionally, for the PY (FY10) an O&M Systems Code will be assigned to identify the System that O&M projects will be grouped by. This is the initial step toward a comprehensive O&M systems based approach for making investment decisions. See the O&M Annex for the list of designated O&M Systems and codes.

b. MSCs will identify all systems within their respective regions of the US and develop budget priorities that are consistent with investing in one or more of the following aspects of the system: in the highest risk portions of the system; that will result in the most improvement in performance; that contribute to increased navigation reliability and safety; that contribute to increased flood damages prevented; that contribute to addressing significant regional or national ecological problems. A system will generally be identified as a watershed, and may include multiple individual projects and components. Some large watersheds could be comprised of more than one system (e.g. the Mississippi River watershed has the Upper Mississippi River system, the MR&T system, and tributaries as separate systems). Analytical perspectives should be developed to help determine the mix in FY10 of investments in maintenance, operations improvements, reallocation, major rehabilitation, new construction, planning, and design that will maximize system efficiency, safety, reliability, and sustainability over time.

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

II-2.7. **Watershed Studies**. Watershed studies are multi-objective/multipurpose and encompass a relatively large geographic area. As a minimum, the study area must encompass the region of an 8 digit HUC. Following the reconnaissance study, a study may proceed as a watershed assessment using 75-25 cost-sharing (leading to a watershed management plan) in accordance with Section 729 or as a

feasibility study accomplished in a watershed context in accordance with the standard feasibility study process and 50-50 cost-sharing when implementation of a Corps project is anticipated.

The key attributes of a watershed assessment, leading to a watershed management plan are as follows.

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

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

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

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

II-2.8. **Budget Screening Definitions.**

a. **New Start Definition**.

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

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

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

II-2.9. **Increments.** The following paragraphs apply to Investigation, Construction and comparable items in MR&T Account. For information about the increments to use for Inspection of Completed projects and Everglades Operations and Maintenance refer to the Definitions/Glossary section of the Main EC and to Annex C.

a. The following increments are primarily process/schedule driven. Only the first Investigation increment has a funding constraint. The increments are not funding levels. The first funding line for any continuing study/project/separable element will probably fit the criteria for either the first or the second

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

b. **Definition**

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

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

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

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

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

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

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

(5) **Increments 5-8**: Not used.

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

d. **Construction Increments**. All contracts will be fully funded if the estimated contract total (total of both federal and non-federal shares) is $20M or less. For all contracts that are proposed for full funding, the total estimated amount for E&D and S&A will be included with the contract. Each contract included in any increment must be shown separately to allow individual funding decisions based on the performance metrics and must be shown in priority order by District and MSC Rank. This section includes specifically authorized projects, MR&T construction, dam safety projects, deficiency corrections projects and dam safety, seepage, static instability studies.

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

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

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

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

(5) **Increments 5-6**: Not used.

(6) **Increment 7**: This increment will identify ten projects which have ecosystem restoration outputs but will be budgeted in Operations and Maintenance with costs assigned to other business lines or as joint project costs. Only the ecosystem restoration portions of Assateague, Lower Cape May and Houston-Galveston are included in this category.

(NAD - Assateague, Poplar Island, Lower Cape May; NWD - Columbia River Fish Mitigation, Chief Joseph Gas Abatement, Howard Hanson Dam Ecosystem Restoration, Willamette Temperature Control, Missouri River Fish and Wildlife Recovery, Lower Snake River Fish and Wildlife Comprehensive Plan, WA; SWD – Houston-Galveston Navigation Channels).

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

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

II-2.10. **Ecosystem Ranking Criteria.** The ranking criteria developed evaluate studies and projects against the parameters of readiness, timeliness, cost effectiveness, and performance. Seven performance components provide an indication of the significance of the resources being restored and will have a substantial bearing on how projects are ranked. The seven performance components and maximum scores are as follows:

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

National Significance is defined as studies and projects receiving the top scores in Scarcity (25 points), Connectivity (25 points) and Special Status Species (10 points) and at least the second score (5 points) for Plan Recognition. Regional Significance is defined as studies and projects receiving at least the second highest score in each of these four criteria. Information about the physical scale of the restoration, cost, phase, relation to other purposes for multipurpose projects, watershed status for studies, and status of cost-share agreements will also be used to arrive at a balanced budget recommendation that insures continued positive contributions to the Nation's resources. The criteria apply to individual line item-funded studies, projects, and separable elements.

II-2.11. **Separable Elements.** Separable elements that upon completion provide ecosystem restoration benefits even if the remainder of the project is not completed should have unique P-2 project names and unique P-2 project numbers. Separable elements are to be entered as separate line items in the budget request. Existing project names should be reviewed to ensure that the items identified as projects are in fact separable elements. In rare instances separating a large project not previously divided into separable elements may be warranted to more accurately report performance. If a separable element will be constructed in phases or stages, phase and stage designations should not be part of the project name. Instead the phase/stage indicator should be included in the project description column and the budget item justification column should be used to indicate status such as initiate stage 1 or complete stage 2 as appropriate.

II-2.12. **Data Requirements.**

a**.** The data elements to be included in P-2 or derived from data in P-2 are described in Table II-2-3 and an example of the excel sheet that we will use to analyze the data provided is shown in Illustration II-2-1. A limited number of items will be required for the "Studies, Surveys and Inspection of Completed Works- Ecosystem Restoration" work category code in the Operations and Maintenance account. The CCS is 640 and the PWI is 081816. The operations and maintenance requirements for Everglades projects should follow the guidance in Annex C.

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

c. CEQ Annual Wetlands Report. The last five data elements are required to provide data for the Council on Environmental Quality's annual wetlands report. This information will help to determine the amount of the FY10 budget that will contribute to the five actions: establishment, re-establishment, rehabilitation, enhancement, and protection. Definitions of these five terms are included in Table II-2-5.

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

II-2.13. **Projects Previously Budgeted in Ecosystem Restoration, Construction Account**.

a. Ten projects in part or in whole previously budgeted in the Construction Account, Ecosystem Restoration Business Line have been moved to the Operations and Maintenance Account. However, since specific ecosystem restoration information is required, the projects and ecosystem restoration features must also be entered following the rules for ecosystem restoration construction. Use the O&M appropriation code and CCS, retain the existing P-2 project or program number, the ENR Business line code and an increment code of 7. Projects may use increments codes 7.1- 7.5 as defined for the Operations increments 1-5 in the Definitions/Glossary section in the main EC. Columbia River Fish Mitigation and Missouri River Fish and Wildlife Recovery should use 7.1-7.3 as discussed in paragraph c. below. As the budget development progresses the appropriate funding amount will be distributed to the appropriate business line or distributed as joint costs to the various operating projects. The projects included in this category are:

NAD	Assateague (ecosystem restoration portion)
NAD	Poplar Island
NAD	Lower Cape May (ecosystem restoration portion)
NWD	Columbia River Fish Mitigation
NWD	Chief Joseph Gas Abatement
NWD	Howard Hanson Dam Ecosystem Restoration
NWD	Willamette Temperature Control
NWD	Missouri River Fish and Wildlife Recovery
NWD	Lower Snake River Fish and Wildlife Comprehensive Plan, WA
SWD	Houston-Galveston Navigation Channels (ecosystem restoration portion)

b. These projects will not be split in P-2/OFA and allocated to the operating project and business lines (as was done in FY07&08). This allows the activities at a project to be entered and managed as a single budget activity. The total budgeted amount can later be "displayed" across specific Business Lines

in accordance with the statutory O&M joint cost allocation formula. This “display” of joint costs will not result in a single budget activity being split into multiple activities across multiple business lines. However, this “display” of programmed costs allows the Corps to identify the costs allocated to other business lines.

c. Columbia River Fish Mitigation and Missouri River Fish and Wildlife Recovery consist of multiple projects. **The individual components of these projects will be shown as separate line items in the budget submission to headquarters.** The programs will have at least three increments in O&M.

(1) Increment 7.1 – Activities required to maintain the necessary minimum progress toward compliance with the BiOp to avoid jeopardy in FY10.

(2) Increment 7.2 - Activities required to maintain progress toward compliance with the BiOp in accordance with the established schedule.

(3) Increment 7.3 – Capability level to advance progress on the highest priority activities.

TABLE II-2-3
Ecosystem Restoration Study and Project Information

The data provided in this table will allow for ranking the ecosystem restoration projects to develop a budget consisting of cost effective projects that efficiently provide significant ecosystem restoration benefits. The data in this table will be pulled from P-2 at the MSC and HQ levels. If the item required for this table is not applicable, do not leave it blank (the exception is the ranking columns for higher organizational levels). Enter NA so that it is clear the absence of information is not an oversight. This information will be available for incorporation into a spreadsheet similar to the one in Illustration II-2-1. Every column must have an entry. For columns where data is not required as indicated by the code at the bottom of the spreadsheet in Illustration II-2-1, if the data is entered directly into P-2 then the cells should auto fill with NA. Otherwise enter NA as necessary. Additionally, for a P-2 Project Number with more that one budget item, many fields will auto fill for subsequent budget items.

If the spreadsheet is used and items are entered in the order listed below and the P-2 data entry rules are followed, it may be uploaded directly into P-2. Dates should be entered in **YYYY-MM-DD format (2008-05 02),** fiscal year should be entered as 4 digits (2006), all dollar and other numeric entries should be in thousands unless the data field definition specifically instructs otherwise.

Items funded in the MR&T account should follow the rules for the I, C, and O&M accounts as appropriate. The first 27 items are required for all budget items in all accounts.

Every contract in the Construction account including comparable MR&T items is a separate line item. For continuing contracts there may be multiple entries. New contracts for $20,000,000 or less are to be fully funded.

1. BUSINESS LINE = ENR for Ecosystem Restoration

2. EROC = Two character code for District, such as B1 for Memphis District.

3. MSC = Three letter abbreviation for MSC, such as SAD. This is a display-only field which is auto-populated based on the EROC. Data entry is not required.

4. DISTRICT = Three letter abbreviation for District, such as NWK. This is a display-only field which is auto-populated based on the EROC. Data entry is not required.

5. APPROP ABBREV = An abbreviation for the Appropriation Account. The abbreviations are: I (Investigations), C (Construction), OM (O&M), MRT-I (MR&T Investigations), MRT-C (MR&T Construction), MRT-OM (MR&T O&M) , and FUSRAP. This is a display-only field which is auto-populated based on the CW TYPE OF FUNDS. Data entry is not required.

6. CW TYPE OF FUNDS = CW Account and Category/Class/Subclass (CCS) code – This is an 11 character numeric code that combines the numeric appropriation account codes with the numeric CCS codes. Appropriation Account codes are Investigation (96 3121), Construction (96 3122), Operations and Maintenance (96 3123), and Mississippi River and Tributaries (96 3112). These are followed by a space and then the three digit CCS code which can be found in the Definitions/Glossary section in the Main EC.

7. PROGRAM CODE = The Program Code identifies the AMSCO/CWIS/PWI associated with a P-2 project. A Program Code should be assigned to every CW P-2 project for which funds are requested. This is especially important in the case where multiple P-2 projects have been created which are all

associated with a single CWIS in the Corps budget submission to OMB and Congress. A P-2 Program Code will need to be entered for each of those P-2 projects so that they can be linked together for budget submission purposes. Separable elements are an example of this situation. Normally, the AMSCO number will be used as the Program Code value. The Program Code is a project level code which is entered in Oracle Projects (OP). By default, the Program Budget Submission (PBS) portion of OFA will auto-populate the field (if it's blank) with the Program Code classification that is assigned to the P-2 Project in OP. Users have the ability to override that field with a valid Program Code if there's not one assigned in OP. It is strongly recommended, though, that users assign the code in OP so it can be utilized for other OFA reporting purposes (2101's, CWAS, etc).

8. P-2 PROJECT NUMBER = A six digit numeric code that identifies a project in P-2. Separable elements should have unique codes. Usually individual contracts and phases and stages of projects are not separable elements. (see paragraph II-2.11 for additional information regarding separable elements.)

9. BUDGET ITEM ID = A code to uniquely identify multiple entries within the same EROC, P-2 Project, CW Type of Funds (Approp/CCS), Business Line, Increment, and Phase. System generated, no entry required.

10. FUNDING INCREMENT = Enter the appropriate number in accordance with the guidance in Paragraph II-2.9. Enter a “1” if the budget item meets the requirements for inclusion in the Initial increment as defined. Enter a “2” if the budgetable item should be considered for the second Increment, etc. Every project may not have a budget item in the first two Increments. A project may have multiple budget items in an increment. For (O&M) Inspection of Completed Environmental Works and Everglades related O&M assign an increment number 1- 5 in accordance with the guidance in the Definitions/Glossary section in the main EC (or Annex C).

11. DIST RANK = The budget item’s rank in the district’s request.

12. MSC RANK = The budget item’s rank in the MSC request.

13. HQ RANK = The budget item’s rank in the HQ request. HQ will complete this item. It is not available for District or MSC entry.

14. ARMY RANK = The budget item’s rank in the Army request. HQ will complete this item. It is not available for District or MSC entry.

15. PRESIDENT BUDGET RANK = The budget item’s rank in the President’s budget. HQ will complete this item. It is not available for District or MSC entry.

16. PHASE = A letter code will be used to indicate phase. The codes that are applicable to ecosystem restoration studies and projects are: R = Reconnaissance; F = Feasibility; FW = Feasibility Study in a Watershed Context; WA = Watershed Assessment, P = Preconstruction Engineering and Design Phase; C = Construction; O = Operations and would apply to Inspections of Completed Projects. For projects moved from the Ecosystem Business line, C account to another business line O&M account in FY 2007 one of the following should apply: DS = Federal sand + section 111; BO = Biological Opinion (RPA); or BD = Beneficial use of dredged material. Joint activities on multi-purpose hydropower project (Cat-Class 300) will have a phase code of OJ or MJ as appropriate. The post-construction monitoring phase will have a phase code of CM. This is for post-construction environmental monitoring for ecosystem restoration and environmental mitigation and post-construction monitoring associated with other activities such as beach nourishment which occurs after construction is physically complete but prior to fiscal

completion. This is not monitoring during construction to ensure construction is correct or ecosystem avoidance/mitigation is occurring as planned. It is also not Inspection of Completed Works.

17. PHASE STATUS = Status of the Phase listed in column 15 will be indicated with a letter code. NP = New Phase; CN=Continuing; LY= Last year of phase. Only use LY if FY10 is the last year for which funding will be requested for the phase (not for a contract). For Reconnaissance and Construction initiation, a new start should be coded as a New Phase in this column. If a study or a project is completing one phase and starting a new one in the PY (e.g. finish Feasibility and start PED), each should be a separate entry (one LY and one NP). If there are multiple funding lines for one phase of a project (especially construction) this code may vary. Perhaps the first entry would be NP and the second one CN and the last one if funded would complete the phase and be LY.

18. PHASE COMPL = Required for all items in all accounts. The fiscal year the phase for which funds are being requested is scheduled to complete. This is a numeric. The Reconnaissance phase ends with execution of a Feasibility Cost Sharing Agreement, or a report recommending no Federal action. For FY10 budget development, use the date of the Division Engineer's Transmittal of the report to HQ as the end of the Feasibility phase. The PED phase ends with completion of first set of plans and specifications and execution of the Project Cooperation Agreement/Project Partnership Agreement (PCA/PPA). Construction completion is defined as physical completion. The construction phase completion date is the date that will be used for various ecosystem restoration reports including development of the Five Year Development Plan performance estimates. **The date entered for each of multiple entries for a project/separable element should be determined based on the assumption that no subsequent items for the project/separable element will be funded.** For the post-construction monitoring phase the completion date should be within a year of fiscal project completion. For items in the O&M account, enter the PY unless the requested funds are scheduled to be carried over.

19. PROGRAM NAME = Name associated with the Program Code which is entered in Oracle Projects. This will be auto filled. In OFA it is a display-only data field.

20. P-2 PROJECT NAME = Name of the P-2 project. The project name is entered in Oracle Projects. In OFA it is a display-only data field.

21. SYSTEM CODE = Required for entries in the O&M account and comparable MR&T account. This is a three letter code. See the O&M Annex for the list of designated O&M Systems and codes.

22. BASIN CODE = Required for all items in all accounts. The USGS Hydrologic Unit Codes (HUC) will be used to identify watersheds. The four-digit code for the appropriate sub-region as defined by USGS will be entered for every budget item. These codes may be found at **http://water.usgs.gov/GIS/huc_name.html**. Some programmatic elements may cover more than one sub-region. If there are separable elements enter the code that is appropriate for the separable element. If there are no separable elements enter the code applicable to most of the project or area where funding will be applied.

23. STATE = Enter the two letter abbreviation for the primary state in which the study, project, or separable element is located.

24. CONTRACT TYPE = Required for all items in Construction, projects listed in paragraph II-2.13, and any contract with a remaining amount over $20,000,000 in any phase. Enter one of the following: CC for continuing contract; CF for fully funded contract; CB for base contract with options; or CI for incrementally

funded contract. Enter NA if this line item is not a contract or if in I or O and remaining amount less than or equal to $20,000,000.

25. CUR BUD FED = This is a display-only field which is auto-populated from the project's current schedule in Primavera / Oracle Projects. It displays the PY 'At Completion Cost' Federal (Corps) amount for the budget item.

26. CUR INF ADJ BUD - FED = This is a display-only field which is auto-populated from the project's current schedule in Primavera / Oracle Projects. It displays the PY 'At Completion Cost' Federal (Corps) amount for the budget item, adjusted by the inflation rates contained in this EC.

27. BUD REQ - FED = The amount requested in FY10 for the work proposed to be accomplished with this budget item. This may or may not be the total FY10 budget request for the study, project, or O&M item. The sum of all entries for this P-2 Project Number will be its Capability. Additional budget items are not additive and each must provide measurable contributions to performance. Each construction contract of $20 Million of less must be a separate budget item.

28. AMOUNT NEXT CONTRACT = Required for all items in Construction and projects listed in paragraph II-2.13. Provide the total amount of the next new contract. Enter NA if this line item is the last contract for project/separable element.

29. CONTINUING CONTRACT EARNINGS = Required for all continuing contracts in Construction and projects listed in paragraph II-2.13 including both "true" and "special" continuing contracts. Provide the PY earnings for all continuing contracts continuing from the previous year. This number will change as additional items are included in the budget request for an individual continuing contract. Enter NA if this line item is not a Continuing Contract.

30. CONTINUING CONTRACT VALUE **=** Required for all continuing contracts in Construction and projects listed in paragraph II-2.13 including both "true" and "special" continuing contracts. Enter the total value of the contract in thousands.

31. CONTINUING CONTRACT AMOUNT APPLIED THROUGH PY-1 = Required for all continuing contracts in Construction and projects listed in paragraph II-2.13 including both "true" and "special" continuing contracts. Enter the amount in thousands. This should be zero for a continuing contract initiating in FY10. Enter NA if this line item is not a Continuing Contract.

32. LAST YEAR BUDGETED = Required for items in the Investigation and Construction accounts and projects listed in paragraph II-2.13. Enter the most recent Fiscal Year this study or project was included in the President's Budget (any phase).

33. LAST AMOUNT BUDGETED – Linked to 32 above.

34. LAST YEAR APPROPRIATED = Required for items in the Investigation and Construction accounts and projects listed in paragraph II-2.13. Enter the most recent Fiscal Year this study or project received an appropriation (any phase).

35. LAST AMOUNT APPROPRIATED = Enter the amount of funds (conference report amount) contained in the appropriation indicated in item 34 above for this study or project

36. TOTAL PROJECT COST = The Total Project Cost (TPC) includes the Federal and non-Federal cost of PED and Construction. The TPC also includes cost shared monitoring and adaptive management

costs. During the Reconnaissance and Feasibility Phases use the estimate being developed for use in the appropriate report (needed for order of magnitude evaluations). Subsequently, the figure is to include all Federal and non-Federal costs for PED and Construction. The cost should be consistent with the fully funded cost in the J sheet.

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

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

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

40. PED DATE = Required only for items in the Investigation and Construction accounts and projects listed in paragraph II-2.13. The actual or scheduled date of the PED Agreement. Enter the date - **YYYY-MM-DD - e.g. 2007-09-30.** If the budget request is to accelerate phase, this date should change from the initial entry. For a new Reconnaissance NA may be appropriate.

41. PCA/PPA DATE = Required only for items in the Investigation and Construction accounts and projects listed in paragraph II-2.13. The actual or scheduled date of the PCA/PPA. Enter the date - **YYYY-MM-DD - e.g. 2010-11-01.** If the budget request is to accelerate phase, this date should change from the initial entry. For Reconnaissance and new Feasibility studies NA may be appropriate.

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

43. MONITORING/ADAPTIVE MANAGEMENT = Required for PED and Construction phases and projects listed in paragraph II-2.13 and is to be based on either the Chief's Report or project authorization. Enter the number of years subsequent to physical completion of the project. Enter 0 if no monitoring or adaptive management is recommended or authorized and NA for other phases.

44. WATERSHED STUDY = Required only for Investigations, excluding PED. The study may produce a watershed or regional needs analysis (watershed assessment in accordance with Section 729) that identifies opportunities and impediments; a range of alternatives; or a regional or basin-wide strategy that identifies implementable actions for the future for some or all of the stakeholders within the watershed or region; or result in a feasibility report for authorization. A watershed assessment in accordance with Section 729 will be given the phase code WA. (A watershed study that does not meet the criteria for Section 729 will be a feasibility study accomplished in a watershed context and will be coded FW.) The watershed assessment is independent of ranking criteria for the primary business line. Instead it is intended to be a unique evaluation tool that crosses business lines. The following criteria will be used:

a. HUC –the study area is an 8-digit complete watershed.

b. The study is multi-objective/multi-purpose.

c. The result is expected to be a watershed management plan; implementation is not substantially dependent on Congressional authorization.

If the study meets all three criteria above, column 44 is YES and the phase code in column 16 should be WA. If a. and b. are YES, but c is NO; the answer for column 44 is NO and the phase code in column 16 is FW. If the answer to either a. or b. is NO or if the answer to two or more of the three criteria is NO then the answer for column 44 is NO and the phase code is F.

45. WATERSHED DOC = If column 44 is YES; provide narrative documentation for each of the three required points. (400 characters) For a. enter the name and number of the watershed. For b. list some of the objectives/purposes. For c. briefly describe the expected contents/uses of the management plan. If the response for column 44 was NO then enter NA.

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

47. PROJECT DESCRIPTION = Entry is required for all phases of the study/project. Entry needs to clearly and succinctly describe the project features and the intended outputs. Entries will be *125* words (625 characters) or less in total. Include information on type of project, list ecosystem features, and other pertinent information. Briefly describe phase or stage if a multi-stage implementation. If using dredged material, mention the navigation project source. Note the habitat type(s) using the codes (don't spell them out use the abbreviations) in Illustration II-2-2. Complete sentences are not required. The project description and work to be performed should be consistent with the J-sheets.

48. PROJECT DESCRIPTION (CONTD) = Because P-2 has a field limit of about 489 characters, if the project description (47. above) requires additional space use this field. (150 characters) other wise enter NA.

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

a. Legal requirements [specify court orders or lawsuits, reasonable and prudent alternatives to avoid jeopardy, settlement agreements, etc.].

b. If mitigation included type of habitat being mitigated and number of acres.

c. For Inspection of Completed Works, list the projects to be inspected.

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

d. Unresolved policy issues

e. Other significant descriptors.

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

50. TOTAL ECOSYSTEM PROJECT COST = Required for PED and Construction phases and projects listed in paragraph II-2.13. This is the figure that will be used when asked the cost of the ecosystem restoration outputs. **This entry is for the cost of ecosystem restoration elements only**. Be sure to exclude the costs of recreation or environmental education features in this column. For a multipurpose project, this column would include the separable and joint costs of the ecosystem restoration features only. For a single purpose ecosystem restoration project without recreation features the entries in columns 36 and 50 should be identical. Cost in $1000s.

51. ACRES = Required for PED and Construction phases and projects listed in paragraph II-2.13. **The area used for the Cost Effectiveness/Incremental Cost Analysis (CE/ICA) analyses is the quantity to enter.** This does not change the need for a quality component in the CE/ICA analyses. For budgeting purposes the quality of the aquatic habitat restored should be reflected in the subsequent significance criteria and in the project description and narrative justification. The actual number of acres should be entered in **whole numbers**. If stream miles were used as the based for the benefits analyzed in CE/ICA will be converted to acres. See table II-2.4 for the appropriate formulas. If a project includes a combination of actions the acres may be added but avoid double counting. For example if in association with a dam removal one mile of river bank or channel bottom grading up stream of the dam location was undertaken the actual acres of that work (either 1 or 5 depending on the stream width) would be added to the miles above that stretch opened to spawning and associated riparian acres (not linear along the stream and counted otherwise) could also be added.

52. COST PER ACRE RESTORED ($HUNDREDS) = Required for PED and Construction phases and projects listed in paragraph II-2.13. The total ecosystem restoration cost in column 50 divided by the number of acres in column 51 expressed in **$100s per acre.** This will be a calculated field and entered by the system.

Significance. Items 53 – 65 are required for all items funded in the Investigations and Construction accounts and projects listed in paragraph II-2.13. Blank entries will equal zero. The scores for items 53, 55, 57, 59, 61, 63, and 65 (for projects in PED or Construction) will be totaled and serve as an indication of the significance of the proposed restoration. Only one option may be selected in each of these items. For example if the proposed project contributes to a national plan (10 points) as well as a state plan (2) points only 10 points may be entered. The first score is the maximum points available for each item. The basis for the ranking assigned for Habitat Scarcity, Connectivity, Special Status Species, Hydrologic Character, Geomorphic Condition, and Plan Recognition must be documented. The term “regional” is defined as involving two or more states; a state and comparable entity in Canada or Mexico; a state and a Tribe; two Tribes, an area of a size comparable to the previous items, or an area covered by an activity that has significant Federal legal and multi-agency support even though entirely within one state such as a Joint Venture area identified under the North American Waterfowl Management Plan, rather than a smaller geographic area. Justification for the scores should relate to the project outputs in the project description or narrative justification.

53. HABITAT SCARCITY AND STATUS = The scarcity of the habitat to be restored. This criterion is based on trend information and relative abundance of the habitat. All special aquatic sites as defined in the 404(b)(1) guidelines are nationally important and relatively scarce. This criterion is designed to identify habitats with exceptional regional or national scarcity. Restoration of a scarce habitat that was always scarce in the project area or one at the limits of its range, and is relatively stable at near historic abundance would rate zero. Scoring is as follows:

25 = Nationally scarce habitat and becoming scarcer (declining trend) as demonstrated by a Federal, regional, or state/Tribal report, or general scientific agreement as documented by peer-

reviewed professional publications/societies. The report must refer to the specific habitat type and preferably would also mention the region in which the project is located. This score may not be based on broad classifications of aquatic habitats such as wetlands that are recognized under programs such as the National Wetlands Inventory as declining

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

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

5 = Other declining or scarce aquatic habitats.

0 = A habitat type that is stable at natural levels or improving beyond natural levels.

54. Document the basis for the score in column 53 in 200 characters. Examples: 90% of (type of habitat) lost in x (size of or name of region) area since yyyy (year) as documented in... Examples of reports might be North American Waterfowl Mgt Plan documents and NOAA's Essential Fish Habitat documents. Additional potential sources may be found in "Significance in Environmental Project Planning: Resource Document" IWR Report 96-R-7 at *http://www.iwr.usace.army.mil/inside/products/pub/iwrreports/96r07.pdf*. If species are cited as the justification the score will be changed to zero. If no specific citation is provided the score will be changed to zero.

55. CONNECTIVITY = This criterion addresses the extent to which a project facilitates the movement of native species by contributing to the connection of other important habitat pockets within the ecosystem, region, watershed or migration corridor, or adds a critical component to an ecosystem or contributes to increased biodiversity. Scoring is as follows:

25 = Project makes a critical direct physical connection between existing habitat areas within a corridor or larger landscape reducing population isolation, expanding home ranges, or providing access to areas supporting life requisites as recognized by or demonstrated by community or species models. An example would be restoring the connection between two pockets of what was once a larger wetland, or two patches of bottomland hardwood forest separated by drained agricultural land, or removal of a dam to open up additional habitat. For specific species, action provides critical life requisites (sites or habitats providing foraging, breeding or cover) that complete or expand the functionality of the system contributing to the stability of the species or population.

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

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

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

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

56. Document the basis for the score in column 55 in 200 characters; such as: connect x National and y state wildlife areas, connect 5 tracts totaling x acres. Include a list of the primary species used to justify score. Failure to include documentation of the areas and species will lower the score five points.

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

10 = Project provides habitat for life requisites that complete or add to existing life requisites within the project's area of influence or footprint for Federally listed or candidate threatened or endangered species as documented in Fish and Wildlife Coordination Act/ National Marine Fisheries Service (FWCA/NMFS); correspondence and/or Biological Assessment/Opinion as appropriate. In the reconnaissance or early Feasibility phase documentation may be an e-mail or MFR of a conversation, documentation of the results of a scoping meeting.

5 = Project provides habitat for life requisites that complete or add to existing life requisites within the project's area of influence or footprint for species covered by international treaty, such as International Migratory Birds, that are of special concern or have special significance (typically would not include common or abundant species).

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

0 = None.

58. Document the basis for the score in column 57 in 200 characters by listing species and life requisite met (e.g. e.g. – bald eagles/nesting habitat). Cite discussion with resource agencies responsible for managing the special status species in the project area. The discussion should be documented in an mfr or email. Cite a federal recovery plan if applicable. The species must have a demonstrated presence in the area or a strongly probability of a potential presence. Failure to include the species and life requisite provided will lower the score five points but to no less than zero.

Regarding Hydrologic Character and Geomorphic Condition (59-62 below) since the goal of Corps ecosystem restoration projects is "to restore degraded ecosystem structure, function, and dynamic

processes to a less degraded, more natural condition"; the project has in all probability been formulated with an implicit if not explicit target of achieving a more "natural" condition. Reference sites, historic stream gage data, the physical parameters required to restore and sustain the desired native habitat may be a means to define "natural" for each project.

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

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

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

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

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

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

60. Document the basis for the score in column 58 in 300 characters discussing which aspects restored and basis for the target condition. Reference hydrologic attributes. Water quality is not an appropriation justification for a score. Be sure to link proposed actions to hydrologic outcomes. Include quantification of the change if possible, especially for projects in PED and Construction. Tie benefits to key thresholds or a reference system

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

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

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

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

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

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

62. Document the basis for the score in column 61 in 300 characters discussing which aspects restored and basis for the target condition. Link project actions to pertinent geomorphic outcomes. Reference key attributes and include quantification of the change especially for PED and Construction. Tie benefits to key thresholds or a reference system.

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

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

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

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

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

64. Document the basis for the score in 63 in 200 characters. Include the name and date of plan used as the basis of the score.

65. SELF-SUSTAINING = This requirement applies to only the PED and Construction phases. Enter NA for Reconnaissance and Feasibility phases. The ideal goal of most restoration is a self-sustaining ecosystem consisting of natural processes. The cost of the average annual O&M per acre (using the number of acres in column40) will be used as an indicator of the level of human intervention needed to maintain the restoration outcome. The most recent cost estimates or the actual costs of O&M (if greater than the latest estimate) will be used in this calculation. Scoring is as follows:

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

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

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

66. TOTAL SCORE = The sum of the scores entered in columns 53, 55, 57, 59, 61, 63, and 65. P-2 will auto fill. Maximum if 130.

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

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

69. NUMBER OF INSPECTIONS = This item is to provide for funds to inspect completed ecosystem restoration projects and ecosystem restoration features of multi-purpose projects. These funds will be in the O&M account. The work category code is 60422. See subannex C-4 “Work Category Codes and Definitions – O&M Operations Accounts” in Annex C, for the full definition of “Inspections of Completed Work, Ecosystem Restoration. This was a new funding category for FY 2007. Districts will enter amounts in P-2 in the same manner used for Inspection of Completed Works for Flood Damage Reduction. Enter the number of ecosystem restoration projects or features that will be inspected with the amount requested. This category is not for inspection of features completed as mitigation. The CCS is 640. The P-2 Program Number is 081816.

70. BUDGET ITEM JUSTIFICATION. In 75 words (375 characters) or less state proposed use of the line item amount (be as specific as possible) and what this amount accomplishes (what are we getting for this amount of $). Key point is to be able to distinguish from other entries for the same project or other projects. For example: initiate or complete a study, contract, or project; reduce the study time x months; or contract work more efficiently, or link to other work in watershed more efficiently. This is where the phase or stage of a project or separable element should be mentioned; such as initiate stage 2 of 3 of phase 3 of 3.

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

72-76. These five columns are required for PED and Construction and projects listed in paragraph II-2.13. This data is required so that we will have a basis for stating how our budget relates to the President's wetland goals. The Council on Environmental Quality definitions of the terms in the column headings will be used. These definitions are found in Table II-2-4. The acres should be wetland acres as identified from the habitat types (Illustration II-2-2) entered in the project description. A project or separable element may report acres in more than one of these columns. Acres should be entered in whole numbers.

72. Acres Established.

73. Acres Restored.

74. Acres Rehabilitated

75. Acres Enhanced

76. Acres Protected

Table II-2-4
Formulas for Conversion of Stream Miles to Acres

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

Table II-2-5
Council on Environmental Quality Wetlands Accomplishments Definitions

Accomplishment	**Results**	**Definition**
Restore or create	Results in a gain of wetland acres	*Creation* of wetlands that did not previously exist on an upland or deepwater site. These actions are referred to as **"establishment"** by the White House Wetlands Working Group (WHWWG). ***Restoration*** of a former wetland to its natural/historic function and resulting value. Typically, such a former wetland had been drained for some purpose. These actions are known as "re-establishment" by the WHWWG.
Improve	Results in a gain of wetland functions or quality, rather than additional acreage	Repair of the natural/historic functions and associated values of a degraded wetland. The WHWWG refers to these actions as **"*rehabilitation*"** of wetlands. Rehabilitation results in a gain in wetland quality. Heightening, intensification, or improvement of one or more selected functions and associated values. The WHWWG called these types of actions **"*enhancement*."** Enhancement is undertaken for a purpose such as water quality improvement, floodwater retention, or wildlife habitat. Enhancement results in the gain of selected wetland functions and associated values but may also lead to a decline in other wetland functions and values.
Protect	Preserves acreage but does not result in an addition of acres.	Acquisition of land or easement of at least 30 years duration.

ILLUSTRATION II-2-1
Sample Spread Sheet
Ecosystem Ranking Criteria and Additional Data

Revised spreadsheet for FY10

May 08 ENR
spreadsheet.xls

ILLUSTRATION II-2-2
Habitat Types and Codes to be Used for Ecosystem Restoration

May 08 Habitat.xls

APPENDIX II-3

Environment-Stewardship

II-3.1. **Introduction.** The Corps is responsible for the management of about 500 existing water resources projects located in 43 states. Each project's construction and operation is authorized under unique authorities for single or multiple-purposes such as navigation, flood control, hydropower, fish and wildlife, recreation and water supply. Included in those authorized projects and entrusted to Corps stewardship are streams, rivers, lakes, and their adjacent lands - totaling nearly 12 million acres and nearly 56,000 shoreline miles. In operating and maintaining its multi-purpose projects, the Corps integrates the management of the existing diverse natural resources (such as fish, wildlife, forests, grasslands, wetlands, soil, air, water) and cultural resources, with the provision of recreation opportunities. Guidance for accomplishing stewardship activities may be found in ER 1130-2-540. As a matter of law and good environmental practice, the Corps executes stewardship activities on project lands and waters to sustain healthy natural resources and cultural resources that occur on this federal estate and takes action to minimize adverse environmental impacts. The Environment-Stewardship vision is to provide healthy project lands and waters for future generations.

II-3.2. **Purpose.** The Corps Environment-Stewardship (E-S) mission is to manage, conserve and/or protect the natural and cultural resources at Corps operating water resources projects, consistent with project authorities and ecosystem sustainability approaches; consistent with the USACE Environmental Operating Principles; to meet environmental standards; and to serve the needs of present and future generations. Environment-Stewardship provides management of natural and cultural resources to achieve healthy, sustainable conditions, and fosters healthy lands and waters by balancing public uses and needs.

II-3.3. **Goals, Objectives and Performance Measures.**

a. Environment-Stewardship seeks to fulfill the Civil Works (CW) goal to ensure that projects perform to meet authorized purposes and evolving conditions. Table II-3-1 displays the Environmental Stewardship Objectives and Performance Measures described in the CW Strategic Plan for FY 2004 – FY 2009, dated March 2004. Preparation of the FY10 budget request requires the recognition of a constrained budget environment and the ongoing evolution of better budget linked performance measures. Table II-3-2 displays the FY10 Stewardship objectives and performance measures which support and/or supplement the CW Strategic objectives (Table II-3-1) and performance measures, to reflect the near term realities of a constrained FY10 budget environment.

TABLE II-3-1 Civil Works Strategic Plan Objectives and Performance Measures*	
Environmental Stewardship Objectives	Performance Measure
Ensure healthy and sustainable lands and waters associated with natural resources on Corps lands held in public trust, to support multiple purposes.	Percent of acres with completed natural resources inventories.
Protect, preserve, and restore significant ecological resources in accordance with Master Plans.	Percent of projects requiring Master Plans in accord with current regulations.
Ensure that the operation of all Civil Works facilities and management of associated lands complies with the environmental requirements of all relevant Federal, State, and local laws and regulations.	Percent of all significant findings corrected annually. Percent of all identified major findings corrected annually.
Meet the mitigation requirements of authorizing legislation or applicable Corps decision document.	Percent of Corps administered mitigation lands (acres) that meet the requirements in the authorizing legislation or relevant Corps of Engineers decision document Percent of completed projects that have successfully met mitigation goals.

***** From the FY 04-09 Civil Works Strategic Plan, dated March 2004. **See Table II-3-2 for the adjusted FY10 budget-linked objectives and performance measures to be used in development of the FY10 E-S budget.**

b. Our ability to accomplish the Environment-Stewardship objectives depends heavily on certain key factors that are the focus of the FY10 budget-linked objectives and performance measure outputs as presented in Table II-3-2. The key factors associated with accomplishing E-S objectives include that basic information must be available about the natural resources that exist on Corps operating projects. Further, there must be some evaluation of the condition and significance of those resources, at the project and within the watershed ecosystem -- to manage them effectively and efficiently, and to comply with the law and other resource protection mandates, such as legislatively authorized mitigation, National Environmental Policy Act and Endangered Species Act mandates. Additionally, significant cultural resources that occur on project lands must be managed in accord with several federal protection mandates. Also, project Master Plans, which guide the manager in making informed and wise decisions on project land use proposals, must be up-to-date and in accord with regulation (ER and EP) 1130-2-550. (This regulation and guidance requires that Master Plans include a land classification that designates environmentally sensitive areas and include meaningful natural resources management objectives. The Master Plan promotes the identification, protection, conservation and sustainability of natural resources.) To build a highly effective and efficient budget, performance measures are utilized to attribute priority to that work which contributes to accomplishing the E-S objectives and results.

TABLE II-3-2 FY10 Environment-Stewardship Budget-Linked Objectives and Performance Measures	
Budget-Linked Objectives	Performance Measure
Assure compliance with natural resources environmental mandates and legal requirements	**Mitigation Compliance** - Percent of total Corps administered mitigation acres, or percent of total required pounds/or individuals of mitigation fish released, that meet the requirements in the authorizing legislation or applicable Corps authorization decision documents.
	Endangered Species Protection - Percent of Corps operating projects with federally listed species for which the Corps is meeting Endangered Species Act requirements or responsibilities.
Protect and preserve cultural resources	**Cultural Resources Management** - Percent of Corps operating projects that meet federally mandated cultural resources management responsibilities.
Ensure healthy and sustainable natural resources conditions.	**Healthy and Sustainable Lands and Waters** – Percent of total Corps fee-owned acres that are classified as in healthy and sustainable condition.
	Level One Natural Resources Inventory Completion - Percent of total acres requiring Level One Natural Resources Inventory for which the Level One Natural Resources Inventory is complete.
Balancing public uses of natural resources	**Master Plan Completion -** Percent of total projects requiring Master Plans for which the Master Plans are completed in accord with ER 1130-2-550.

c. Full descriptions of the FY10 Environment-Stewardship budget-linked performance measures are provided in Illustrations II-3-1 to II-3-6.

II-3.4. **Environment-Stewardship Program Development – General Instructions**.

a. The Environment-Stewardship budget will be performance-based. It will be built by the development of incrementally justified budget packages for prudent work, categorized by work category code (See Annex C of this EC, sub-annex C-4 “Work Category Codes and Definitions – O&M Operations Accounts” for current codes) that realistically may be accomplished during the budget year and that provides quantifiable, efficient, and increased outputs toward the current E-S performance measures. Each included budget package will provide quantified outputs toward a single primary performance measure that reflects the primary reason why the budget package is justified and the category of outputs anticipated from the work. So that stand-alone decisions may be made, each proposed budget package

will consider and include all the costs (i.e. of the primary, as well as supporting, activities) that are necessary to accomplish the proposed work and result in performance output.

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

c. **Joint Activities –** Joint Costs. See guidance provided in Sub-Annex C-2, paragraph C-2.3.b.

d**. Environment-Stewardship Budget Evaluation System (E-S BEST) and P-2**.

(1) E-S BEST is a web–based tool developed for field use in calculating Environment-Stewardship performance measure outputs for stewardship O&M activities and budget packages. E-S BEST must be used in developing the FY10 E-S budget. E-S BEST will use data provided by the project to calculate a value for each budget package's performance measure output. Using these values, E-S BEST will facilitate ranking of all E-S budget packages at the District, MSC, and HQ levels. For the FY10 budget development, all budget and performance information entered in E-S BEST for FY 09 can be pre-populated into the FY10 process unless the users choose not to. Most projects should take the advantage of retrieving data from the previous year in E-S BEST and review/update the existing budget packages in E-S BEST instead of creating new ones. Work category codes used in budget packages should also be confirmed to assure work is accurately characterized. See Sub-annex C-4 of this EC for current codes.

(2) The performance measure information must be updated in E-S BEST by **23 May 2008**. These performance data will be extracted from E-S BEST and merged with budget data extracted from P-2 Primavera Project Manager in OFA on a nightly basis. When entering budget information into P-2 Primavera Project Manager, make sure the corresponding BEST_ID's are entered for all budget packages to ensure the proper performance measures can be matched in OFA. For most projects, the preliminary budget information and the matching BEST_ID's can be carried over from previous year's data entry in P-2 or should be taken from the existing E-S BEST database. For projects that start FY10 budget development in E-S BEST first-- you should provide the budget information to your P-2 correspondent for data entry in P-2 before the deadlines set by the district/MSC (must do this to get the BEST_ID if this is a new package for FY10), to allow districts and MSC to review and evaluate their budgets comprehensively, across business lines. For projects that enter the budget directly into P-2 based on FY 09 E-S BEST budget package information--make sure to revise your E-S BEST budget information accordingly. For either option, you must have the matching BEST_ID when entering budget information in P-2. The information needed to provide your P-2 correspondents for data entry is available on the P-2 summary page in E-S BEST. See Illustration II-3-7 of this Appendix for the FY10 Environment-Stewardship Budget Development Work Flow diagram.

(3) For the FY10 budget, performance measure output data from E-S BEST will be loaded to OFA every night once the projects have submitted data input in E-S BEST and the budget items have been created in P-2-OFA. As the budget review continues, additional E-S budget review data and detailed roll-up spreadsheets will be available to the MSC's and may be accessed through the NRM Gateway at http://corpslakes.usace.army.mil/employees/esbest/esbest.html.

(4) To maintain the integrity of the E-S Budget development process, the structure of stewardship increments in E-S BEST is fundamentally the same as the FY 09 process. However, to achieve consistency with the overall O&M program structure and to meet the requirement for entering budget information into P-2, the E-S BEST budget increments should be matched in P-2 according to Table II-3-3. That is, the *E-S BEST Minimal* program increment will be entered in P-2 as increment 1; E-S BEST "*Critical" Sustaining (Within 25%)* increment budget packages (for additional critical/must-do's within 25% MSC 5-year average O&M President's budget) will be entered into P-2 as increment 3*;* E-S BEST *"Critical" Sustaining (Remaining)* increment packages (for remaining critical/must do's) will be entered in P-2 as increment 4; and all *"Non-Critical" Sustaining* increment packages (to sustain performance and to support/meet targets -- these packages will be given a special identifier in E-S BEST) and all *Capability/ enhanced* packages in *E-S BEST* will be entered in P-2 as increment 5. There are no changes on the BEST_ID's. The BEST_ID numbers should still be entered into P-2 as the way they are in E-S BEST.

TABLE II-3-3
Budget Increments Reference Table between E-S BEST and P-2

E-S BEST Increment	P-2 Increment
Minimal - critical, time-sensitive, least-cost activities to meet the minimum legal mandates, environmental requirements, to prevent the loss of significant natural and cultural resources, and to meet minimum project operating and safety requirements of the budget year (within the MSC minimal program dollar limit of 75% of the 5-year average of O&M President's budget by MSC)	**Increment 1** (critical routine *and critical non-routine* activities; within 75% of MSC amount in Sub-Annex C-2,Table C-2.2)
Not applicable in E-S BEST	Increment *2* - ***DO NOT BUILD/ OR USE*** ***Note****: Include both critical routine and critical non-routine work in P-2 Increment 1- up to MSC minimal program limit*
"Critical" Sustaining (Within 25%) – additional critical (routine and non-routine) time-sensitive, least-cost type work that is *above the minimal* and within the amount limited to 25% of the 5-year average of the O&M President's budget by MSC.	**Increment 3** (critical--both routine and non-routine—to sustain expected future benefits of project and support/meet the target level output/service; cost is within 25% of MSC amount in Sub-Annex C-2,Table C-2.2)
"Critical" Sustaining (Remaining) - all remaining critical, time-sensitive, least-cost type work *beyond the minimal* and *"critical" sustaining (within 25%)* increments	**Increment 4** (all remaining critical—both routine and non-routine—to sustain expected future benefits of project and support/meet the target level output/service; added costs above total of Increments 1 & 3)
"Non-Critical" Sustaining and Capability – sustain expected future benefits and recommended to meet targeted performance levels; enable greater levels of performance in future years, expected high return on investment	**Increment 5** (capability or enhanced) work recommended to meet target performance level; work to enable greater levels of performance in future years –exceeding performance targets; additional costs above Increment 4)

e. **Well-Written Budget Package Descriptions and Funding Justifications**. In this performance based budget, every E-S budget package must relate to an increase in program performance or results. These linkages must be clear to all levels of reviews, both internal and external (e.g., OMB or Congress) to the Corps. Care should be taken to write all budget package descriptions and

justifications clearly and concisely so that the reader can understand and appreciate the work for which funds are being requested. Well-written justifications are essential to convince reviewers who are not familiar with the work to fund your needs.

f. Each budget package will be assigned to one of the E-S incremental funding categories based on the performance measure output criteria and ranking factors specified for each increment. These criteria and ranking factors are described in the paragraphs that follow. Budget packages assigned in the described increments will be used to develop the HQ proposed CW "Ceiling"**,** "Recommended" and "Capability" programs.

II-3.5. **Budget Increments for Environment-Stewardship.** Please reference the definitions and guidance concerning O&M program Increments in the Project Operations and Maintenance Sub-Annex C-2 of this EC. The Environment-Stewardship budget increments are generally aligned with the overall O&M increment structure. However, the utility of Increment 2 as described in the O&M structure is not very meaningful for the E-S program. **Therefore, a separate Increment 2 for E-S (that corresponds with the O&M increment descriptions) will not be built**. Those critical, time-sensitive, minimal program level budget packages (for both routine and non-routine activities) will be combined into one increment for consideration in building the minimal E-S program. The minimal E-S program is defined as the E-S portion of the MSC minimal program. The total amount of the minimal E-S program must be assigned to Increment 1 in P-2 and must be within the MSC minimal program limit (75% of the amount in Table **C-2.2** by MSC). The E-S increments are defined by the type of work proposed in each, by outputs toward the current E-S performance measures (Table II-3-2) as assessed by performance measure output criteria, and by the priority work contained in each increment, as assessed through ranking factors. Each increment will include budget packages that must provide justified and quantifiable outputs toward one or more of the current performance measures. All six-performance measures apply through each increment; however, the performance measure output criteria and ranking factors may vary. These are described specifically in paragraph II-3.6. General descriptions of each of the Environment-Stewardship Increments follow in the paragraphs below.

a. **Increment 1** - *Minimal*. Each MSC will build an Environment-Stewardship minimal program budget that is based on performance measure outputs and that includes the least amount of funding necessary to accomplish only those critical and time-sensitive (must be performed in FY10) project work efforts that are necessary to meet the minimum legal mandates, environmental requirements, to prevent the loss of significant natural and cultural resources, and to meet minimum project operating and safety requirements of the budget year. All work outside the minimal program will be competed based on current program priorities and guidance from higher level authority. The minimal Increment should provide the greatest benefit for the investment, based on performance measure outputs, and should support FY10 performance targets. This Increment will seek to avoid violation of: legal mandates for natural and cultural resources stewardship, environmental compliance, operation, and safety. Work and funding included in this Increment contribute to the development of the HQ CW Ceiling program for the budget year. Minimal increment work packages will be assigned to Increment 1 in P-2.

b. **Increment 2** – NOT APPLICABLE – DO NOT USE.

c. **Increment 3** -*"Critical" Sustaining (Within 25%).* This increment is the next above the minimal program and the first of three increments used to assign *sustaining* program budget packages. Sustaining program activities are generally defined as "state of the practice" and needed to sustain the expected future benefits. In most cases activities will support continuing the level of service that customers, stakeholders, and others have come expect and depend-on for sustaining public safety and economic, environmental and social benefit. Packages in this increment also support meeting FY10 targeted levels of performance (see Table ll-3-4). **Increment 3 is limited in dollar value to 25% of the**

5-year average O&M President's budget by MSC. It is to **incorporate only those additional "critical**", time-sensitive, least-cost activities that **meet the description and work type criteria of Increment 1 (minimal program),** but that are not accommodated in that increment due to the MSC minimal program dollar limitation. (The high priority budget packages in this increment will receive a special identifier in E-S BEST to distinguish them among all "critical" sustaining type packages.) The combined cost of Increments 1 and 3 must be within the MSC's 5-year average of the O&M President's budget amounts by MSC (see Table C-2.2). Budget packages included in this Increment must be performance based and provide quantified and increased output (in addition to the minimal increment) toward one or more of the E-S performance measures. This program increment will be prioritized for relative effectiveness and efficiency in accomplishing the performance objectives and outputs, and will realistically reflect work that can be accomplished or reflect necessary funds that can be obligated in the budget year, and as applicable, reflect realistic financing capability on the part of non-Federal sponsors. As fiscal constraints dictate and efficient performance outputs justify, budget packages of this increment will be evaluated in developing the HQ CW "Ceiling" and "Recommended" level programs for the budget year. Budget packages in the E-S BEST *"Critical" Sustaining (Within 25%)* Increment will be assigned to Increment 3 in P-2.

d**. Increment 4** - *"Critical" Sustaining (Remaining).* This increment is the second of three used to assign the *sustaining* program budget packages and next above Increment 3. Sustaining program activities are generally defined as "state of the practice" and needed to sustain the expected future benefits. In most cases activities will support continuing the level of service that customers, stakeholders, and others have come expect and depend-on for sustaining public safety and economic, environmental and social benefit. Packages in this increment also support meeting targeted levels of performance (see Table ll-3-4). This increment is to **include all remaining "critical",** time-sensitive, least-cost activities **that meet the description and work type criteria of Increment 1 (minimal program),** but that are not accommodated in either Increments 1 or 3 due to their dollar limits. (Budget packages will receive a special identifier in E-S BEST to distinguish them within all "critical" sustaining activities.) Budget packages must be performance based and provide quantified and increased output toward one or more of the E-S performance measures. Budget packages will be prioritized for relative effectiveness and efficiency in accomplishing the performance objectives and outputs, and will realistically reflect work that can be accomplished or reflect necessary funds that can be obligated in the budget year, and as applicable, reflect realistic financing capability on the part of non-Federal sponsors. As fiscal constraints dictate and efficient performance outputs justify, only the highly efficient budget packages of this increment will be evaluated in developing the HQ CW "Ceiling" and "Recommend" level programs for the budget year. Budget packages in the E-S BEST "*Critical" Sustaining (Remaining*) increment have costs that are in addition to (above) 100% of the MSC's 5-year average of the O&M President's budget amount (see Table C-2.2) and will be assigned to Increment 4 in P-2.

e. **Increment 5** -*"Non–Critical" Sustaining and Capability***.** This increment is the last of three used to assign *sustaining* program budget packages, and it will also include all *capability/enhanced* program budget packages. Sustaining program activities are generally defined as "state of the practice" and needed to sustain the expected future benefits. In most cases activities will support continuing the level of service that customers, stakeholders, and others have come expect and depend-on for sustaining public safety and economic, environmental and social benefit. These sustaining packages support meeting FY10 targeted levels of performance (see Table ll-3-4). Capability/enhanced activities are defined as those expected to have a high return on investment that enable greater levels of performance in future years (above targets in Table II-3-4). As priority, **Increment 5 will include those "non-critical" sustaining packages that directly support the achievement of targeted levels of performance,** through prudent, realistic, and efficient operation, management and maintenance of project natural and cultural resources. In addition, and of less priority, this increment shall include *capability/enhanced*

program budget packages which have a high expected return on investment that enable greater levels of performance in future years. (Special identifiers will be assigned in E-S BEST to distinguish *"Non-Critical" Sustaining* from *Capability/enhanced* level packages.) Budget packages in this increment will be evaluated in developing the HQ CW "Recommended" and "Capability" Programs for the budget year and will be assigned to Increment 5 in P-2.

II-3.6. **Performance Measure Output Criteria and Ranking Factors - by Increment.** All six Environment-Stewardship performance measures apply through each increment; however, the performance measure output criteria and associated ranking factors for budget packages may vary. Below, the overall outputs to be achieved are described for each performance measure, followed by the more specific performance output criteria and budget package ranking factors that are applicable in each E-S budget Increment. Budget packages in any increment must meet one or more of the performance output criteria for that increment. It is not necessary however to build or include budget packages for every performance measure in each increment. Build and include only those that are applicable to the project. Each budget package will be developed and assigned in E-S BEST to a single E-S performance measure, and in a single appropriate E-S increment in accord with the following.

a. **Mitigation Compliance**. Budget packages are for operations, management and maintenance requirements identified and/or specified in project authorization legislation or project authorization decision documents that are necessary to mitigate for adverse impacts to ecological resources unavoidably induced by Corps project construction or operation (see Illustration II-3-1). (Note: since mitigation can occur on other than fee-owned land, no land ownership criteria are fixed to the location of outputs toward this performance measure as long as there is an authorized Corps obligation.) "Mitigation" considered under this performance measure does not include compensatory requirements that result from routine real estate out-grant actions or routine O&M actions. The "Mitigation Compliance" performance measure will be assigned in E-S BEST to those budget packages that provide this output. The amount of mitigation performance output to be generated by "Mitigation Compliance" budget packages (e.g. number of mitigation acres directly affected, number of pounds or number of individuals of fish released, etc.) will be recorded in E-S BEST.

(1) **Mitigation Compliance Increment 1 –** *Minimal* - is for critical, time-sensitive (must be performed in the budget year), least-cost mitigation compliance work that may be accommodated within the total MSC minimal program dollar limit (see Sub-Annex C-2, Table C-2.2).

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

(b) Ranking Factors. Priority should be given to budget packages for the operations, management and maintenance of essential work as required by Congressional authorization or HQ approved project authorization decision document that maximize efficiency of funds invested for this purpose.

(2) **Mitigation Compliance Increment 3** - "*Critical" Sustaining Increment (Within 25%)* - is for *above the minimal program*, **"critical"** mitigation compliance operations and maintenance activities that are necessary in the budget year to sustain expected future benefits and levels of service, and to support meeting FY10 performance targets of mitigation outputs (see Table II-3-4). The cost of priority packages of this increment must be **within the amount limited to 25% of the 5-year average O&M President's budget by MSC**.

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

(b) Ranking Factors: Priority should be given to budget packages that respond to same ranking factors as in the minimal increment of this measure.

(3) **Mitigation Compliance Increment 4 -** *"Critical" Sustaining (Remaining)* - is for **all remaining "critical"** mitigation compliance operations and maintenance of the project activities that are necessary in the budget year. Budget packages in this increment are those priority packages which are **not accommodated in the Increments 1 or 3** due to increment dollar limits. Work in this increment is needed to sustain expected future benefits and levels of service of, and to achieve performance FY10 targets of mitigation outputs (see Table II-3-4).

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

(b) Ranking Factors: Priority should be given to budget packages that respond to same ranking factors as in the minimal increment of this measure.

(4) **Mitigation Compliance Increment 5 -** *"Non-Critical" Sustaining and Capability* - is for ***above Increment 4*** program work. It includes two types of budget packages that will be distinguished by special identifiers given in E-S BEST. As priority, this increment **will include "non-critical" sustaining (i.e. not critical, but recommended to be done in FY10) mitigation** operations and maintenance activities to sustain expected future benefits and levels of service of mitigation outputs. As the second priority, this increment **will also include capability/enhanced level budget packages** for work that is beyond activities which directly support the current management of mitigation activities and facilities. Such budget packages have a high expected return on investment and enable greater levels of performance in future years.

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

(b) Ranking Factors. Priority should be given to *"non-critical" sustaining level* budget packages for recommended practices included and described in approved Corps Feature Design Memoranda or other project authorization decision documents, or Operational Management Plans, that maximize efficiency of funds invested for this purpose, followed by budget packages for the *capability/enhanced level* that maximize efficiency of funds invested for this purpose.

b. **Endangered Species Protection.** Budget packages are for operations, management and maintenance activities necessary to comply with Endangered Species Act (ESA) requirements and for the protection of endangered and threatened species that occur on the project lands or that are impacted by project operation (see Illustration II-3-2). The "Endangered Species Protection" performance measure will be assigned in E-S BEST to budget packages that are to accomplish these outputs. [**Note**: the Bald Eagle, American Peregrine Falcon, Eggert's Sunflower, American Alligator are no longer listed by the Fish and Wildlife Service as Threatened or Endangered species. Budget packages that address these species, or any other federally de-listed species, shall be competed under the Healthy and Sustainable Lands and Waters performance measure.] Budget packages will indicate the least amount of funding necessary to perform the work in the budget year.

(1) **Endangered Species Protection Increment 1 -** *Minimal* - is for critical, time-sensitive (must be performed in the budget year) and least-cost endangered species protection work that may be accommodated within the total MSC minimal program dollar limit (see Sub-Annex C-2, Table C-2.2).

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

(b) Ranking Factors. Priority should be given to budget packages for federally listed endangered or threatened species with Final Biological Opinions; for federally listed endangered or threatened species with Draft "Likely Jeopardy" Biological Opinion; for other federally listed endangered or threatened species; that maximize efficiency of funds invested for this purpose.

(2) **Endangered Species Protection Increment 3 –** *"Critical Sustaining (Within 25%)* - is for *above the minimal* program, **"critical"** endangered species protection operations and maintenance activities that are necessary in the budget year to sustain expected future benefits and levels of service of, and to achieve FY10 performance targets of endangered species protection outputs (see Table II-3-4). The cost of priority packages of this increment must be within the **amount limited to 25% of the 5-year average O&M President's budget by MSC** (see Sub-Annex C-2, Table C-2.2).

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

(b) Ranking Factors: Priority should be given to budget packages that respond to same ranking factors as in the minimal increment of this measure.

(3) **Endangered Species Protection Increment 4 -** ***"Critical" Sustaining (Remaining)*** - is for all **remaining "critical"** endangered species protection operations and maintenance activities that are necessary in the budget year. Budget packages in this increment are those packages which are **not accommodated in the Increments 1 or 3** due to increment dollar limits. Work in this increment is needed to sustain expected future benefits and levels of service of, and to achieve FY10 performance targets of endangered species protection outputs (see Table II-3-4).

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

(b) Ranking Factors: Priority should be given to budget packages that respond to same ranking factors as in the minimal increment of this measure.

(4) **Endangered Species Protection Increment 5 –** *"Non-Critical" Sustaining and Capability/Enhanced* - is for ***above Increment 4*** program work. It includes two types of budget packages that will be distinguished by special identifiers given in E-S BEST. As priority, this increment **will include**

"non-critical" sustaining (i.e. not critical, but recommended to be done in FY10) endangered species protection operations and maintenance activities to sustain expected future benefits and levels of service of endangered species protection outputs. As the second priority, this increment **will also include capability/enhanced level budget packages** for work that is beyond ESA budget year compliance requirements. Such budget packages are expected to have a high return on investment and enable greater levels of performance in endangered species protection output in future years.

(a) Performance Output Criteria. Include *"non-critical" sustainable level* budget packages for research, monitoring or modeling required beyond evaluation to support the operations, management and maintenance requirements necessary for the project to implement "reasonable and prudent" project operation alternatives, or measures, on Corps fee-owned properties - as specified in Final ESA Biological Opinions, Final Recovery Plans, *Feature* Design Memoranda, Operational Management Plans, or other decision documents relating specifically to a particular operating facility; to implement Conservation Measures for federally listed species as described in Biological Opinions issued to the Corps by the U.S. Fish and Wildlife Service, and/or the National Marine Fisheries Service (USFWS/NMFS); to implement protection practices for State listed endangered or threatened species to prevent the adverse impact to such species; and *capability/enhanced level* budget packages that enhance endangered species protection activities.

(b) Ranking Factors. Priority should be given to *"non-critical" sustaining level* budget packages for federally listed endangered or threatened species with a final Biological Opinion; for federally listed endangered or threatened species with Final Recovery Plans; for state listed endangered or threatened species; that maximize efficiency of funds invested for this purpose; followed by *capability/enhanced level* budget packages for federally listed endangered or threatened species with Final Recovery Plans; for state listed endangered or threatened species; that maximize efficiency of funds invested for this purpose.

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

(1) **Cultural Resources Management Increment 1 –** *Minimal* - is for critical, time-sensitive (must be performed in the budget year) and least-cost cultural resources management work that may be accommodated within the total MSC minimal program dollar limit (see Annex C-2, Table C-2.2).

(a) Performance Output Criteria. Include budget packages to prevent imminent threats to historic properties as defined in NHPA Section 301, inadvertent discoveries as defined in NAGPRA Section 3 and archeological resources having religious or cultural significance as defined in ARPA Sections 3 and 4 through preservation and protection or by implementing appropriate mitigation measures; to complete the NHPA Section 106 "process", tribal consultation and coordination, law enforcement and other management measures identified in statutory, regulatory, and operational management directives; to complete requirements for specific cultural resources surveys, testing, evaluation, analysis needed prior to the initiation of critical O&M work; to house and curate archaeological collections to the standards outlined in 36 CFR Part 79 (Curation of Federally-Owned and Administrated Archaeological Collections).

(b) Ranking Factors. Priority should be given to budget packages for National Register of Historic Places (NRHP) listed resources on Corps fee-owned property); for projects with greater numbers of cultural resources sites; for existing curation contracts that continue to meet 36 CFR Part 79; for NRHP listed resources on Corps administered, less-than-fee owned, properties; for resources eligible for listing on the NRHP; for required activities in support of the OMP proposed development or proposed land disturbances; for work that completes the development a project HPMP during the budget year; that maximize efficiency of funds invested for this purpose.

(2) **Cultural Resources Management Increment 3 –** *"Critical Sustaining (Within 25%)* - is for *above the minimal* program, **"critical"** cultural resources management operations and maintenance activities that are necessary in the budget year to sustain expected future benefits and levels of service of, and to achieve FY10 performance targets of cultural resources management outputs (see Table II-3-4). The cost of priority packages of this increment must be within the **amount limited to 25% of the 5-year average O&M President's budget by MSC** (see Sub-Annex C-2, Table C-2.2).

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

(b) Ranking Factors: Priority should be given to budget packages that respond to same ranking factors as in the minimal increment of this measure.

(3) **Cultural Resources Management Increment 4 -** *"Critical" Sustaining (Remaining)* - is for all **remaining "critical"** cultural resources management operations and maintenance activities that are necessary in the budget year. Budget packages in this increment are those packages which are **not accommodated in the Increments 1 or 3** due to increment dollar limits. Work in this increment is needed to sustain expected future benefits and levels of service of, and to achieve FY10 performance targets of cultural resources management outputs (see Table II-3-4).

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

(b) Ranking Factors: Priority should be given to budget packages that respond to same ranking factors as in the minimal increment of this measure.

(4) **Cultural Resources Management Increment 5 –** *"Non-Critical" Sustaining* and *Capability/Enhanced* - is for ***above Increment 4*** program work. It includes two types of budget packages that will be distinguished by special identifiers given in E-S BEST. As priority, this increment **will include "non-critical" sustaining (i.e. not critical, but recommended to be done in FY10) cultural resources management** operations and maintenance activities -to sustain expected future benefits and levels of service of cultural resources management outputs. As the second priority, this increment **will also include capability/enhanced level budget packages** for work that is beyond cultural resources management mandated requirements. Such budget packages are expected to have a high return on investment and enable greater levels of performance cultural resources management in future years.

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

(b) Ranking Factors. Priority should be given to *"non-critical" sustaining level* budget packages to implement work on Corp fee-owned properties; that are in support of and in accord with the project OMP; to prepare a Historic Property Management Plan; that maximize efficiency of funds invested for this purpose; followed by *capability/enhanced level* budget packages for cultural resources on Corps properties; that maximize efficiency of funds invested for this purpose.

d. **Healthy and Sustainable Lands and Waters.** Budget packages are for operations, management and maintenance requirements to meet Corps responsibilities pursuant to the National Environmental Policy Act, Section 101, which establishes the continuing obligation of Federal government to fulfill its responsibilities as trustee for the environment. Budget packages are to improve and or maintain specific or general conditions for natural resources on Corps fee-owned lands or waters so that such acreages will be moved from a "degraded" or "transitioning" condition, to a condition that is classified as healthy and "sustainable" (see Illustration II-3-4). The "Healthy and Sustainable Lands and Waters" performance measure will be assigned in E-S BEST to budget packages that are to accomplish these outputs. Budget packages will indicate the least amount of funding required to accomplish work within the budget year.

(1) **Healthy and Sustainable Lands and Waters Increment 1 –** *Minimal* – is for critical, time-sensitive (must be performed in the budget year) and least-cost healthy and sustainable land and water resources activities that may be accommodated within the total MSC minimal program dollar limit (see Sub-Annex C-2, Table C-2.2).

(a) Performance Output Criteria. Include budget packages necessary: to accomplish essential routine and/or basic stewardship functions for the protection of project natural resources on Corps fee-owned acreage; to protect Corps fee-owned lands and waters against encroachments and imminent loss of significant natural resources (including soils, vegetation, and animal species) due to erosion, wildfire, pest outbreaks, trespass, or human activities and/or environmentally induced events (e.g. include activities such as minimal boundary monitoring/surveillance, essential evaluation of and response to land use requests such as road or utility right-of way requests by non-Corps entities, compensation requirements resulting from routine real estate out grants and routine O&M actions, fire/pest prevention, timber theft monitoring; fish and wildlife sustainability practices such as counts, evaluation and/or monitoring); to provide safe and efficient passage, collection, and/or transportation for adult and/or juvenile fish at multi-purpose Corps facilities as required in authorizing legislation and/or a relevant HQ approved decision document (e.g. fish passage facilities operation, water quality monitoring as required for fish health and safety, and transportation of fish) – [DO NOT INCLUDE the costs of Mitigation or ESA compliance activities related to fish passage, collection and or transport. Instead, use the Mitigation Compliance or Endangered Species Protection measure.]; to operate project facilities directly related to the stewardship of natural resources; to provide oversight and coordination of environmental stewardship activities related to the management of the Shoreline Management Program.

(b) Ranking Factors. Priority should be given to budget packages: that are necessary in the budget year to meet legal and regulatory requisites of the National Environmental Policy Act, or other federally legislated stewardship directives; that achieve significant progress in moving fee-owned lands from a "degraded" to "transitioning" status (see Illustration II-3-4); that protect environmentally sensitive areas that are designated in accord with ER/EP 1130-2-550 and that are identified in the project Master Plan; that benefit projects with higher total numbers of Shoreline Use Permits and/or Real Estate outgrants currently in effect; that directly controls, eradicates or prevents the introduction of, invasive species populations; that directly benefit significant species - <u>not otherwise protected by legislated</u>

mitigation or ESA measures - that are identified in project authorization documents and that are significantly susceptible to loss in the budget year; that maximize efficiency of funds invested for this purpose.

(2) **Healthy and Sustainable Lands and Waters Increment 3 –** *"Critical" Sustaining (Within 25%)* - is for *above the minimal* program, "critical" healthy and sustainable lands and waters management operations and maintenance activities that are necessary in the budget year. Budget packages in this increment are to sustain expected future benefits and levels of service, and support meeting FY10 performance targets of healthy and sustainable land and water outputs (see Table II-3-4). The cost of priority packages of this increment must be within the **amount limited to 25% of the 5-year average O&M President's budget by MSC** (see Sub-Annex C-2, Table C-2.2).

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

(b) Ranking Factors: Priority should be given to budget packages: that respond to same ranking factors as in the minimal increment of this measure.

(3) **Healthy and Sustainable Lands and Waters Increment 4 -** *"Critical" Sustaining (Remaining)* - is for all **remaining "critical"** healthy and sustainable lands and waters management operations and maintenance activities that are necessary in the budget year. Budget packages in this increment are those packages which are **not accommodated in the Increments 1 or 3** due to increment dollar limits. Work in this increment is needed to sustain expected future benefits and levels of service, and supports meeting FY10 performance targets of healthy and sustainable lands and water outputs (see Table II-3-4).

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

(b) Ranking Factors: Priority should be given to budget packages: that respond to same ranking factors as in the minimal increment of this measure.

(4) **Healthy and Sustainable Lands and Waters Increment 5 –** *"Non-Critical" Sustaining and Capability/Enhanced* - is for a***bove Increment 4*** program work. It includes two types of budget packages that will be distinguished by special identifiers given in E-S BEST. As priority, this increment **will include "non-critical" sustaining budget packages (i.e. not critical, but recommended to be done in FY10) for** healthy and sustainable lands and waters operations and maintenance activities. Such budget packages will result in the prudent and recommended operations, management and maintenance of project natural resources that prevent decline in resource condition or safety, or move those that resources toward a healthy and sustainable condition. Budget packages are to sustain expected future benefits of and levels of service for healthy and sustainable lands and waters, and meet FY10 performance targets of this performance output (see Table II-3-4). As the second priority, this increment **will also include capability/enhanced level budget packages** for work that is beyond mandates or requirements for healthy and sustainable lands and water. Such budget packages are expected to have a high return on investment and enable greater levels of performance (beyond FY10 targets in Table II-3-4) for healthy and sustainable lands and water outputs in future years.

(a) Performance Output Criteria and Ranking Factors. Include *"non-critical" sustaining level* budget packages: to implement management practices to meet operational goals and objectives presented in project Master Plan and Operations Management Plan (OMP) for Corps fee-owned properties (e.g. shoreline management planning, boundary maintenance, preparation of the OMP, evaluation of land use requests, fire or pest management, comply with federal natural resources protection laws); that will fulfill

any additional requirements deemed necessary for meeting the fish passage criteria as outlined in a Corps approved fish passage plan; to implement management practices to meet operational goals and objectives presented in project OMP for Corps easement properties; for any discretionary activities, conditions and facilities requested by US Fish and Wildlife Service, National Marine Fisheries Service and/or a State that are in accord with a HQUSACE approved final decision document; and *capability/enhanced level* budget packages to enhance condition of project lands and waters.

(b) Ranking Factors. Priority should be given to *"non-critical" sustaining level* budget packages: to prevent natural resources degradation or loss; to protect environmentally sensitive areas designated in accord with ER/EP 1130-2-550 and identified in the project Master Plan; for work accord with the recommended schedule and management practices prescribed in the project OMP or Corps approved fish passage plan; for special status species; for work to be accomplished in partnership with public or private entities that result in leveraged resources (e.g. challenge partnerships); that maximize efficiency of funds invested for this purpose; followed by *capability/enhanced level* budget packages that maximize efficiency of funds invested for this purpose.

e. **Level One Natural Resources Inventory Completion.** Budget packages are for operations, management and maintenance requirements to complete components (Vegetation, Wetlands, Project Land (Soils) Capability and Special Status Species) of the Level One Natural Resources Inventory. The minimum Level One Natural Resources Inventory, including the above components, is required on Corps fee-owned properties in accordance with ER 1130-2-540, to develop natural resource management objectives and land use classifications for the Master Plan and Operational Management Plan (see Illustration II-3-5). The "Level One Natural Resources Inventory" performance measure will be assigned in E-S BEST to budget packages that are to accomplish these outputs. Budget packages will indicate the least amount of funding necessary to accomplish the work in the budget year.

(1) **Level One Natural Resources Inventory Completion Increment 1** – *Minimal* - is for critical, time-sensitive (must be performed in the budget year) and least-cost level one natural resources inventory work that may be accommodated within the total MSC minimal program dollar limit (see Sub-Annex C-2, Table C-2.2). Budget packages will result in prudent operations, management and maintenance activities necessary to initiate, continue, or complete the level one natural resources inventories, that are required in the budget year.

(a) Performance Output Criteria. Include budget packages: to identify and describe the natural resources situated on the project fee-owned acreage, or anticipated to occur on the project fee-owned acreage (i.e. any component of the minimum Level One Natural Resources Inventory: special status species, vegetation, wetlands or land (soils) capability).

(b) Ranking Factors. Priority should be given to budget packages with the most effective combination of the following factors: work is needed to evaluate and determine the status of federally listed species thought to occur on the project; one third or more of the project fee-owned boundary is immediately adjacent to developed (commercial, residential, and industrial) lands; work supports development of an impending Master Plan supplement or update; work completes an individual inventory component, or a combination of inventory components, during the budget year; maximized efficiency of funds invested for this purpose.

(2) **Level One Natural Resources Inventory Completion Increment 3 –** *"Critical" Sustaining (Within 25%)* - is for *above the minimal* program, **"critical"** level one natural resources inventory operations and maintenance activities that are necessary to complete, continue, or initiate inventories in the budget year. Budget packages in this increment sustain expected future benefits and levels of

service, and support meeting FY10 performance targets of level one natural resources inventory outputs (see Table II-3-4). The cost of priority packages of this increment must be within the **amount limited to 25% of the 5-year average O&M President's budget by MSC** (see Sub-Annex C-2, Table C-2.2).

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

(b) Ranking Factors: Priority should be given to budget packages: that respond to same ranking factors as in the minimal increment of this measure.

(3) **Level One Natural Resources Inventory Increment 4 -** *"Critical" Sustaining (Remaining)* - is for all **remaining "critical"** level one natural resources inventory operations and maintenance activities that are necessary to complete, continue, or initiate the critical inventories in the budget year. Budget packages in this increment are those packages which are **not accommodated in the Increments 1 or 3** due to increment dollar limits. Work in this increment sustains expected future benefits and levels of service, and supports meeting FY10 performance targets of level one natural resources inventory completion outputs (see Table II-3-4).

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

(b) Ranking Factors: Priority should be given to budget packages: that respond to same ranking factors as in the minimal increment of this measure.

(4) **Level One Natural Resources Inventory Completion Increment 5 –** *"Non-Critical" Sustaining and Capability/Enhanced* - is for ***above Increment 4*** program work. It includes two types of budget packages that will be distinguished by special identifiers given in E-S BEST. As priority, this increment **will include "non-critical" sustaining budget packages (i.e. not critical, but recommended to be done in FY10) for** Level One Natural Resources Inventory operations and maintenance activities. Such budget packages are to complete, continue or initiate inventories that are recommended in the budget year. Budget packages are to sustain expected future benefits of Level One Natural Resources Inventory Completion and meet FY10 performance targets of this output (see Table II-3-4). As the second priority, this increment **will also include capability/enhanced level budget packages** for work that is beyond any mandated requirements for level one natural resources inventory. Such budget packages are expected to have a high return on investment and enable greater levels of performance in level one natural resources inventory completion in future years.

(a) Performance Output Criteria. Include *"non-critical" sustaining level* budget packages: to initiate, continue, or complete any component, or combination of components, of the Level One Natural Resources Inventory on Corps fee-owned properties to develop natural resource management objectives and land use classifications for the Master Plan; and for *capability/enhanced level* budget packages that accelerate the completion of minimum level one natural resources inventories, beyond FY10 performance targets.

(b) Ranking Factors. Priority should be given to *"non-critical" sustaining level* budget packages with the most effective combination of the following factors: factors included in the minimal increment of this measure; number of federal and state listed endangered and threatened that potentially occur on project lands; work included will result in the completion of the recommended Level One Natural Resources Inventory scheduled for the project; maximized efficiency of funds invested for this purpose; followed by *capability/enhanced level* budget packages: that maximize efficiency of funds invested for this purpose.

f. **Master Plan Completion.** Budget packages are for work to complete a Master Plan supplement or update for which the primary focus is to include natural resources management objectives, identify environmentally sensitive areas, and meet stewardship requirements of ER/EP 1130-2-550 (i.e. it is not appropriate for the entire master plan to be funded from the Environment-Stewardship budget), during the budget year (see Illustration II-3-6). The "Master Plan Completion" performance measure will be assigned in E-S BEST to budget packages that are to accomplish these outputs. Budget packages will indicate the least amount of funding necessary to accomplish the work in the budget year.

(1) **Master Plan Completion Increment 1 –** *Minimal* - is for critical, time-sensitive (must be performed in the budget year) and least-cost master plan work that may be accommodated within the total MSC minimal program dollar limit (see Sub-Annex C-2, Table C-2.2).

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

(b) Ranking Factors. Priority should be given to budget packages with the most effective combination of the following factors: one third or more of the project fee-owned boundary is immediately adjacent to developed (commercial, residential, and industrial) lands; age of Master Plan; budget package completes the project Master Plan or supplement in the budget year; maximized efficiency of funds invested for this purpose.

(2) **Master Plan Completion Increment 3 -** *"Critical" Sustaining (Within 25%)* - is for *above the minimal* program, **"critical"** master plan operations and maintenance activities that are necessary to complete, continue, or initiate required master plans, supplements or updates in the budget year. Budget packages in this increment sustain expected future benefits and levels of service and support meeting FY10 performance targets of master plan completion outputs (see Table II-3-4). The cost of priority packages of this increment must be within the **amount limited to 25% of the 5-year average O&M President's budget by MSC** (see Sub-Annex C-2, Table C-2.2).

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

(b) Ranking Factors: Priority should be given to budget packages: that respond to same ranking factors as in the minimal increment of this measure.

(3) **Level One Natural Resources Inventory Increment 4 -** *"Critical" Sustaining (Remaining)* - is for all **remaining "critical"** master plan operations and maintenance activities that are necessary to complete, continue, or initiate required master plans, supplements or updates in the budget year. Budget packages in this increment are those packages which are **not accommodated in the Increments 1 or 3** due to increment dollar limits. Work in this increment sustains expected future benefits and levels of service, and supports meeting FY10 performance targets of master plan completion outputs (see Table II-3-4).

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

(b) Ranking Factors: Priority should be given to budget packages: that respond to same ranking factors as in the minimal increment of this measure.

(4) **Master Plan Completion Increment 5** - "*Non-Critical" Sustaining* and *Capability/Enhanced* - is for ***above Increment 4*** program work. It includes two types of budget packages that will be distinguished by special identifiers given in E-S BEST. As priority, this increment **will include "non-critical" sustaining budget packages (i.e. not critical, but recommended to be done in FY10) for** Master Plan completion operations and maintenance activities. Such budget packages are to complete, continue, or initiate master plans, supplements or updates that are recommended in the budget year. These budget packages are to sustain expected future benefits and levels of service, and to meet FY10 performance targets of this output (see Table II-3-4). As the second priority, this increment **will also include capability/enhanced level budget packages** for work that is beyond any mandated requirements for master planning. Such budget packages are expected to have a high return on investment and enable greater levels of performance in master plan completion in future years.

(a) Performance Output Criteria. Include *"non-critical" sustaining level* budget packages: to update Master Plans in accord ER 1130-2-550 for all fee-owned property on operating Corps administered projects; and for *capability/enhanced level* budget packages that accelerate the completion of master plan, or master plan supplement, requisites beyond FY10 performance target levels.

(b) Ranking Factors. Priority shall be given to budget packages that provide the most effective combination of the following factors: factors included in the minimal increment of this measure; work is to update natural resources objectives, land use classification and the specific identification of all environmentally sensitive areas, on Corps fee-owned properties; age of the existing master plan; work is in accord with schedule to complete the plan; maximized efficiency of funds invested for this purpose; followed by capability/enhanced level that maximize the efficiency of funds invested for this purpose.

II-3.7. Five-Year Performance/Funding Glide Plan.

a. The CW Five-Year Development Plan purpose is to present an overview on how the funding for the CW program over a five-year period will produce results that contribute to achievement of the strategic goals and objectives in the CW Strategic Plan. The five-year plan focus is to undertake projects and activities that provide the highest net economic and environmental returns on the Nation's investment. See paragraph 8 (b) of the main part of this EC for details.

b. To accomplish development of the Environment-Stewardship Five-Year Recommended Performance/Funding Glide Plan, performance targets for each of the budgetary Environmental Stewardship Performance Measures (See Illustrations II-3-1 through II-3-6) have been established (Table II-3-4). These targets are set to achieve and maintain the E-S program compliance type outputs (e.g. Mitigation Compliance, Endangered Species Protection, Cultural Resources Management) as well as to achieve incremental progress in the other measured program outputs (Healthy and Sustainable Lands and Waters, Level One Natural Resources Inventory Completion, and Master Plans Completion).

c. Each project will submit the five–year funding stream that is necessary to both maintain, from year to year, the achieved levels of performance and to increase performance output each year by the percentages noted in Table II-3-4. The total budget needed will be entered in E-S BEST and will be exported to OFA for review. The funding streams will be the basis for the PY budget and the FY10 – FY 14 Five-Year Development Plan which will be submitted to Congress and Office of Management and Budget along with the budget submission. MSC five-year recommended programs must be included in the **27 June 2008** submission. After the MSC submit their five-year funding streams, a CW Five-year Development Plan will be prepared which contains the recommended programs.

Table II-3-4. FY10 Performance Targets for Five -Year Recommended Glide Plan					
Performance Measure	**FY**				
	2010	**2011**	**2012**	**2013**	**2014**
Healthy and Sustainable Lands and Waters	3%*	3%*	3%*	3%*	3%*
Endangered Species Protection	100%**	100%**	100%**	100%**	100%**
Level One Natural Resources Inventory Completion	5%*	5%*	5%*	5%*	5%*
Master Plan Completion	3%*	3%*	3%*	3%*	3%*
Cultural Resources Management	100%**	100%**	100%**	100%**	100%**
Mitigation Compliance	100%**	100%**	100%**	100%**	100%**

* Maintain performance level from previous year and increase performance output (as feasible) by this percentage.
** Attain and maintain this level of performance output.

ILLUSTRATION II-3-1

Environment – Stewardship
FY10 Performance Measure
Mitigation Compliance

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

Key Result Areas: Environment Stewardship Results and Justification

Customer: Public

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

> ***Mitigation lands***: Mitigation lands are those lands on which mitigation measures are taken to compensate for adverse ecological impacts unavoidably caused by Corps projects or activities. For the performance measure, these lands are those authorized by Congress or approved by HQUSACE in a formally documented authorization decision document.
>
> ***Mitigation fish hatcheries***: Mitigation fish hatcheries are those facilities which are which are funded or operated by the Corps for the taking, fertilization, incubation and hatching of fish eggs, and/or rearing of young fish to be released, to compensate for unavoidable adverse impacts to fish species or their habitat caused by Corps projects. For the performance measure, these fish are those that were authorized by Congress or approved by HQUSACE in a formally documented authorization decision document.
>
> ***Corps administered*** lands: Lands either managed by the Corps or lands licensed permitted or leased from the Corps.

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

Demonstrates: Status of Corps efforts to meet mitigation requirements.

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

Data Source: OMBIL, E-S BEST

ILLUSTRATION II-3-2

Environment – Stewardship
FY10 Performance Measure
Endangered Species Protection

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

Key Result Areas: Environment-Stewardship Results and Justification

Customer: Public

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

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

Demonstrates: Status of Corps efforts to meet ESA requirements.

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

Data Source: OMBIL

ILLUSTRATION II-3-3

Environment – Stewardship
FY10 Performance Measure
Cultural Resources Management

GOAL: Protect and preserve cultural resources.

Key Result Areas: Environment-Stewardship Results and Justification

Customer: Public

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

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

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

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

Data Source: OMBIL

ILLUSTRATION II-3-4

Environment – Stewardship
FY10 Performance Measure
Healthy And Sustainable Lands And Waters

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

Key Result Areas: Environment-Stewardship Results and Justification

Customer: Public

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

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

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

The result for this measure provides an indicator of the status of all Corps fee-owned acres (land and water). This indicator shall be the overall condition of project acreage as assigned during the inventory and classification of vegetation on Corps fee-owned 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: OMBIL

ILLUSTRATION II-3-5

Environment – Stewardship
FY10 Performance Measure
Level One Natural Resources Inventory Completion

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: Environment-Stewardship 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 rights, titles, and interest (not partial).

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: OMBIL

IILLUSTRATION II-3-6

Environment – Stewardship
FY10 Performance Measure
Master Plan Completion

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

Key Result Areas: Environment-Stewardship Results and Justification

Customer: Public

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

> **Master Plan**: The Master Plan is a document that guides the development, management and public use of the project.
>
> **Engineering Regulation (ER) 1130-2-550**: This regulation and its companion guidance, Engineering Pamphlet (EP) 1130-2-550, provide both the policy and guidance governing the preparation and development of Master Plans and Operational Management Plans.

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

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

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

Unit of Output: Compliant Master Plan

Data Source: OMBIL

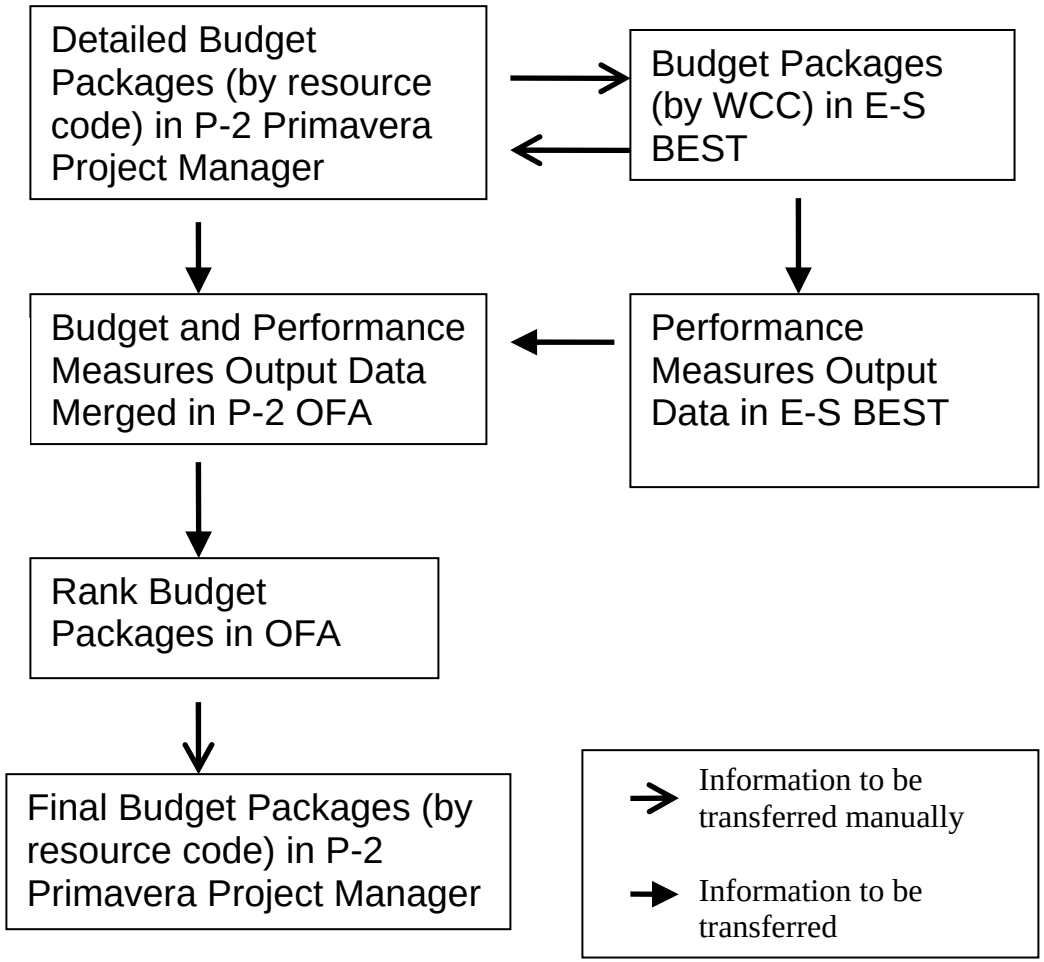
ILLUSTRATION II-3-7
FY10 Environment-Stewardship Budget Development Workflow

Two options for building your FY 10 budget: 1. Start in E-S BEST and then provide the budget information to your P-2 correspondent for data entry in P-2. 2. Start the budget development in P-2 then revise your E-S BEST budget information accordingly. For either option, it is recommended that the FY 09 budget data entered in P-2 should be carried over to FY 10 to minimize the effort of entering the same budget information again. Make sure to enter the matching BEST_ID when entering budget information in P-2.

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

HQ and MSC business line managers recommend the nationwide program using budget and performance measures output data submitted in P-2 and E-S BEST. Environment-Stewardship budget is then submitted to HQ, ASA, and later OMB for budget appropriation.

Final budget adjustment in P-2 based on President's budget. Manually adjust budget information in P-2 Primavera Project Manager based on final budget appropriation recorded in OFA.



SUB-APPENDIX II-4
Formerly Utilized Sites Remedial Action Program

II-4.1 **Introduction.**

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

b. Twenty-one sites still under evaluation and/or remediation were transferred from DOE to the Corps in FY1998. Three of these sites have been remediated and transferred back to DOE for long-term stewardship. Response activities on two more sites are essentially completed and are in the process of being transferred to DOE for long-term stewardship. Since FY 1998 DOE has identified an additional 12 sites as eligible for FUSRAP. The Corps uses a Potential Sites budget line item to fund the Preliminary Analysis/Site Inspection (PA/SI) for new eligible sites referred by DOE. The Corps has completed the PA/SI on ten of these sites, eliminating five of them from further consideration and adding six of these sites into the program for the reason of budgeting additional activities after concluding that a release or threat of release of a hazardous substance exists that warrants response action under CERCLA. Congressional direction resulted in adding one of the sites. The Corps is completing the PA/SI on the remaining site. Funds were budgeted for a total of twenty-two sites in FY09.

II-4.2 **Purpose.** To cleanup contaminated sites throughout the United States where work was performed as part of the Nation's early atomic energy program.

II-4.3 **Goals and Objectives.** The major objectives of the FUSRAP program are to evaluate and remediate, as necessary, sites identified by the Department of Energy (DOE) as eligible for consideration under FUSRAP. Each FUSRAP divisions' multi-year program should be developed and conducted in such a manner that projects are completed as soon as possible and at the lowest cost consistent with cleanup criteria. Criteria utilized are those that are protective of human health and the environment, responsive to regulatory and community interests, and in accordance with the current and reasonably foreseeable future land use.

Table II-4-1
FUSRAP Environmental Performance Measures:

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

II-4.4 **Five Year Plan.**

a. The five year plan development for FUSRAP projects will follow the guidance provided in Section TBD of the main part of the EC. The FY10 – FY 15 five year plan for the program will be finalized at the June 3, 2008 FUSRAP PRP meeting in June.

b. The Final PY budget amounts will be provided after OMB Passback and the Divisions' five - year program will be updated. A final five-year plan is prepared for final submission to Congress and OMB in February 2009. The two scenarios are, a) the final budget scenario, this scenario will be the five-year ceiling program, and b) the enhanced (enacted) scenario will be based on PY-1 appropriations levels and adapted from the recommended program.

II-4.5 **Ranking Process.**

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

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

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

(1) Activities necessary to maintain site security and meet legal mandates.

(2) Preliminary Assessments/preliminary legal analysis of potential new sites at minimum sufficient level to determine if immediate human health or environmental safety threats exist. This criterion will be used to identify projects in the potential sites line item within the FUSRAP budget and from any available unobligated carryover funds.

(3) Continue previously awarded contracts for design, removal, or remediation projects under construction phase of remediation**.**

(4) Continue previously awarded contracts for Remedial Investigation, Feasibility Studies, and Records of Decision activities. Only award new RI/FS/ROD contracts where human health and/or environmental safety threats need to be characterized.

(5) Site closeout activities sufficient to meet legal and health and safety requirements and transition sites to DOE in efficient fashion.

(6) Removal Actions necessary to meet CERCLA criteria for time critical or non-time-critical removals.

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

(8) New contracts for design, removal, or remediation projects must be fully funded following established Civil Works policy (EC 11-2-192, Civil Works Execution EC).

II-4.6 **Performance Based Budget Increments.** Add additional budget items for logical, needed increments that contribute to the program performance measures in the table above.

II-4.7 **Program Phases.** Study/Implementation (Construction)

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

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

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

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

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

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

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

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

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

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

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

II-4.8 **Work/Activity Increment Guidance.**

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

b. Definition of Activity: A component of work performed during the course of a project. An activity could be a process (e.g. collection of data) or lead to a deliverable (write a report). Activities are the building blocks of the P-2 system – they have assigned durations, resources, and relationships. These increments do NOT define funding levels.

(1) Investigation/Study Increments:

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

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

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

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

(e) Increments 5 – 8: Not used.

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

(2) Implementation (Construction) phase Increments:

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

(b) Increment 2 - This increment will include the activities needed to sustain (not fall behind/not accelerate) the efficient project schedule based on the PMP. The total of the activities included in this level is not limited by the PY-1 budget. Multiple contracts should be submitted as separate increment requests and shown in priority order by District and MSC Rank. New starts may not be included. Increment must be performance based with high outputs and consistent with ranking.

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

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

(e) Increments 5-9: Not used.

II-4.9. **P-2 Requirements.**

a. P-2 will be used for developing the FY10 budget for FUSRAP.

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

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

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

e. The instructions that follow describe the specific tasks that must be done to develop the FY10 budget for Corps FUSRAP projects using PPM:

(1) **General Directions.**

(a) The budget EC for FUSRAP has been changed to reflect the use of P-2/OFA.

(b) Project managers must assign a program code, if one is not already assigned. The program code must be the six character CWIS code that has been assigned in PRISM for the project. If multiple P-2 projects have been created from one CWIS, then each P-2 project must be assigned the same program code. The program code will allow proposed budgets in P-2 to be matched to PRISM and CEFMS. A P-2 OP local configuration manager has the permission to add the program code to a project. The complete list of program codes is under review and will be added to the list of values for the program code in Oracle Projects. The program code can be added after the budget activities are added to a P-2 project.

(c) Each program manager will direct a LCM to create a separate WBS for budget development. The WBS should be named Budget. The WBS should be “Inactive” so that proposed budgets will remain in PM alone until ready for transfer to Oracle Projects. Additional child WBS levels can be added if

needed to help prepare the budget. At a later date, the WBS will be marked as “Planned” so that the budgets can be transferred to OP. The proposed budgets will not be transferred to CEFMS.

(d) Each project manager must add the activities and resources needed to complete FY10 work. This document will guide the content of the work added to P-2. All work will be described as one or more activities that require resources to complete.

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

Program Code

The Program Code links the CWIS used to identify FUSRAP projects in the Civil Works budget with the P-2 project. In most cases, there will be only one P-2 project per CWIS, but there are many cases where there are two or more P-2 projects per CWIS. Assigning the program code to each P-2 project allows a matching of CWIS to P-2 projects. A new code has been added to P-2. It is called WBS CODE (OVERRIDE). For WBS's that are not showing up properly, PM’s can assign this code at the WBS to resolve any UNKNOWN WBSs. The P-2 team will have to assign a code on each of the WBS's so they show up properly in OFA.

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

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

Project ID

This is the P-2 project ID assigned when the project is created in OP.

Project Name

This is the P-2 project name.

Primary Business Program

The primary business program is Civil Works Environmental.

Civil Works FY10 Funding Increment

This data element identifies the business funding increment for each activity. Each activity must be assigned to one and only one increment. The data element, CW FY10 Funding Increment, is used to assign the increment number to each activity. This code will be used to identify an activity as a FY10 budget activity, and will be used to extract FY10 budget activities for both PRISM and OFA. Please do not assign this activity code to any activities that are not part of the FY10 budget. This data element is similar to the funding requirements for FY09.

WCC – CEFMS (Civil Works)

The project manager must assign each activity to a work category code.

Activity ID

The activity ID is an alphanumeric code assigned to each activity. The code must be unique within each project.

Activity Name
This data element describes the work that will be done under the activity.

Task Organization
The task organization is assigned to each activity. The purpose of the task organization is to represent the office where non-labor dollars are scheduled and potentially costed.

Budgeted Total Cost
The budgeted total cost is the sum of the cost of the budgeted amounts for each resource assigned to an activity. All resources required to complete the activity must be entered for each activity to get a correct total.

Start
This is the expected start date for the activity.

Finish
This is the expected finish date for the activity. For the FY10 budget estimates, the resources for each activity within the limits of the fiscal year must equal the appropriate budget amount.

Ranks – Project, District, Division, Headquarters
These four data elements can be used to specify a rank for each activity within the project, district, division, or Corps. Ranks are not strictly used in the new performance based budget, but these data elements are available for use by each district or MSC, if desired.

Type of Funds
The type of funds describes the appropriation and catclass. This field is usually set at the wbs.

Type of Funds (Override)
This data element overrides the Type of Funds. Some projects may receive multiple types of funds. The override can be used to set the type of funds for some activities.

Area of Responsibility
This data element is set for each project and is the same as the EROC that had been assigned in ABS.

Activity Justification
There is a notebook element called work package justification that must be used to record the justification for an activity. The justification can be “pasted” into the Work Package Justification notebook topic from any Windows document. The term “work package” is a holdover from ABS.

Additional Activity Codes
There may be additional activity codes added to classify an activity. These activity codes will be used to identify special interest codes that may be added to the budget EC.

Budget Data Review
Each District and MSC Program Managers, Business Line Managers, Division Chiefs, Commanders, and other interested parties can begin review of the FY10 budget data as soon as it is added by the project manager. Each District and MSC will likely have their own processes to review budget data. Much of the review can be done using Primavera Project Manager and some can be done using Oracle

Financial Manager. Budget reports will be developed to show detail and summary data needed to review the budget.

Evaluation of Budget Increments

At the end of the review and approval process for each MSC, the budget data will be extracted. The level of detail of the data, either project-business-increment or process-business-increment-activity, will be determined by the HQ Business Line Manager. Once the data is extracted, each MSC will be responsible for adding performance measure data for each increment. HQ will evaluate each increment in the business area and set the overall rank of each increment.

(3) **Milestone Data Requirements.**

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

I. Eligibility Determination
II. Remedy Selection
III. Remedial Action (RA) Completion

(1) Eligibility Determination: The leading indicator for this goal is the completion of the PA/SI which will be “Milestone 1”. The milestone is the start of the remedial investigation (RI). This milestone is identified as “Milestone 2”.

(2) Remedy Selection: The leading indicator for this goal is the completion of the RI which will be “Milestone 3.” The milestone is the signing of the Record of Decision (ROD). This milestone is identified as “Milestone 4”.

(3) Remedial Action Completion: The leading indicator for this goal is the awarding of the initial construction contract, “Milestone 5”. There are two milestones identified for this goal: (1) the completion of the RA (identified as “Milestone 6”) and (2) financial project closeout (identified as “Milestone 7”).

(b) Schedules will need to be developed and entered into P-2 for these goals and milestones, as applicable from the current project phase to project financial completion/close-out. This information will be entered in the same format as the performance measure data requirements.

NOTE: Additional information will be provided at the FUSRAP PRP meeting.

APPENDIX III
FLOOD AND COASTAL STORM DAMAGE REDUCTION (FLOOD RISK MANAGEMENT) BUSINESS LINE
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APPENDIX III

Flood & Coastal Storm Damage Reduction (Flood Risk Management) Business Line

III-1. Background. The Corps has had the mission of reducing flood damages from the mid- 1800's. Today we plan, design, implement and operate projects that reduce damages from both riverine and coastal flooding. Many of the projects provide other outputs such as hydropower, water supply, ecosystem restoration and recreation. Corps flood and coastal storm damage reduction (F&CSDR) efforts range from technical assistance to small, local protection projects (levees or non-structural flood damage reduction measures) to major dams. Today, most Corps constructed flood protection projects are owned and operated by sponsoring cities, towns, and agricultural districts. However, the Corps continues to maintain and operate 383 dams and reservoirs for flood damage reduction as well as some levee systems and is authorized to continue shore re-nourishment at over 90 hurricane and storm damage reduction (Coastal and Great Lakes) projects. As regions continue to develop, populations increase, economic development in low lying area is more advantageous. Thus, the need for flood protection becomes of paramount importance.

III-2. Purpose. The Corps F&CSDR goal is to reduce the Nation's flood risk by investing in flood and coastal storm damage reduction solutions in environmentally sustainable ways when the benefits exceed the costs. Our program enhances the quality of American life by reducing flood risk to both life and property, providing additional benefits to individuals, communities, and the national economy.

III-3. Civil Works Program Objectives.

a. The Civil Works (CW) Strategic Plan, dated March 2004 was developed with an explicit assumption of an unconstrained resource environment to encourage an unconstrained assessment of the nation's water resources needs and potential Corps response. Preparation of the FY 10 Budget Request requires the recognition of a constrained budget environment and the ongoing effort to evolve better budget linked performance measures. Table III-1 presents program objectives, performance measures and/or performance ranking and rating criteria which support and/or supplement the CW program objectives and performance measures for the F&CSDR to reflect the near term realities of a constrained FY 10 budget environment.

b. The Civil Works Five Year Development Plan (CW FYDP) purpose is to present an overview on how the funding for the Civil Works program over a five-year period will produce results that contribute to achievement of the strategic goals and objectives in the Civil Works Strategic Plan. See paragraph 6 (a) (2) "Civil Works Five Year Development Plan". The Five Year Development Plan (FYDP) for the Flood and Coastal Storm Damage Reduction (F&CSDR) business line provides a regional (System and/or Watershed) management tool for use in accomplishing the Corps of Engineers' flood and storm damage reduction mission while providing the budgetary framework necessary for program development. They present an opportunity to objectively evaluate planning, design, construction, and operations and maintenance phases of new, continuing, and existing projects broken down into the three major appropriations and including the Mississippi River and Tributaries (MR&T).

c. Consistent with the Civil Works Strategic Plan a systems approach or watershed approach is needed to ensure that investments are integrated into a whole that preserves or enhances performance and sustainability at the system level. This requires consideration of the investment needs and priorities of all the business lines within the watershed. A systems based approach is a logical step toward coordination and focusing on requirements for making informed investments while providing maximized benefits to the public. It provides the structure for managing entire systems rather than separate elements. Systems and/or watershed principles approach flood risk management on a system-wide basis, taking into account varied land use, and flood risk reduction needs. They integrate planning and

flood risk management while promoting regional funding and planning which offer regional benefits and information for making wise investments, in order to provide maximized safety to communities and stakeholders. HQUSACE has established a national Dam and Levee Safety Program for studies, construction and interim risk reductions measures and long-term investments plans to minimize risk at high risk projects. These investments are captured through long range planning and multi-year development plans.

III-4. Performance Measures.

a. The Corps F&CSDR program is well established and valued, however our ability to continue to reduce flood risks to meet the needs of current and future generations is dependent upon adequate investments. Such investments provide for the necessary investigations of problems and development of projects, timely implementation of authorized projects, proper inspections of Corps and local projects, preventative maintenance or facility modernization or improvement, improvements to ensure the reliability and safety of projects, adequate data collection or improvements to increase operational efficiencies. The purpose of this budget guidance is to ensure the development of convincing rationale and justification of the budget request to accomplish the goal of reducing flood risk while meeting prescribed targets.

b. Accordingly, a nationwide perspective must be maintained to assure that available funding provides the greatest public benefit for the investment. Effective risk management requires an inventory of each class of assets, some form of standardized condition assessment, and a method to evaluate the reliability of these assets and consequences of unsatisfactory performance. But to effectively balance tradeoffs and integrate mission objectives through a risk management approach will require some common objectives or metrics and an integrated framework. Risk management evaluates which risks identified in the risk assessment process require management and selects and implements the plans or actions that are required to ensure that those risks are controlled. These risks must be communicated effectively to our stakeholders. Risk communication take place and involve an interactive dialogue between stakeholders and risk assessors and risk managers which actively informs the other processes.

c. The safety and security of our critical and existing infrastructure must be maintained, new investigations to address serious flood risks must be conducted and our uncompleted projects must be brought on line quickly so that benefits may be achieved as soon as possible. To achieve the F&CSDR program goal, the following budget objectives and ranking criteria are established for the FY 10 program. Each of the objectives and criteria are designed to demonstrate that each budget item makes sense and contributes to the CW objectives and the F&CSDR program goal.

TABLE III-1
Performance Measures and Budget Ranking Criteria

CW Strategic Goal/Objective	Budget Objective	Metric [Metric Column Number]
1.1, 1.2 and 1.3	Keep ongoing studies or PEDs going if likely to produce recommendation for project (I) or start new phase of studies or PED (I) to address critical needs	• Date of agreement – executed or expected [39,40,41] • Population at Risk (*PAR*)[50] • Population Affected (POP AFFECTED)[51] • High Combined flood risk factors (depth, velocity and warning time, *PAR* or *TPAR*)[53,54,55] • Estimated average annual damages (without project)[48] • Benefit to Cost Ratio – only for PED[43] • System or Watershed study score[62]
1.3	Complete ongoing construction to start achieving benefits and reduce future flooding impacts with new construction (C)	• Benefits Cost Ratio (*BCR*) for project[43] • Net Benefits[46] • Combined risk factors (depth, velocity and warning time, *PAR* or *TPAR*)[53,54,55]
5.1	Initiate and complete dam safety projects (C) Conduct dam and levee safety, seepage or static instability studies (C)	• Dam Safety Action Classifications (*DSAC)* [74] • Relative Risk Matrix Value from Condition Assessment, Consequence Category [68,69,70] • Population at Risk (*PAR*)[50] • Population Affected (POP AFFECTED)[51]
3.1	Operations - Assure that projects perform as designed (OM)	• % of time available[72] • O Index [64,65,66,84] • % of all required inspections, surveys that can be accomplished with a given budget increment[73]
3.1	Maintenance - Assure that projects perform as designed (OM)	• Relative Risk Matrix Value from Condition Assessment, Consequence Category [68,69,70] • % of design level available (may be less than 100% due to reduced conveyance, pool restrictions or storage limits, seepage, or other reduced level of protection) [71] • M Index as total damages prevented divided by cumulative M costs [64,65,67,85] • Special legal mandates – Y or N (describe in remarks)[76] • Safety issues – Y or N (describe in remarks) [77]

III-5. Budget Increments. In order to achieve the objectives shown in Table III-1, budget increments have been established to assure uniformity across the country in building annual budgets. Budget increments must reflect the eligibility criteria described in the following paragraphs. These increments in conjunction with the business line budget objectives and ranking criteria will assist in making informed and wise budgetary decisions to support the F&CSDR business line goals. All increments must be prioritized by each MSC and across appropriations except for increment "9" which is not budgetable. Additional funding increments are for each project in support of logical project execution which contributes to the program goals. The project capability is the summation of the increments for each project.

a. Investigations (I). For the F&CSDR budget items found in the investigations appropriations refer to the Main EC, Definitions and Glossary Section, Investigation Increments Guidance, in addition to the guidance below. All additional budget requests for studies, or meaningful portion of PED and new phases of studies, will be included in a MSC prioritized program. Additional amounts and priorities must be justified based on the performance measures and ranking criteria displayed in Table III-1. There may be more than one budget line item for a study. For any exceptions, the rationale must be documented in the remarks column.

b. Construction (C). The F&CSDR Construction items includes: specifically authorized projects, replacement projects, initial fill for beach nourishment projects, dam safety projects, deficiency corrections projects and dam safety, seepage, static instability studies (formerly in O&M in FY07) program. For new start or continuing construction projects, project economics must be justified as indicated in paragraph 10 b. (1) "Project Economics". There may be more than one budget line item for a project, or separable element meeting the criteria for an increment. Example: If a contract and significant staff time were required to meet the "optimal" schedule in the PMP, there may be two funding lines for that project in the increment. All construction activities will be budgeted in accordance with Main EC, Definitions and Glossary Section, Construction Increment Guidance, in addition to the guidance below.

(1) Each contract included in the initial increment and any additional increments must be shown separately to allow individual funding decisions based on the performance metrics and must be shown in priority order by District and MSC Rank. Contracts will be budget as fully funded if their estimated total value is $20M or less and must includes associated contract management, E&D during construction, and mandatory real estate activities. Additional increments must clearly show what the additional funding would accomplish and shall be described in the <u>REMARKS</u> field. Funding decisions must be based on performance metrics for that project.

(2) Dam Safety work items identified as DSAC = 1 and 2 shall be budgeted in Increment 2, unless there is an ASA approved continuing contract requirement then it can be included in Increment 1. This includes continuing Dam Safety Modification Studies, Dam Safety Interim Risk Reduction Measures (IRRM) Plans, and Dam Safety IRRM that provide information necessary to support studies or ongoing construction activities. Dam Safety work items identified as DSAC = 3 shall be budgeted within Increment 3. Dam Safety work items identified as DSAC = 4 and 5 shall be budgeted as capability level funding priorities.

(3) For shore protection projects that require beach re-nourishment in the PY, the necessary Federal funds should be identified, along with all associated performance data, and assigned an increment code of "9".

(4) Normal beach renourishment should be budgeted under the F&CSDR business line, Construction appropriation, in Increment 9. If there is a mitigation component to restore sand lost due solely to the impacts of a Federal navigation project, only that mitigation component should be budgeted

under the Nav BL, O&M appropriation, and the appropriate O&M Increment; or the appropriate Increment in the Continuing Authorities Program.

c. Operations and Maintenance (OM). All operations and maintenance will be budgeted in accordance with Main EC, Definitions and Glossary Section, Operations and Maintenance Increment Guidance, in addition to the guidance below. The 75% guidance for Increment 1 and 2 are here and the OM 75% table is found in Table C.2.2.

(1) Increments 1, 2 and 3 will seek to provide the greatest benefit for the investment consistent with performance measures and sufficient to meet a minimum level of service requirements for operation and maintenance of the existing infrastructure. Minimum level of service is further defined as the ABSOLUTE minimum requirements needed to maintain basic project operations without jeopardizing project purpose and function. Detailed project descriptions, justifications and purpose of the increment funds strengthen the funding request. Use approved inspection reports (with dates) to strengthen justification. The philosophy is to use initial increment as the minimum level of service to account for critical routine and non-routine operation and maintenance activities. Simple pro-rata allocations by district and / or project will not result in the expected performance based budget and should not be used. Contracts shall be according to current guidance as provided by CECW as contained in EC-11-2-192.

(2) The following items may be included in Increment 1 and 2 for all MSC's O&M requirements as prioritized below.

(a) Minimum Level of Service operations costs (usually dams) – may not be full 24-hour operation on site
(b) Minimum Level of Service maintenance (usually dams) – not all maintenance needs
(c) Critical Dam Safety Interim Risk Reduction Measures, including updating Emergency Action Plans and Conducting Emergency Exercises will be included and prioritized based on the *DSAC* classifications and program implementation guidance. See Annex C – Operations and Maintenance – Dam Safety
(d) On-going major maintenance – does not include new major maintenance
(e) Critical routine maintenance – does not include routine maintenance
(f) Operation and maintenance requirements for Critical Infrastructure Security Program (CISP) projects
(g) Dam Safety Program. On-going **(**National Priority studies (dam safety work in Construction) and work) replacements of high risk projects – does not include new replacements initial increment
(1) Routine monitoring, inspections, instrumentation data collection, instrumentation maintenance, surveys, training, emergency notification / Emergency Action Plan Updates, and dam safety exercises budgeted to ensure safe operations, and implementation reported to HQ quarterly via the Dam Safety Program Management Tools. Care must be taken to properly budget using exiting WCCs to allow accurate tracing of routine dam safety expenditures.
(2) Periodic Assessments (PA), which expand the scope of our currently scheduled Periodic Inspections (PI), will be initiated in FY10. Approximately one half of the PIs scheduled for FY10 will be expanded with new requirements for Potential Failure Mode Analysis and Risk Analysis in FY10. HQ will provide some centralized funding beyond traditional PI costs, for initial PAs, Districts must distinguish the projects selected for PIs in their remarks, and budget for additional data collection and technical and administrative support.
(h) Inspection of Completed Works (ICW), Flood Damage Reduction and Federally Authorized Shore Protection Systems and the Levee Safety Program. These programs will be based on systems approach using both the System codes and the 4-digit HUC codes and is to be budgeted accordingly. Districts will develop increments by state and indicate in the remarks, the total projects in the state and

the total to be inspected during this budget cycle. See Annex C – Operations and Maintenance – Inspection of Completed Works and Levee Safety. The following items may be included:

(1) General Levee Safety Inspection program coordination and management requirements;
(2) Routine and Periodic Inspections at pre-defined inspection intervals for Federal and Non-Federal Systems based upon current program implementation guidance and regulations. See Annex C – Operations and Maintenance – Inspection of Completed Works and Levee Safety;
(3) Pre-storm inspections of Federally authorized Hurricane Shore Protection Systems;
(4) Pre-inspection preparation and post inspection reporting and notification requirements;
(5) Coordination efforts with public sponsors or stakeholders:
(6) Technical review and approval of sponsor proposed alternations, improvements, excavations or construction which are in accordance with Corps policy and guidance for such proposals
(7) Maintenance and updating of the National Levee database and project O&M manuals.
(i) Scheduling of reservoir operations, including necessary instrumentation, etc.
(j) Cooperative gauging program costs
(k) Water management program costs
(l) Critical sedimentations surveys – limited to projects where sedimentation would have imminent adverse impact on flood control storage
(m) Update of water control manuals, limited to coordination, and dam tender instruction costs
(n) Studies and surveys for updating flood damage functions for oldest 10% of projects
(o) Legally required water quality modeling
(p) O&M for environmental compliance for threatened/endangered or other federally recognized significant species
(q) Update drought contingency management plans in areas of severe droughts.

(3) Additional increments (up to Increment 5) for both operations and maintenance may be included, but it must be clearly shown what the additional funding would accomplish. In general, initial increment requests will be to continue existing contract or proceed at existing level of effort, and additional increments would be to accelerate the work due to criticality of the effort. For example, a budget request of $x for maintenance (or operations) in Increment 1 allows operation at 80% of design and another request of $y for maintenance (or operations) in Increment 2 brings operation up to 95% of design. By considering the additional 15% of design performance with the average annual damages and number of people in the floodplain, a relative ranking of this project can assigned (both at the MSC and finally at the HQ levels).

(4) The OM items will be aggregated by increment and by phase code. You can elect to have items transfer to OFA individually to keep track of important high priority items. In order to keep individual line items from being aggregated during transferring there will be an Activity Code to allow lines to transfer individually.

(5) For projects, or segments of projects, that have dam safety issues, special effort should be made to ensure that all funding requests are prioritized based on risk and reliability. Major studies, repairs, monitoring, instrumentation, modifications and rehabilitation should be prioritized as part of the MSC Portfolio Risk Assessment screening (*PRA*). The results of the *PRA* screening should include rankings (*DSAC* Classification) based on probability of failure, human risk and economic risk; an estimate of annual funding requirements for the Seepage and Stability Wedge funds for FY09 - FY14; and, lists of risk reduction for major types of problems. The funding for these activities has been moved from O&M to Construction. Normal O&M activities that impact on the safety of the structure but are not specific dam safety activities (WCC=60233) should continue to requested in O&M.

(6) The Inspection of Completed Works (ICW), Flood Damage Reduction and Federally Authorized Shore Protection Systems and the Levee Safety Program should include additional program requirements not included in the initial increment and prioritize accordingly.

(7) Joint Activities and Joint Costs on non-Cat/Class 300 projects, activities previously considered as “Joint Activities” will be included in the project’s predominant business line. See Annex C, Paragraph C-2.3.b. Joint Activities and Joint Costs for guidance.

III-6. Budget Ranking. Ranking of the program will be based performance measures and risk-based indices as indicated in Table III-1 and detailed information provided in the F&CSDR data spreadsheet. Ranking consideration will also be consistent with the following priorities. The numbers in the brackets are the metric column number for the primary metrics used to formulate the budget. These data should have a high level of QA/QC to assure the importance of the project is captured.

a. In order to address the on-going Dam Safety Program, dam safety projects will be ranked using the Dam Safety Action Classifications (*DSAC)* values and as established by HQUSACE. These classifications have been determined for USACE dams which have undergone Screening for Portfolio Risk Assessment (*SPRA*) by agency dam safety experts, and concurred with by USACE Senior leaders. For further information see Annex B Construction - Dam Safety Assurance & Seepage/Stability Correction Program, paragraph B-2.5.

b. Increment 1 (Initial) will receive priority consideration for budget development and additional increments are prioritized and added sequentially to the program, by MSC rank. Priorities are based on there relative efficiencies and effectiveness in accomplishing approved performance objectives, goals and missions.

c. Systems or Watershed studies and/or projects will be given priority in accordance with the following criteria:

(1) Requires consideration of water resources development and management in the context of multiple purposes rather than single purposes, and, thus, facilitates the search for comprehensive and integrated solutions.

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

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

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

III-7. Data Required.

a. The data required for ranking budget requests as the national budget will be built using criteria provided in this annex and information contained in the F&CSDR Business Line spreadsheet as provided by each MSC. The common metrics in Columns 1-27 are defined in the Main EC, Common Data Fields Section. The definitions for individual data metrics are on the "Definitions" tab of the

spreadsheet. Data elements required for the FY 10 budget submission are contained in the “Criteria Matrix “tab. Additional information is provided below to further guide your budget development.

b. Combined Flood Risk Factors capture the non-monetary aspects of flood damage reduction projects to elevate priority and used when other metrics do not reflect the risk. The depth, velocity and warning time factors should be assessed for the with-out project condition and should be representative of the average hydrologic conditions in the project area. They should represent conditions in the flooded area that are, in general, the most likely to cause severe injury or loss of life. Similarly, the population and threaten population at risk (PAR and TPAR) help quantify the potential population in the affected area. Special considerations should be highlighted in the Risk Remarks field. A proxy for residual economic damages will be calculated from the Average Annual Damages and Average Annual FDR Benefits fields.

c. The Population At Risk *(PAR)* is defined as the number of people (lives, works, and transits) located in the floodplain without the project in place. The Population Affected *(POP AFFECTED)* is the number of people (lives, works, transits) located in the floodplain *(subset of the PAR)* afforded risk reduction by the project at its design level. Threaten Population At Risk *(TPAR)* is defined as a subset of the *PAR* which represents the residual population or number of people who remain in the flood plain for a flood event greater that the project design event.

d. Dam Safety Modification Evaluation Reports for Dam Safety Assurance Projects/Safety, and Seepage/Stability Correction Projects, and Levee Safety projects which the Corps still retains responsibility will be submitted under construction appropriation. Each dam safety assurance study (or group of similar studies for the same project) (WCC = 60233) should be a line item in the submission and identified with phase code (PHASE = SS) and the Dam Safety Action Classification code (DSAC = 1, 2, 3, 4, or 5). Use CCS codes 541, 641, etc. for Modification studies that will be cost shared in accordance to Dam Safety Assurance Program requirements (i.e. for studies addressing hydrologic and seismic deficiencies. Use CCS code 801 for Modification studies that will be cost shared in accordance with Major Rehabilitation Program requirements (i.e. studies for seepage and stability deficiencies.) The expected report completion date should be entered into the Phase Completion column. The additional funding required to complete the study should be entered into the Balance to Complete column. Continuing and Dam Safety Modification Studies for DSAC 1 and 2 projects will be budgeted in Increment 2 unless there is an ASA approved continuing contract requirement, then it can be included in Increment 1. New Dam Safety Modification Studies for DSAC 3, 4 and 5 projects, and for studies which have not received a DSAC rating, shall also be budgeted as capability. The final determination for Dam Safety studies and projects will be made at HQUSACE.

(1) The PURPOSE field should include what is being studied and estimated cost (magnitude) of the construction cost. Additional increments may be included but it must be clearly shown what the additional funding would accomplish. In general, the initial increment will be to continue existing contract/proceed at existing level of effort, and additional increments would be to accelerate the work due to criticality of the study.

(2) These individual studies will be submitted and evaluated at HQ with the dam or levee safety staff and ranked accordingly. The highest ranking studies will be combined, by HQ, into “the wedge” as part of the Remaining Items account and included in the final budget presentation. This information is needed for defending the amount of the dam safety “wedge” in the Construction program and the expected overall cost of the dam safety program.

e. Dam Safety Interim Risk Reduction Measures (IRRM) Plans and Approved Interim Risk Reduction Measures. Effective 31 May 2007 USACE issued new guidance to develop IRRM Plans for DSAC 1, 2, and 3 projects, and implement actions to reduce the probability and consequences of

catastrophic failure to the maximum extent that is reasonably practicable while long term remedial measures are pursued. Funding for IRRM Plan preparation and implementation will be from the O&M account for the project, unless Construction account funds are available. When IRRM work is funded from the O&M account, the WCC will be 6120 for flood damage reduction (need to show under other Business Lines – 61130 for navigation, and 61630 for joint activities). When using C funds, WCC will be 30AT. When using C funds for structural measures, use CCS code 240, 540, or 640, based on the type project.

f. Watershed studies are multi-objective-multipurpose and encompass a relatively large geographic area. As a minimum, the study area must encompass the region of an 8 digit HUC. Following the reconnaissance study, a study may proceed as a watershed assessment (leading to a watershed management plan) in accordance with Section 729 or a watershed feasibility study in accordance with the traditional feasibility study process when implementation of a Corps project is anticipated. The key attributes of a watershed assessment, leading to a watershed score are further detailed in Section II-2.7 Watershed Studies.

g. The guidance for determining the Relative Risk for budget requests shall be developed for each project/maintenance budget item in accordance the following. The Relative Risk of a budget item is the resulting risk assuming the increment budget amount is provided and the work is complete. Each additional increment may result with an improved condition assessment thus increasing the Relative Risk. We want to see the condition improve as we invest into the asset by increment, unless it already has high reliability.

(1) A Condition Assessment involves identifying sources of potential conditions, assessing the likelihood or confidence level that they will occur. Project Condition Assessment for budget requests shall be developed for each project/maintenance budget item in accordance with the Table III-2. These assessments will provide for the initial basis for capturing the true state of the infrastructure or component thereof. In addition, these classifications provide the foundation for managing USACE infrastructure uniformly and consistently using asset management principles, systems and risk-based condition indices for operating and maintaining projects while directly embracing the Program Assessment Rating Tool initiative.

(2) Unsatisfactory performance, or Consequences Category does not necessarily include catastrophic failure, but rather poor performance under a given condition or operations and under constraints resulting in a reduction of project benefits or preventing the project from fully operating as authorized. In order to capture and incorporate the “consequences” effects of unsatisfactory performance, a series of factors have been developed. These factors represent the potential impacts to the project from a national, regional and local perspective and are defined in Table III-3. These factors include the Dam Safety Action Class *(DSAC)* classification, the population at risk (*PAR*) in the affected area of the facility, the disruptive and economic impacts, and potential environmental mitigation costs. Project Consequence Category for budget requests shall be developed for each project/maintenance budget item in accordance with the Table III-3.

(3) The “Relative Risk” matrix values are determined from Table III-4 using both the “Condition Assessment” and the “Consequence Category” values established for each project or budget item above. Note that more than one project/item can populate a box. Matrix values will be used in making informed and wise investments, minimizing risk and providing maximized benefits to the public. Ranking within each box (if required) will be determined as appropriate and based supporting justification from the MSC for projects. It is critical that an honest, defendable assessment and evaluation of each project be made for the ranking process in order to accurately provide a snapshot of where scarce resources need to be allocated to provide for a “risk-based” solution, efficient, effective,

reliable and safe operations for projects and facilities in accordance with their authorized purposes; and the unmet F&CSDR business line needs.

(4) The NAV and FRM risk matrices differ due to the differences in consequences. While not ideal, we consider this acceptable. The FRM consequences focus on loss of life, whereas NAV considers primarily economic impact. The FRM business line considers failure of any FRM project resulting in loss of life unacceptable and therefore places more emphasis on "Condition". Projects in failure (F) or approaching failure mode (D) are ranked higher than those in better condition.

(5) The NAV business line on the other hand focuses on funding projects with high economic return and places more emphasis on "Consequences". Therefore projects with greater economic consequences are ranked higher than those with less economic consequence even though the condition rating for the higher consequence project may not be as bad as the condition rating for the less economically important project.

h. The Cumulative O and M are provided by project from OMBL data to capture the last 5 years of data which will help define the current condition of the facilities. The data contains the fiscal years 2003 -2007 expenditures.

i. The O and M Index will be used to help prioritize the operation and maintenance activities in the budget and will be computed by HQ. The CUM DAM is the Cumulative Damages prevented by the project and the YCDS is the year in which the Cumulative Damage record started on the given project. The O Index will be computed by HQ in Column 84 and the M Index will be in Column 85.

$$\text{O Index} = \frac{\dfrac{\text{(CUM DAM)}}{2008 - \text{(YCDS)}}}{\dfrac{\text{Cum O}}{\text{5 yrs}}}$$

$$\text{M Index} = \frac{\dfrac{\text{(CUM DAM)}}{2008 - \text{(YCDS)}}}{\dfrac{\text{CUM M}}{\text{5 yrs}}}$$

j. The combined flood Risk index will be computed by HQ in Column 86. The risk velocity times the risk depth times the population at risk divided by the warning time.

$$\text{Risk Index} = \frac{\text{(velocity x depth)}}{\text{(warning time)}} \text{ x (PAR)}$$

k. The purpose, consequence and remarks fields are used to help rank the budget increments. It is not useful to repeat notes for the purpose of populating PBS/OFA. Read the definition of these data fields before developing these notes. The purpose should identify amounts for dam safety, hydraulic gate and bridge inspections with a short description of the work included in the budget. Legal mandates and safety issues should be described in the remarks field, i.e. Safety Issue: Project loses power several times a year due to vulnerable above ground power lines; or Legal Mandate: Treaty established by order of the International Joint Committee (IJC) in 1938. Also, if there is a waiver for economics, describe the circumstances in the remarks. When all metrics breakdown these fields should be crafted to compel the reviewer to fund these items.

TABLE III-2	
Condition Assessment Standards	
Condition Classification	**Definitions**
A Adequate	- There is a high level of confidence that the feature will perform well under the designed operating conditions. This confidence level is supported by data, studies or observed project characteristics which are judged to meet current engineering or industry standards. - There is a limited probability that the verified degraded conditions will cause an inefficient operation, or degradation or lose of service.
B Probably Adequate	- There is a low level of confidence that the feature will perform well under designed operating conditions, and may not specifically meet engineering or industry standards. The feature may require additional investigation or studies to confirm adequacy. - There is a low probability that the verified degraded conditions will result in inefficient operation, or degradation or loss of service.
C Probably Inadequate	- There is a low level of confidence that the feature will not perform well under designed operating conditions, and may not specifically meet engineering or industry standards. The feature may require additional investigation or studies to confirm adequacy. The feature does not meet current engineering or industry standards. - There is a moderate probability that the verified degraded conditions will result in inefficient operation, or degradation or loss of service.
D Inadequate	- There is a high level of confidence that the feature will not perform well under designed operating conditions. Physical signs of distress and deterioration are present. Analysis indicates that factors of safety are near limit state. The feature deficiencies are serious enough that the feature no longer performs at a satisfactory level of performance or service. - There is a high probability that the verified degraded conditions will result in inefficient operation, or degradation or loss of service**.**
F Failed	- The feature has FAILED - Historically the feature regularly experiences scheduled or unscheduled closures or loss of service for repairs.

TABLE III-3	
Consequence Rating Criteria	
Consequence Category	**Definitions**
I	PAR ➔ >100,000, TPAR ➔ >1,000 National to Multi-Region/Basin disruption of essential facilities and access. Economic Impact-Massive Losses (>$1B). Impact-National Massive environmental mitigation cost.
II	PAR ➔ 50,000 to 100,000, TPAR ➔ 500 to 1,000 Multi-Regional/Basin disruption of essential facilities and access. Economic Impact-Multi-regional losses. ($500M to $1B) major public and private facilities. Very large environmental mitigation cost.
III	PAR ➔ 25,000 to 50,000, TPAR ➔ 250 to 500 Regional disruption of essential facilities and services Economic Impact-Regional losses, ($250M to $500M). Large environmental mitigation cost.
IV	PAR ➔ 10,000 to 25,000, TPAR ➔ 125 to 250 Local to Regional disruption of essential facilities and access. Economic Impact-local to regional (>$125M to $250M). Medium Environmental mitigation cost.
V	PAR ➔ <10,000, TPAR ➔ <125 Local disruption of essential facilities and access. Economic Impact-local to regional (<$125M). Minimal to no Environmental mitigation cost.

TABLE III-4

Relative Risk Ranking Matrix

Consequence \ Condition		Condition Classification				
		F (Failed)	D (Inadequate)	C (Probably Inadequate)	B (Probably Adequate)	A (Adequate)
Consequence Category	I	25	24	20	16	11
	II	23	21	17	12	7
	III	22	18	13	8	4
	IV	19	14	9	5	2
	V	15	10	6	3	1

Relative Risk numbers are reversed from FY09. In FY10 Projects and facilities with low Relative Risk are adequate and low consequence.

- High Relative Risk
- Med-High Relative Risk
- Medium Relative Risk
- Low Relative Risk
- Minimal Relative Risk

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APPENDIX IV
HYDROPOWER
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APPENDIX IV

Hydropower

IV-1. Background.

a. The Corps is the largest owner/operator of hydroelectric power plants in the United States. The Corps' 76 plants are equipped with 356 generating units and have a total installed capacity of 20,750 megawatts. Corps plants produce about 70 billion kilowatt-hours of energy a year. Many of the projects at which hydropower facilities are located provide other outputs such as navigation, flood damage reduction, water supply, ecosystem restoration, and recreation.

b. The earliest hydropower plants at Corps projects were constructed at navigation dams, as joint efforts with electric utility companies. The utilities built the power plants and the Corps usually built the navigation locks. Later, Congress authorized the Corps to construct its own power plants at dams being built for flood control, navigation and other purposes. Most of these projects were placed into service during the decades following World War II.

IV-2. Program Mission. The mission of the Corps' Hydropower Business Line is to provide reliable hydroelectric power services at the lowest possible cost, consistent with sound business principles, in partnership with other Federal hydropower generators, the Power Marketing Administrations, and Preference Customers, to benefit the Nation.

IV-3. Civil Works Program Objectives.

a. Table IV-1 links the Civil Works (CW) Strategic Plan of March 2004 with the Hydropower Business Line strategic objectives and performance measures. A key assumption in the development of the 2004 CW Strategic Plan was the availability of unconstrained resources to achieve program objectives. The development of the FY 10 Hydropower Program budget will acknowledge a constrained budget environment and, in that context, will attempt to improve budget development based on unambiguous strategic objectives and performance measures.

b. The purpose of the Civil Works Five Year Development Plan (FYDP) is to present an overview on how funding for Civil Works programs over a five-year period will produce results that contribute to the achievement of strategic goals and objectives outlined in the Civil Works Strategic Plan. See paragraph 6 (a) (2), "Civil Works Five Year Development Plan," of the CW Strategic Plan. The FYDP for the Hydropower Business Line provides a regional (System and/or Watershed) management tool for use in accomplishing the Corps of Engineers' hydropower mission while providing the budgetary framework necessary for program development. They present an opportunity to objectively evaluate planning, design, construction, and operations and maintenance phases of new, continuing, and existing projects broken down into the three major appropriations Investigations (I), Construction (C), and Operations & Maintenance (O&M).

TABLE IV-1 Strategic Plan Objectives and Performance Measures	
1. Invest in hydropower rehabilitation projects when the benefits exceed the costs.	- Remaining Benefits to Remaining Cost Ratio (project specific measure)
2. Future: Invest in environmentally sustainable hydropower infrastructure improvements where economically justified.	- To be developed in the future.
3. Provide reliable hydroelectric power. 4. Provide peaking hydroelectric power. 5. Maintain capability to provide hydroelectric power efficiently.	- Unit forced outage rate. - Physical condition/failure risk index. - Peak unit availability rate.
6. Ensure that projects perform to meet authorized purposes and evolving conditions. Note: A program goal was not specifically identified for Hydropower; however, Joint Activities at multi-purpose hydropower projects should strive to achieve these objectives.	- De-rated generating units. - No measures identified for Joint Activities, but funding requests must be for critical requirements to avoid forced facility closures, public or worker life safety concerns, and/or legal mandates or treaty and Endangered Species Act compliance requirements for the budget year.

IV-4. Program Performance Measures.

a. Competition for Federal funds is very intense and getting tighter each year. In recent years, very difficult choices had to be made in distributing scarce Federal dollars. In a constrained funding environment, the many worthwhile maintenance needs must be prioritized across the entire spectrum of projects. In order to maximize results, limited resources have to be concentrated on the highest priority projects.

b. Within the Hydropower Business Line, funds are being directed primarily to those activities that will result in maintaining or increasing peak unit availability and reliability for power generation, securing cost-effective efficiency and performance improvements , and rehabilitating facilities that are in a deteriorated state. The Corps' Hydropower program is well established and highly valued. However, its ability to continue to provide clean, reliable, and sustainable energy at the lowest possible cost to meet the needs of current and future generations is dependent upon adequate investments. Such investments are essential to ensure reliable operation and availability of generating units; support preventive maintenance of equipment and facilities; allow adequate data collection, monitoring, condition assessments, and investigations of problems; and implement improvements to increase operational efficiencies. In addition, development of new or existing projects, timely rehabilitation of aging projects, and facility modernization or improvement also requires sufficient funding. The purpose of this budget guidance is to ensure there is alignment between the Hydropower Business Line's strategic objectives and its budget request.

c. A nationwide perspective must be maintained to ensure that available funding provides the greatest public benefit for the investment. The safety**,** security, and environmental sustainability of existing hydropower infrastructure must be maintained, new evaluations to address high yield

modernization of hydropower infrastructure must be conducted, critical maintenance activities backlog must be reduced, and uncompleted projects must be brought on line quickly so that benefits may be achieved as soon as possible. To achieve the hydropower goal stated above, the program objectives and ranking criteria outlined in Table IV-2 are established for the FY 10 program. Each of the objectives and criteria are designed to demonstrate that each budget item makes sense and directly contributes to meeting the objectives and stated goal of the program.

TABLE IV-2
Hydropower Budget Objectives and Ranking Criteria

CW Program Objective	Budget Objective	Ranking Criteria
1,2, 3, 4, 5 and 6	Adequately fund R&D products to gain future efficiencies (I)	Not applicable to Hydropower Business Line. R&D is funded under remaining items for the overall Civil Works Program.
1,2, 3, 4, 5 and 6	Complete ongoing major rehab projects to start getting benefits (C)	Benefits-Cost Ratio Annual net benefits Completion in budget year.
3, 4, 5 and 6	Assure that projects perform reliably as designed (O&M)	Number of De-Rated Units (Plant Level). MW-Yrs (Specific Investment) Portion of nameplate capacity restored from investment made multiplied by remaining life of unit in years. This does not include units de-rated for lack of water, regulatory requirements, policy decisions unrelated to physical deficiencies or other unmanageable conditions.
3, 4, 5 and 6	Make sure projects are available for peaking power requirements (O&M)	MW-Yrs: Benefit for restoration of generating unit in Forced Outage status (MW nameplate capacity multiplied by remaining life of unit in years).
1, 3, 4 and 5	Ensure capability to provide power efficiently (O&M)	Improvement of risk based plant condition assessment for key power components based on the hydroAMP tool condition/failure risk assessment method. MW-Yrs (Specific Investment) If hydroAMP data is unavailable, benefits for improvement in Average Unit Age may be used as a continuing interim measure of plant condition. Nameplate capacity multiplied by life extension in years achieved by investment made.
5	Ensure that projects perform to meet authorized purposes and evolving conditions.	No forced facility closures in the budget year. No project public access life safety deficiencies in the budget year. No project workplace life safety violations. No court ordered, legal mandate or treaty violations (includes ESA) in the budget year.

d. In order to achieve these objectives and assure uniformity across the CW programs in building annual budgets, minimum funding levels have been defined. Also established is a system of performance measures that are more detailed than those in the Civil Works Strategic Plan. This will permit objective evaluation of incremental investment choices to assure that budget requests above the minimum provide the greatest benefit for the investment. These minimum funding levels and the system of performance measures will go a long way to making informed and wise budgetary decisions to support the Hydropower Business Line's mission goal of improving reliability and minimizing cost and risk.

e. Effective risk management requires an inventory of each class of assets, some form of standardized condition assessment, and a method to evaluate the reliability of these assets and consequences of unsatisfactory performance. But to effectively balance tradeoffs and integrate mission objectives through a risk management approach will require some common objectives or metrics and an integrated framework. Risk management evaluates which risks identified in the risk assessment process require management and selects and implements the plans or actions that are required to ensure that those risks are controlled. These risks must be communicated effectively to our stakeholder. Risk communication take place and involve an interactive dialogue between stakeholders and risk assessors and risk managers which actively informs the other processes.

IV-5. Program Budget Screening Criteria. Definition of desired performance targets were developed with an understanding of past funding constraints and projected funding constraints.

a. New Start Definition - New start is defined as an active authorized study or project which has not received an initial work allowance and that fits into at least one of the following business lines: navigation, flood and storm damage reduction, environmental restoration, water supply, hydropower, or recreation.

b. Any Pre-Engineering and Design (PED) projects that has not been funded in the conference report for the past three years will also be considered a New Start. The New Start definition will apply to Recons, PEDs, and Construction Projects, as well as any new efforts under the Remaining Items category. For Feasibilities, see New Phase definition.

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

IV-6. Program Rating and Ranking Criteria. In order to achieve the objectives shown in Table IV-2, budget increments have been established to assure uniformity across CW programs in developing annual budgets from the same perspective. Budget increments reflect the eligibility criteria described in the following paragraphs. Increments 1 and 2 will receive priority consideration for budget development and represents the Hydropower Business Line minimal budget for routine and non-routine activities. Other increments are described in detail in the Definition/Glossary section" in the main text of the EC. These increments in conjunction with the business line budget objectives and ranking criteria will assist in making informed and wise budgetary decisions to support the Hydropower Business Line's goal. All increments must be prioritized by each MSC and across appropriations. Ranking of the program will be based on performance objectives and risk-based indices as indicated in Table IV-2 and detailed information provided in the Hydropower Business Line's Criteria Matrix data spreadsheet.

a. Federal Energy Regulatory Commission (FERC) Reliability Compliance Standards. The Corps of Engineers Hydropower Business Line will continue to voluntarily meet reliability requirements established by the North American Reliability Corporation (NERC). Each MSC should include in their budget submissions activities that would be required to meet electrical reliability standards as approved

by FERC and published by NERC. These activities will be ranked and considered separately under their unique "ceiling." Approved reliability standards can be founded at http://www.nerc.com/~filez/standards/Reliability_Standards_Regulatory_Approved.html. Table IV-7 contains the approved reliability standards that are applicable to the Corps as a Generator Owner and Generator Operator. Reliability compliance activities that are not part of Increment 1 routine activities should be submitted in a separate increment. See Section IV-6 e(3) below.

b. Systems Approach to Business Line Budgeting. Consistent with the Civil Works Strategic Plan, a systems or watershed approach is needed to ensure that investments are wholistically integrated, which preserves or enhances performance and sustainability at the system level. This requires consideration of the investment needs and priorities of all the CW Business Programs within the watershed. A systems based approach is a logical step toward coordination and focusing on requirements for making informed investments while providing maximized benefits to the public. It provides the structure for managing entire systems rather than separate elements. The Hydropower Business Line has developed risk management tools, interim risk reductions measures, and long-term investments plans to minimize the risk of forced outages or catastrophic equipment failure. These risk considerations should be integrated into long range planning and multi-year development plans.

(1) All FY 10 budget item requests (studies, construction, and O&M) shall be based on each MSC Five Year Development Plan and using systems and watershed principles which will include System codes and USGS Hydrologic Unit Classification (*HUC*) sub-region (4 digits) codes. USGS HUC codes may be found at http://water.usgs.gov/GIS/huc_name.html and the System codes are found in the Annex C – "Operations and Maintenance "

c. Risk Assessment and Asset Management.

(1) Successful strategic planning for the management of hydropower assets requires consideration and balancing of many factors, including the risks and consequences of equipment failure. Aging and deteriorating infrastructure poses significant risk to hydropower equipment reliability, and may result in reduced generating unit capacity, availability, and efficiency.

(2) Component condition is a critical factor in risk management because the likelihood of failure increases as component condition degrades. Routine maintenance activities are intended to identify and address deficiencies prior to their posing threats to equipment reliability. However, even with an effective maintenance program, equipment condition will eventually deteriorate to the point at which sustained outages will result. To effectively recognize and understand risks, it is imperative that the condition of major components be assessed and managed.

(3) HydroAMP Condition Assessment. There are numerous tests and inspections that can be performed on hydropower equipment to determine its condition in order to assess the risk of failure. Condition assessments are intended to assist management and other personnel involved in making decisions on replacement or rehabilitation when faced with competing demands and limited resources. An important tool in the Corps' Hydropower Business Line Asset Management strategy is the hydroAMP Condition Assessment tool. The majority of critical equipment in the Corp's hydropower inventory is near or beyond its design life. Equipment reliability has deteriorated, which significantly affects system generation availability. Substantial investment to repair, refurbish, or replace existing equipment is becoming necessary. An effort within the Hydropower Business Line is underway utilizing hydroAMP to determine condition indices for all major components in the power train of each generating unit. The hydroAMP Condition Index should be used, whenever possible, to develop and support budget priorities.

(4) Table IV-3 below provides guidance on classifying equipment condition into the following five categories: Good, Fair, Marginal, Poor or Failed. These condition classifications align with the hydroAMP ratings. If no hydroAMP assessment is available, the Definitions in the table can be used to guide the condition assessment and classification.

Table IV-3. Condition Classification Guidelines.

Condition Classification Guidelines	
Condition Classification	**Definitions**
A Good	There is a high level of confidence that the feature will perform well under normal operating conditions. This confidence level is supported by data, studies, or observed characteristics which are judged to meet current engineering or industry standards. Routine O&M is recommended.
B Fair	There is a medium level of confidence that the feature will perform well under normal operating conditions, although it may not specifically meet engineering or industry standards. The feature may require additional investigation or studies to confirm adequacy. Minimal restrictions to operation and/or minor maintenance may be necessary.
C Marginal	There is a low level of confidence that the feature will perform well under normal operating conditions, and it does not meet engineering or industry standards. The feature requires additional investigation or studies to confirm adequacy. Restricted operation and/or non-routine maintenance are necessary.
D Poor	The feature does not perform well under normal operating conditions, and it does not meet engineering or industry standards. Physical signs of serious damage or deterioration are present. Significant restrictions to operation and/or extensive non-routine maintenance are necessary.
F Failed	The feature has FAILED and is not longer operable without further tests, repairs, or replacement.

(5) The criticality of a generating asset is largely based upon the quantity of energy produced, particularly at peak periods, and the financial impact of a loss of generation. Other impacts that must be considered include public or life safety, legal or regulatory requirements, and the backlog of deferred maintenance.

(6) Table IV-4 below is used to evaluate and rate the consequences of a component's or system's failure to perform as intended. Consequence Rating Criteria include Economic Loss, Decrease in Performance, Increase in Life Cycle Costs, or Increase in Maintenance Backlog. Proposed maintenance or capital investments can be evaluated based on the consequences associated with the

affected component/system. The Consequences of not performing the proposed activity range from High (impact) to Minimal (impact).

Table IV-4. Consequence Rating Criteria

Consequence Category	Consequence Rating Criteria
1	**High:** - Public or Life Safety Impact and/or - Violation of Legal Requirement(s) and/or - Forced Outage or Closure resulting in Highest Economic Loss and/or - Greatest Decrease in Performance (e.g., efficiency, capacity, reliability) and/or - Greatest Increase in Life Cycle Costs and/or - Greatest Increase in Critical Maintenance Backlog
2	**Medium-High:** - Forced Outage or Closure resulting in High Economic Loss and/or - Great Decrease in Performance (e.g., efficiency, capacity, reliability) and/or - Great Increase in Life Cycle Costs and/or - Great Increase in Critical Maintenance Backlog
3	**Medium:** - Forced Outage or Closure resulting in Moderate Economic Loss and/or - Moderate Decrease in Performance (e.g., efficiency, capacity, reliability) and/or - Moderate Increase in Life Cycle Costs and/or - Moderate Increase in Critical Maintenance Backlog
4	**Low:** - Forced Outage or Closure resulting in Minor Economic Loss and/or - Minor Decrease in Performance (e.g., efficiency, capacity, reliability) and/or - Minor Increase in Life Cycle Costs and/or - Minor Increase in Critical Maintenance Backlog
5	**Minimal:** - Forced Outage or Closure resulting in Minimal Economic Loss and/or - Minimal Decrease in Performance (e.g., efficiency, capacity, reliability) and/or - Minimal Increase in Life Cycle Costs and/or - Minimal Increase in Critical Maintenance Backlog

(7) The Risk Matrix for the Hydropower Business Line is shown in Table IV-5 below. Risk is defined as the probability of failure times the resulting consequences. Since condition is generally related to likelihood of failure, the Risk Matrix utilizes the Condition Classification determined from Table 1, and the Consequence Category is determined from Table 2 above. Resulting risk scores range from a high of 25 to a low of 1, and the associated Risk Rating ranges from Extreme Risk to Negligible Risk. Components in deteriorated condition with extreme consequences of failure are assigned the highest risk rating. These ratings are useful in identifying the highest priority investments and only apply to Construction Replacement (CR), extraordinary non-routine maintenance (Phase Code M), Major Maintenance (Phase Code MM), and Major Rehabilitation (Phase Code MR) activities.

Table IV-5. Hydropower Risk Matrix

	Condition Classification				
Consequence Category	**F Failed**	**D Poor**	**C Marginal**	**B Fair**	**A Good**
1	25	24	22	21	15
2	23	20	19	14	10
3	18	17	13	9	8
4	16	12	7	6	3
5	11	5	4	2	1

Extreme Risk

High Risk

Moderate Risk

Low Risk

Negligible Risk

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d. INITIAL PROGRAM INVESTIGATION AND CONSTRUCTION. The initial program is defined by the criteria below for Investigation (I) and Construction (C) appropriations.

(1) I: There are no projects in this category for the Hydropower Business Line.

(2) C: The initial level for each project or separable element is limited to the amount needed for earnings (no more, no less) on the contracts funded in the FY 09 budget and continuing into FY 10, plus engineering and design, supervision and administration, and real estate activities associated with continuing construction of that project or separable element. Projects identified in the FY 2009 budget for consideration for suspension and other projects not budgeted in FY 2009 will have a minimum level of zero.

e. MINIMUM OPERATIONS AND MAINTENANCE (O&M). The minimum program for hydropower Operations and Maintenance will consist of Increments 1 and 2. Work Category Codes must be entered for each work O&M item in all increments to distinguish Power Operations and Maintenance activities from Joint Activity Operation and Maintenance activities. The Initial Increments 1 and 2 will seek to provide the greatest benefit for the investment consistent with performance measures and sufficient to meet minimum legal responsibilities for environmental compliance**,** operation and safety. Subsequent increments will provide additional benefits as measured by the performance measures. Increments 1 & 2 should not exceed 75% of MSC O&M total. Simple pro-rata allocations by district and/or project will not result in the expected performance based budget and should not be done. All increments must document performance according to the appropriate Business Program criteria. Operations activities should be submitted separately from maintenance activities, i.e., do not aggregate or sum operations and maintenance activities together as one activity. Additionally, do not aggregate operations or maintenance activities with a joint activity.

(1) **Increment 1** – **Minimum Level**. Activities included in this initial increment should only be critical routine activities that can be completed in the PY. Work activities that can be included in this increment are Critical Power Specific Operations & Maintenance Activities (Work Category Codes 603XX & 613XX) and Critical Joint Operation & Maintenance Activities (Work Category Codes 606XX & 616XX). Critical cyclical routine activities may be included in Increment 1. Critical cyclical routine activities are activities that are needed on a regular recurring basis but not every year. Also, other activities can be included to avoid maintenance staff reductions to a level that will preclude performance of basic routine preventive maintenance activities, forced facility closure, public or worker life safety concerns, or violation of court orders, legal or treaty obligations in the budget year.

(2) **Increment 2 – Minimum Level.** Activities included in this initial increment should only be critical non-routine activities. Critical non-routine activities are those that must be accomplished to insure project safety, and critical maintenance actions that are required to keep the project operating and delivering benefits. Non-routine activities are actions that are “project like” in that they are a unique action with a specific beginning and end. This increment includes major maintenance and rehabilitation. Each non-routine activity must be shown separately to allow individual funding decisions based on the performance metrics and must be shown in priority order by District and MSC Rank. The combined total

amounts for Increments 1 and 2, the Minimum Level Increment, should not exceed 75% of the amount in Table C 2.2 by MSCs in the O&M Annex.

(3) **Increment 2.5 - NERC Reliability Compliance Activities.** Activities included in this increment should only be required activities to voluntarily meet reliability standards approved by FERC (see Table IV-7) and are not included as routine activities in Increment 1. Increment 2.5 should not be combined with Minimum Level Increment (Increments 1 & 2) to meet the 75% requirement. These activities will be ranked separately and given special funding consideration in a budget wedge.

(4) **Increment 3 - Additional Operations and Maintenance Activities.** Primarily, Increment 3 should include O&M activities that the MSC considers necessary but are not critical to minimum operation and maintenance of the facility. If there are remaining critical activities above the 75% included in the Minimum Level Increment, these activities should be included in Increment 3. For line item comparison purposes, the following specific repair and replacement work packages will transfer directly into P2 without aggregation with other work packages (regardless of which funding increment they are entered in) and must meet one or more of the following criteria:

(a) Funding to restore a regionally critical generating unit that is in Forced Outage status. Benefits for ranking purposes expressed in MW-Yrs (MW of nameplate capacity of generating unit multiplied by remaining life of generating unit in years).

(b) Funding to restore the de-rated capacity of a generating unit. Benefits for ranking purposes expressed in MW-Yrs (MW of de-rated capacity restored multiplied by remaining life of generating unit in years).

(c) Funding to improve the condition or reduce failure risk of a critical power component under the hydroAMP condition assessment methodology. In lieu of MW-Yrs, a numeric code must be entered to reflect the component type as follows:

1 = Generator
2 = Turbine
3 = Governor
4 = Exciter
5 = Transformer
6 = Circuit Breaker
7 = Surge Arrestor
8 = Batteries

(d) Funding to extend the life of the generating unit. Benefits for ranking purposes expressed in MW-Yrs (MW of nameplate capacity of generating unit multiplied by number of years the generating life has been extended in years).

(e) Preparation of reports for Major maintenance (MM) and rehabilitation (MR) can be included in this increment. MM and MR activities must have approved reports before they can be included for implementation. Increment must be performance based and integral with a study/project with high outputs and consistent with ranking.

(5) **Increment 4** – This increment includes operation and maintenance activities, both routine and non-routine, above the 100% level of the Table C 2.2 level by MSC, that are defined by the state of the practice and are needed to sustain the expected future benefits of the project. In most cases, activities in this increment will support continuing the level of service that customers, stakeholders, and others have come to expect and depend-on for sustaining public safety and economic, environmental and

social benefits. Multiple Increment 4 activities should be submitted that reflect the logical pieces of routine or non-routine activities beyond the 5 year average limit. Increment must be performance based and integral with a study/project with high outputs and consistent with ranking.

(6) **Increment 5 -** Operation and Maintenance activities that do not specifically meet the requirements above, that are deemed to be prudent and necessary, and can be completed in the budget year should be ranked in this increment. Activities that have a high expected return on investment that enable greater levels of performance in future years should be included in this capability increment.

IV-7. Performance Based Budget Increment(s). Add additional budget activities for logical, needed increments that contribute to the program goals for the PY. These additional work packages should be identified with adequate data to present a clear understanding of the benefits and improved performance that can be achieved and represented by the performance measures listed in Table IV-2. Performance measures will also be used to support increased funding for major rehab of high yield hydropower facilities and all capabilities in the PY for each study and project. The studies and projects included within the capabilities need not be scheduled for completion within the PY.

IV-8. Joint Costs Activities. Joint Costs are activities that cannot be assigned to one specific business line at Cat/Class 300 (Multipurpose with Power) projects. Joint Costs activities for all business lines should be assigned to the Hydropower Business Line. For non-Cat/Class 300 projects, joint activities should be assigned to the project's predominant business line. See Annex C – 2.3 (b) for further guidance on managing Joint Costs Activities in the PY budget process.

IV-9. Budget Data Requirements. The data required from each MSC for prioritizing the Hydropower Business Line budget requests for the PY will be developed using the criteria provided in this appendix and information contained in the Hydropower Program Criteria Matrix spreadsheet (Table IV-6). Data elements for submission are contained in the budget spreadsheet are shown in the "Criteria Matrix" tab and definitions for each data element are contained in the "Definitions" tab of the spreadsheet in Table IV-6.

TABLE IV-6

May 08 HYD
spreadsheet.xls

TABLE IV-7

NERC Reliability
Standards Table IV-7

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NAVIGATION
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APPENDIX V

Navigation

V-1. Background. The Corps has had the navigation mission since 1824. Today we plan, design, operate and maintain projects that support 2.47 billion tons of commerce annually. Many of the projects provide other outputs such as flood damage reduction, hydropower, water supply, ecosystem restoration and recreation. The Corps operates and maintains 926 navigation projects ranging from shallow-draft harbors, inland navigation systems with 240 locks at 195 sites, to major deep-draft ports.

V-2. Purpose. The Corps' Navigation goal is to provide safe, reliable, efficient, effective and environmentally sustainable waterborne transportation systems for movement of commerce, national security needs, and recreation. The purpose of this effort is to develop a risk informed, performance based budget for carrying out the Navigation mission.

V-3. Civil Works Program Objectives. Table V-1 displays the Navigation Program objectives and Performance Measures published in the March 2004 Civil Works Strategic Plan. The CW Strategic Plan was developed with an explicit assumption of an unconstrained resource environment to encourage an unconstrained assessment of the nation's water resources needs and potential Corps response. Preparation of the Program Year (PY) for FY 2010 Budget Request requires the recognition of a constrained budget environment and the ongoing effort to evolve better budget linked performance measures. Table V-2 displays the program objectives, performance measures and/or performance ranking and rating criteria which support and/or supplement Table V-1 program objectives and performance measures to reflect the near term realities of a constrained PY budget environment.

TABLE V-1

Navigation Objectives and Performance Measures

Program Objectives	Performance Measures
Obj.1: Invest in navigation infrastructure when the benefits exceed the costs.	- BCR (project specific measure) - Annual net benefits
Obj. 2: Support sustainable regional, basin-wide, or watershed planning and activities in partnership with others.	- Percent of projects recommended in Chief's reports that apply watershed principles
Obj. 3: Enhance Life-Cycle Infrastructure Management. Improve the reliability of water resources infrastructure using a risk informed asset management strategy.	- Percent of navigation asset inventory with recent structural/operational risk assessments, including SPRA assessments. - Percent of navigation asset inventory risk assessments that reveal a significant level of risk (including DSAC Class I, II and III projects). - Number of funded actions underway that address assets where there is a significant level of risk.
Obj. 4: Operate and manage the navigation infrastructure so as to maintain justified levels of service in terms of the availability	- Risk and Reliability: Facility Condition Assessment and Impacts

to commercial traffic of high-use navigation infrastructure (waterways, harbors, channels).	

V-4. Navigation Performance Measures.

a. Competition for Federal funds is very keen and getting tighter each year. In recent years, we have had to make very hard choices in distributing scarce Federal dollars. In a constrained funding environment, we must prioritize the many worthwhile investment opportunities and ongoing maintenance needs across the entire spectrum of projects. This means that we have to concentrate available resources on the highest priority projects in terms of reducing risk and providing optimal reliability to maximize benefits. In the Navigation program, we are directing funds primarily to those harbors and waterway systems and segments that provide the highest return from commercial navigation. The Corps' Navigation program is well established and valued, however our ability to continue to provide safe, efficient, and reliable navigation to our ports, waterways and harbors to meet the needs of current and future generations is dependent upon adequate investments. Such investments provide the necessary investigations of problems, development of solutions, timely implementation of authorized projects, reliable operation and availability of our infrastructure, preventative maintenance, facility modernization or improvement, and adequate data management information systems, which are all directed at increasing operational capabilities and efficiencies. The purpose of this budget guidance is to ensure the development of convincing rationale and justification of the budget request.

b. Accordingly, a nationwide perspective must be maintained to assure that available funding provides the greatest public benefit for the investment. The safety, security, and reliability of our existing, high performing infrastructure must be maintained; new investigations to assure high yield navigation investments are advanced; and projects that are under construction must be brought on line quickly so that benefits may be achieved as soon as possible. Coastal ports and harbors and inland navigation have been and continue to be significant contributors to the national and international movement of bulk commodities. A cursory review of the Corps' navigation assets reveals that on a nationwide basis: Over half of all inland navigation projects have or will soon exceed their original 50-year design life; our top 59 coastal ports have full project depth only 30 – 35 percent of the time, and only for one half of the channel width; a substantial portion of the bridge inventory is approaching or has exceeded its design life; and our coastal jetties and breakwaters are deteriorating. In response, the Corps must pursue an on-going program to rehabilitate, modify, or replace structures and components, and maintain channels exhibiting a deteriorating ability to meet system demands.

c. To achieve the Navigation objectives in Table V-1, the following budget strategies and performance measures are established for the PY budget development. Each of the budget strategies and measures are designed to demonstrate that each budget item makes sense and contributes to the Navigation goals and supporting objectives.

TABLE V-2 Navigation Budget Performance Measures	
Budget Strategy	**Ranking Criteria**
Keep ongoing studies or PEDs going if likely to produce recommendation for project (I) or start new phase of studies or PED (I)	Date of Agreement – executed or expected Commercial tonnage increase % reduction in delay costs Years to complete Watershed study –y/n Benefit to Cost Ratio (BCR) – PED only
Complete ongoing construction to start getting benefits of high performing navigation projects (each contract should be separate line item) (C)	BCR Other purpose outputs by BL
Initiate and complete replacements and rehabilitations (each contract should be separate line item) (C and O&M)	Inland Waterways Users Board priority Relative risk of failure BCR Years to complete
Initiate and complete dam safety assurance/ seepage control/static instability correction projects (C)	Relative risk of failure – risk compared to other Corps dams (portfolio risk assessment if available in PY) Critical loss of pool and /or navigation Other purpose outputs by BL
Operations - Assure that projects perform as designed (O&M)	Cumulative benefits Cumulative O&M costs for above benefits (over set time period)
Maintenance - Make sure projects are safe to operate (managing risk) (O&M)	Navigation channel availability Lock closures exceeding 24 hours duration due to mechanical failure – scheduled and unscheduled Condition assessment and consequences/impact Cumulative benefits Cumulative O&M costs for above benefits (over set time period)
Fund adequate data collection (Remaining Items, I, C, O&M)	Consequence of inadequate data

V-5. Budget Screening Criteria.

a. New Start Definition – See paragraph II-2.8, of EC.

b. New Phase Definition - See paragraph II-2.8, of EC.

V-6. Rating and Ranking Criteria for PY Budget Development.

a. Stakeholders' Perspectives for Funding Needs and Development of Five-Year Management Plans. From the National Navigation Performance Metrics workshops and regional stakeholders' conferences, contributions from the Stakeholders and Corps leadership were derived to help frame the Navigation program performance-based budgeting concept. The key Stakeholders' themes were reliability improvements, risk reduction, linking investments to

underpinning the national economy, durability of Navigation systems, Navigation systems responsiveness to International trade growth, and justified efficiency improvements in Navigation. To follow the "Citizen-centered" principle expressed in the President's Management Agenda, Stakeholders' perspectives must be considered, and the legitimate input should be incorporated into the Navigation budgetary process. Accordingly, each MSC, district, project manager or project management team will work with appropriate local/regional partners and stakeholders to develop a Five-Year Management Plan for their respective projects. The plans will incorporate performance based budgeting concepts and develop the future direction based on the current restricted funding environment. The plans should be comprehensive and address anticipated study, construction, operations and maintenance requirements.

b. In order to achieve the objectives shown in Table V-2, we are establishing budget increments to assure uniformity across the country in building annual budgets from the same point. Budget increments reflect the eligibility criteria described in the following paragraphs. Increment 1 will receive priority consideration for budget development. These budget increments in conjunction with the objectives and ranking criteria will go a long way to making informed and wise budgetary decisions to support our program goal.

c. Systems Approach. The system relationship of each project/segment will be considered when developing the Civil Works program. A systems approach is needed to ensure that investments are integrated into a whole that preserves or enhances performance at the system level. This approach will help to implement the goals of the Strategic Plan. Analytical perspectives should be developed for each system to help determine the mix in the PY of investments in maintenance, operations improvements, replacements and rehabilitations, new construction, planning, and design that will maximize system efficiency, safety, and reliability over time**.** For FY 10 a list of systems has been developed. See Annex C (O&M) for the list of systems. These systems will be cross-referenced to USGS Sub-Region Hydrologic Unit Codes (HUC) for budget presentation purposes.

V-7. Increments

a. **Increment 1** definitions. For definitions of increments for the Investigations and Construction accounts see Definition/Glossary section in the main EC.

(1) Investigations (for studies and preconstruction, engineering, and design). Remaining Items (R&D, data collection, PAS, etc.) – initial level will be established by HQ.

(2) Construction* (Includes: specifically authorized projects, replacement projects (those former major rehabilitation projects characterized as repairs to restore capability will be included in O&M for the PY), dam safety assurance/seepage control/static instability correction projects, and CAP projects).

* For increment 1 funding for Construction refer to the Definition/Glossary section of the main EC.

(3) Operation and Maintenance (O&M).

(a) Navigation Segments. Inland waterway operation and maintenance costs should be broken out by major waterway segment.

(b) The first increment will seek to provide the greatest benefit for the investment consistent with performance measures and sufficient to meet minimum legal responsibilities for operation, environmental compliance and safety. Subsequent increments will provide additional benefits as measured by the performance measures. All increments must document performance according to the appropriate Business Lines criteria. The last increment for each project is the capability level. Operations increments will be submitted separately from maintenance increments. This means that for some projects there will be an operation line item and a maintenance line item in the initial level and subsequent levels.

(c) For each MSC combined amount among all Business Lines for operation and maintenance for Increments 1 and 2, see Table C-2.2**.** This initial amount is for all the MSC's O&M requirements as prioritized below. Simple pro-rata allocations by district and/or project will not result in the expected performance based budget and should not be done.

(d) The philosophy is to use increment 1 as the minimum level to account for critical routine operation and maintenance activities and to use increment 2 to account for critical non-routine activities on projects. The total of Increment 1 plus Increment 2 represents the minimal program and is limited to 75% of the MSC five-year average amount shown in **Table C 2.2** by MSC. The total of Increments 1, 2, and 3 represents no more than 100% of the MSC five-year average.

(e) Additional O&M criteria. (Definition of terms will follow)

(1) Sufficient to meet minimum legal responsibilities for operation, safety and environmental compliance: examples follow

(a) Subsistence Harbors

(b) Caretaker activities

(c) Critical Harbors of Refuge

(d) Project Condition Surveys

(e) Environmental Compliance requirements

(2) Multipurpose projects when those projects are included in the minimum programs of other business lines and not a separable element

(3) Work required by treaties

(4) Removal of Aquatic Growth

(Note Surveillance of Northern Boundary Waters moved to the Flood Damage Reduction Business Line.)

b. **Initial Increment 1**. Only critical routine and critical cyclical activities can be included in this increment. These activities are required to minimally operate or maintain the project and may not provide a full service operation. Routine activities are those that have been conducted every year for at least the last five years, for example the operation of a powerhouse, or are required to meet legal mandates, environmental (ESA/Biological Opinion) requirements, authorized mitigation requirements, and historic preservation. Cyclical activities are those that are required on a regular basis, but not each year. An example of a cyclical routine activity would be projects

where dredging is needed on a regular recurring basis, but not every year, e.g. dredging is needed only every two years. Increment must be performance based and integral with a study/project with high outputs and consistent with ranking. **What is included and what is not:**

(1) Bare Bones Operations costs (locks): May not be full 24-hour operation.

(2) Bare Bones routine maintenance (locks): Would not be all maintenance needs.

(3) Critical routine minimal level of dredging at high use commercial deep draft, shallow draft and inland projects or high use segments of projects: No advanced maintenance dredging.

(4) Routine minimal level Dredging Subsistence Harbors: Does not include point of origin harbor.

(5) Routine minimal level Dredging Critical Harbors of Refuge: Does not include all Harbors of Refuge.

(6) Caretaker funding for projects or segments not expected to be funded.

(7) Critical routine maintenance of dredged material placement sites for 3 above: Does not include non-routine maintenance of dredged material placement sites.

(8) Water/Environmental Certification for critical maintenance dredging for 3 above: Does not include all certification needs.

(9) Bare Bones Project Condition Surveys (PCS) (include Low-Use): Does not include all anticipated PCS needs.

(10) Critical studies for high risk coastal structures: Does not include studies of all structures.

(11) Bare bones debris/drift removal/obstruction removal at high use ports: Does not include all anticipated removal needs.

(12) Critical routine minimal level Removal of Aquatic Growth (RAG) for high use projects: Does not include all Removal of Aquatic Growth.

(13) Critical minimum routine dam safety activities to ensure USACE meets fundamental safety standards. Includes inspections, data collection, surveys, drain cleaning, relief well maintenance, updating Emergency Action Plans, and Dam Safety training. Does not include all dam safety activities.

(14) Critical inspections, studies and routine repair for high level bridges. Does not include all bridges.

c. **O&M Increment 2.** Only critical non-routine activities may be included in this increment. Critical non-routine activities are those that must be accomplished to ensure project safety, and critical maintenance actions that are required to keep the project operating and delivering benefits. Non-routine activities are actions that are “project like” in that they are a unique action with a specific beginning and end. Examples of non-routine actions would be the replacement of

wire ropes or valves, or the repair of failing lock, dam, or bridge components. This increment can **include** major maintenance (MM) **and** rehabilitation (MR), as will fit, when combined with Increment 1 activities, within the overall limit of the 75% constraint. Each non-routine activity must be shown separately to allow individual funding decisions based on the performance metrics and must be shown in priority order by District and MSC Rank. Increment must be performance based and integral with a study/project with high outputs and consistent with ranking.

(1) Critical on-going non-routine maintenance.

(2) On-going major maintenance of high use projects or segments: could include new major maintenance.

(3) Critical non-routine maintenance of dredged material placement sites at high use commercial deep draft, shallow-draft and inland projects or high use segments of projects.

(4) Construction of Dredged Material Disposal Facilities (DMDFs) for high use commercial deep draft, shallow-draft and inland projects or high use segments of projects. These activities were formerly included in a Construction Remaining Item.

(5) Critical studies to complete Dredged Material Management Plans (DMMP) for construction of dredged material placement sites for high use commercial deep draft, shallow-draft and inland projects or high use segments of projects.

(6) On-going (studies and work) rehabilitations of high-use projects, which could include new rehabilitation projects.

(7) Critical non-routine repair for high level bridges. Does not include all bridges.

(8) Removal of Aquatic Growth for other high use projects.

(9) Other Project Condition Surveys (PCS) (include Low-Use) beyond Bare Bones annual routine level.

(10) Gate replacement /rehab study on high risk, system impacts.

(11) Critical non-routine dam safety maintenance and repairs to reduce the highest risk contributors for DSAC I and II projects.

NOTE: Items for Surveillance of Northern Boundary Waters previously included in the Navigation Business Line has been moved to the Flood Damage Reduction Business Line.

d. **O&M Increment 3.** This increment includes only critical operation and maintenance activities, both routine and non-routine, for the up to 25% above the minimal program level, that are defined by the state of the practice and are needed to sustain public safety and the expected future benefits of the project. This will generally include critical activities that qualified for Increments 1 or 2, but exceeded the 75% limit. This still may not represent full service levels. Dam Safety work items identified as DSAC 3 can be included in this increment. Preparation of reports for MM and MR can be included in this increment. MM and MR activities must have approved reports before they can be included for implementation. Each Increment 3 activity must be shown separately to allow funding decisions based on the performance metrics, and must be shown in priority order by the District and MSC Rank. Increment must be performance based and integral with a study/project with high outputs and consistent with ranking. This may include:

(1) Critical Advanced Maintenance dredging on high use projects. Does not include all advanced maintenance.

(2) Critical minimal level of dredging and operations of low-use projects that have commerce, commercial fishery, multi-agency requirements, and/or public transportation.

e. **O&M Increment 4.** This increment includes critical and non-critical operation and maintenance activities, both routine and non-routine, above critical work in Increments 1 through 3, that are defined by the state of the practice and are needed to sustain the expected future benefits of the project. In most cases, activities in this increment will support continuing the level of service that customers, stakeholders, and others have come to expect and depend-on for sustaining public safety and economic, environmental and social benefits. Multiple Increment 4 activities should be submitted that reflect the logical pieces of routine or non-routine activities beyond the 5-year average level shown in Table C 2.2. Each Increment 4 activity must be shown separately to allow funding decisions based on the performance metrics, and must be shown in priority order by the District and MSC Rank. Increment must be performance based and integral with a study/project with high outputs and consistent with ranking.

f. **O&M Increment 5**. Activities that have a high expected return on investment that enable greater levels of performance in future years should be included in this enhanced or capability Increment. Each Increment 5 activity must be shown separately to allow funding decisions based on the performance metrics, and must be shown in priority order by the District and MSC Rank. Increment must be performance based and integral with a study/project with high outputs and consistent with ranking.

V-8. Performance Based Budget Increment(s). Navigation will use five increments this PY. Add additional budget items for logical, needed increments that contribute to the program goals. Ranking will be based on ranking criteria shown in the spreadsheet Table V-4 and listed below. The basis for adding increments in terms of budget request for a project will be based on the demonstrable beneficial impact on increasing average annual net benefits by accelerating project completion, or improved performance, additional outputs or increased reliability in the PY. There are three key performance measures that will be considered: (1) reduction in years to completion, (2) increase in annual net benefits, and (3) BCR for PEDs, construction, and rehabilitations.

V-9. Risk Assessment of Navigation Assets. PY10 budget will achieve a significant milestone in USACE asset management efforts with the Navigation, Hydropower and Flood Damage Reduction business lines using a common format to address risk. Navigation assets are established under 4 groups: (1) Inland Navigation, (2) Coastal Navigation, (3) Navigation Structures including jetties, breakwaters, bank stabilization and training works and (4) Bridges. There will be five levels of Probability/Condition and five levels of Consequences/Economic Impact associated with each of the Navigation asset groups. These will be used to develop a Relative Risk Ranking Matrix shown in Table V-3. The Relative Risk Ranking Matrix values will be applied to each budget work package.

a. A risk assessment involves identifying sources of potential conditions, assessing the likelihood or confidence level that they will occur and the consequences if it does occur. Project condition classifications for budget requests shall be developed for each project/maintenance budget item in accordance with the Tables V-5, V-7, V-9, or V-11, which ever is applicable. These classifications will provide for the initial basis for capturing the true state of the infrastructure or component thereof. In addition, these classifications provide the foundation for managing USACE

infrastructure uniformly and consistently using asset management principles, systems and risk-based condition indices for operating and maintaining projects while directly embracing the Program Assessment Rating Tool initiative. It is critical that an honest, defendable assessment and evaluation of each project be made for the ranking process in order to accurately provide a snapshot of where scarce resources need to be allocated.

b. Activities, components, and projects will be evaluated for the consequences and economic impacts of failure and ranked in accordance with Tables V-6, V-8, V-10, or V-12, which ever is applicable.

c. Tables V-5 and V-6; Tables V-7 and V-8; Tables V-9 and V-10; and Tables V-11 and V-12, together form the basis of the “Relative Risk” based methodology which supports the Corps risk-based direction for making investments decisions and provide the information to populate Table V-3, Navigation Relative Risk Ranking Matrix. The “Relative Risk Ranking” values are determined from Table V-3 using both the “Probability/Condition” classification and the “Consequence/Economic Impact” category values established for each project or budget item. Note that more than one project/item can populate a box. Matrix values will be used in making informed and wise investments, minimizing risk and providing maximized benefits to the public. Ranking within each box (if required) will be determined as appropriate and based on supporting justification from the MSC for projects that appear to be “out of place” in their matrix table.

TABLE V-3 Navigation Relative Risk Ranking Matrix

Consequence	Condition	Probability/Condition Classification				
		F Failed	D Inadequate	C Probably Inadequate	B Probably Adequate	A Adequate
Consequence/Economic Impact	I	25	24	22	19	15
	II	23	21	18	14	10
	III	20	17	13	9	6
	IV	16	12	8	5	3
	V	11	7	4	2	1

High Relative Risk
Med-High Relative Risk
Medium Relative Risk
Low Relative Risk
Minimal Relative Risk

d. **Inland Navigation** Consists of Navigation Locks and channels that combine to determine system availability for movement of commercial goods.

(1) **Navigation Lock Components.** This will be based on the FEM Hierarchy currently being developed. An example is:

Lock
Lock Chamber
Air System
Gates
Infrastructure
Tow Haulage
Valves

Table V-4 Component /Activity Hierarchy

Designator	Component/Activity	Component /Activity Rank	Critical or Non Critical
Z	Backup Electrical Power system	45	NC
Q	Buildings	20	NC
AQ	Communication/IT Equip	22	NC
AF	Compressed Air generation & distr	62	NC
P	Culvert Intakes	89	NC
AL	Dam closure hoisting machinery, crane & lifting beam	74	C
X	Dam gate controls & position indicators	77	C
AH	Dam gate emerg closure & bulkheads	85	C
AI	Dam gate maint closures & bulkheads	30	NC
W	Dam gate oper equip	84	C
V	Dam gate struc & seals	125	C
R	Dam Piers/Walls	114	C
BF	Dewaterings	116	NC
B	Dredging	116	C
AS	Elevators	5	NC
AT	Fixed Cranes	7	NC
AE	HVAC	13	NC
AB	Hydraulic pumping & distr	116	C
AK	Lock closure hoisting machinery, crane & lifting beam	37	C

D	Lock Gates	111	C
C	Lock Wall	147	C
BC	Lock/Dam/Other Misc (Lighting, Esplanade, Railings, Drainage, etc…)	20	NC
A	Minimum Acceptable Operations Service Level	195	C
BE	Misc Ops	13	NC
AN	Mooring bits	66	NC
F	Mooring Cells	39	NC
BB	New Real Estate Outgrants/Disposals/Actions	10	NC
Y	Primary elec serv & distr	160	C
BD	Recreation Dredging	13	NC
T	Service Bridge	18	NC
AM	Service Bridge Crane	27	NC
S	Spillway & downstream dam features	67	C
AO	Tow Haulage System	65	NC
AG	US & DS Lock maint lock closures/bulkheads (7 items)	32	NC
E	Utility Cross-overs	67	NC
AJ	Valve Culvert maint closures & bulkheads	24	NC
L	Valves	101	C
AD	Water & sewage svc, treatment & distr	15	NC
BA	Waterway Safety Critical Signs	20	NC

Condition Assessment. Begins with a determination of which components are critical (potential to halt navigation) and which are non-critical (limited potential to halt navigation). Predicted component conditions be assessed by a review of multi-disciplined inspection reports, on-site reviews, rating criteria, and/or FEMS operations and maintenance records (when available).The predicted condition of the component is a critical factor in determining the risk of unscheduled closures. Output of the process is shown in Table V-5 below.

Table V-5 Inland Navigation Probability/Condition		
Condition Level		**Probability / Condition**
GOOD	A	ADEQUATE (Failure unlikely within budget cycle)
MODERATE	B	PROBABLY ADEQUATE (Less than 50% probability of failure within budget cycle)
POOR	C	PROBABLY INADEQUATE (Failure could occur within budget cycle)
FAILING	D	INADEQUATE (High probability for failure within budget cycle)
FAILED	F	FAILED (Already failed or failure will occur within budget cycle)

(2) **Consequences of diminished Navigation feature performance** are computed for each budget line item that could result in an unscheduled closure or diminished channel depth and/or width.

Table V-6 Inland Navigation Consequence/Economic Impact	
Consequence Level	**Consequence Description**
1	Maximum risk to mission Highest economic loss; Over 5 billion system ton-miles. *Economic level thresholds are in development.* Probable life safety impact Minimum Acceptable Operations Service Level (see definitions) Court Decree Mandated Action Shutdown of energy generation or distribution facilities for national public use

	with no alternative modes of transportation (e.g. power plants and oil distribution facilities)
2	High risk to mission No life safety impact High economic loss; Over 1billion system ton-miles. *Economic level thresholds are in development.* Diminished cost efficiency of energy generation or distribution facilities for national public use with higher cost alternative modes of transportation (e.g. power plants and oil distribution facilities)
3	Moderate risk to mission No life safety impact Moderate economic loss; Between 0.5 and 1billion system ton-miles. *Economic level thresholds are in development.*
4	Low risk to mission No life safety impact Low economic impact; Under 500 million system ton-miles. *Economic level thresholds are in development.*
5	Negligible risk to mission No life safety impact Least economic; *Economic level thresholds are in development.*

e. **Coastal Navigation** Consists of Navigation channels and the availability of the maintained depth for movement of commercial goods. The 59 coastal ports with over 10 million tons of cargo per year operated at a half width channel availability of 35% in 2006. This restriction results in tidal delays for import/exports and missed opportunities. A concentrated effort to improve the channel half-width availability will commence with a deliberate tracking program implemented to illustrate successful investment.

(1) **Condition Assessment**. Asset Management principles provide a uniform condition assessment of each component. The predicted condition of the component is a critical factor in determining the risk of unscheduled closures. Channel condition is determined from published hydrographic survey reports. The condition level is determined from Table V-7 below. The percentage listed under the probability/condition listed below refers to the half channel availability that would occur without the requested funding increment.

Table V-7
Navigation Channels and Harbors
Probability/Condition

Condition Level		**Probability / Condition**
GOOD	A	95% at Half Channel Availability at maintained Depth
MODERATE	B	75% at Half Channel Availability at maintained Depth

POOR	C	50% at Half Channel Availability at maintained Depth
FAILING	D	25% at Half Channel Availability at maintained Depth
FAILED	F	0% at Half Channel Availability at maintained Depth

(2**) Consequences of diminished Navigation feature performance**. These are computed for each budget line item that could result in diminished channel depth and/or width. Each consequence or economic impact listed below is independent of each other. For a work package to qualify for a particular consequence level it only has to satisfy only one of the listed consequences. For work packages that fit into more than one consequence level, choose the consequence level that most closely fits the work package. The consequence level is determined by Table V-8 below.

Table V-8
Navigation Channels and Harbors
Consequence/Economic Impact

Consequence Level	Consequence Description
1	Demonstrated[1] highest economic impact or >10 M Tons Imminent life safety impact Court Decree Mandated Action (to include environmental) DoD Strategic Ports Shut down of Energy Distribution Facilities with no alternate modes of transportation
2	Demonstrated[1] high economic impact or 5 - 10 M Tons Probable life safety impact Alternate modes of transportation exist for Energy Distribution Facilities, but at a higher cost than water borne transportation
3	Demonstrated[1] moderate economic impact or 1 - 5 M Tons Possible life safety impact
4	Low economic impact[1] or <1M Tons No life safety impact
5	Negligible economics (Recreation Harbors, No commercial Activity) No life safety impact.

[1] Thresholds and basis for economic impact are under development. One measure of economic impact can be demonstrated using rate savings benefits, transportation cost savings, or damages avoided.

(3) **Risk Matrix** (follows the 5x5 matrix established above)

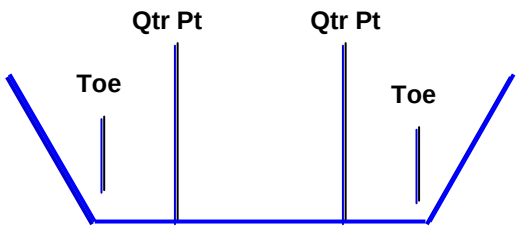
(4**) Definitions.**

(a) Channel Availability Percentage - Determined by the amount of time the channel is available/needed at maintained depths. Does not include channel availability due to tidal fluctuations.

(b) Energy Distribution - Includes impacts to harbors which serve as principal import/export ports of coal, natural gas, and other products required to produce energy.

(c) Half Channel availability - Channel availability between quarter points, see figure 1 below.

Figure 1
Channel Availability



(d) Harbor of Refuge - Section 175.400 of Title 46 (Shipping), Chapter I (Coast Guard) of the Code of Federal Regulations defines a Harbor of Refuge as "Harbor of safe refuge means a port, inlet or other body of water normally sheltered from heavy seas by land and in which a vessel can navigate and safely moor."

(e) Life Safety Impacts - Includes impacts to subsistence harbors and critical harbors of refuge.

(f) Subsistence Harbor - Communities dependent for survival on harbors that provide principal means of receiving essential goods and services for which alternative means of delivery are not practical.

f. **Structures**

(1) Components: This will be based on the FEM Hierarchy currently being developed,

(2) Condition Assessment: Asset Management principles provide a uniform condition assessment of each component. The predicted component condition is a critical factor in determining the risk of bridge closures.

Table V-9 Navigation Structures Probability/Condition		
Condition Level		**Probability / Condition**
GOOD	A	Failure to the point navigation will be measurably impacted is unlikely within budget cycle Project fully accomplishing its intended purpose
MODERATE	B	Low risk of failure to the point navigation will be measurably impacted within budget cycle
POOR	C	Medium risk of failure to the point navigation will be measurably impacted within budget cycle
FAILING	D	High risk of failure to the point navigation will be measurably impacted within budget cycle
FAILED	F	Condition severely restricts or halts navigation within budget cycle

(3) Consequences of diminished Structure performance are computed for each structure or major component.

Table V-10 Navigation Structures Consequence/Economic Impact	
Consequence Level	**Consequence Description**
1	Demonstrated highest economic impact[1] **Imminent** life safety impact Critical to safe navigation by commercial vessels at High Use Navigation Project (>10M tons) Critical to safe navigation at DoD Strategic Ports
2	Demonstrated High economic impact[1] **Probable life safety impact.** **Probable impacts to subsistence harbors/harbors of refuge.** High economic loss (5 - 10 M Tons) Probable life safety impact Alternate modes of transportation exist for Energy Distribution Facilities, but at a higher cost than water borne transportation
3	Demonstrated Moderate economic impact[1] **Possible life safety impact.** **Possible impacts to subsistence harbors/harbors of refuge.** Moderate economic loss (1 - 5 M Tons) Possible life safety impact
4	**Low economic impact[1] and no life safety impact. Little impacts to subsistence harbors/harbors of refuge.** Low economic impact (<1M Tons) No life safety impact
5	**Negligible economic and no life safety impact. No impacts to subsistence harbors/harbors of refuge.** Negligible economics (Recreation Harbors, No commercial Activity) No life safety impact.

[1] Thresholds and basis for economic impact are under development. One measure of economic impact can be demonstrated using rate savings benefit, transportation cost savings, or damages avoided.

(4) Risk Matrix (follows the 5x5 matrix established above)

(5) Definitions

g. Bridges. A substantial portion of the Corps bridge inventory is approaching or has exceeded its design life.

(1) Components: This will be based on the FEM Hierarchy currently being developed, using info from CEBIS, the USACE bridge database and input from the Districts. An example is:

Bridge

Decks
Superstructure
Substructure
Infrastructure
Channel Culverts
Scour Ratings

(2) **Condition Assessment:** Asset Management principles provide a uniform condition assessment of each component. The predicted component condition is a critical factor in determining the risk of bridge closures. Bridge condition is determined from data in the Corps of Engineers Bridge Information System (CEBIS).

Table V-11
Bridges
Probability/Condition

Condition Level		**Probability / Condition**
GOOD	A	Fully operational at design loading and capacity Bridge Condition Rating greater than 80 pts
MODERATE	B	Bridge Condition Rating greater than 65 pts
POOR	C	Operational at reduced capacity or load Bridge Condition Rating greater than 50 pts
FAILING	D	Bridge is posted for load restrictions Bridge Condition Rating greater than 35 pts
FAILED	F	Not operational Bridge Condition Rating less than 35 pts

(3) **Consequences of diminished Bridge performance** are computed for each bridge (or major component).

Table V-12 Bridges Consequence/Economic Impact	
Consequence Level	**Consequence Description**
1	Potential for loss of life on: High Use Bridges Lifeline Bridges Important Bridges Results in USACE mission failure Life Safety Concern – Potential for loss of life should the member(s) fail or not function as intended Economic Impact (?)
2	Probable life safety impact on Bridges with ADT between 2500-5000 Ability to carry traffic to maintain the required use of the route and serve the Nation's needs (commerce, defense, lifeline). Significant impact to the ability to conduct USACE missions
3	Possible life safety impact on Bridges with ADT between 1000-2500 public access bridge Minimal life safety impact Moderate impact to the ability to conduct USACE missions
4	Possible life safety impact on Bridges with ADT between 0-1000 No life safety impact Minimal impact to the ability to conduct USACE missions
5	Routine maintenance that extends the life of the bridge. Repairs that delay replacement Negligible economic impact No life safety impact.

(4) **Risk Matrix** (follows the 5x5 matrix established above)

(5) **Definitions.**

(a) Bridge Use, Average Daily Traffic (ADT); Bridges with ADT>5000 vehicles will be considered high use. Bridges will be ranked in descending order of ADT.

(b) Lifeline Bridges; Lifeline bridges will be considered high risk. In lieu of more definitive data, bridges with detour lengths greater than 10 miles will be considered lifeline routes.

(c) Important Bridges; Bridges with multiple importance (commerce, national defense, and impacts to navigation) will be considered high risk with higher ranking given to those bridges with a greater number of importance factors.

NOTE: BRIDGE CONDITION ASSESSMENT TRIAGE: a qualitative assessment will be made to identify those conditions where an in-depth analysis may yield favorable results, either in reduced scope and cost of repair and/or delay in repairs. Identify conditions where in-depth

analysis will likely be of benefit; e.g., the analysis shows that the members are adequate for the given conditions and that repairs can be delayed, reduced, or eliminated. The costs of the analysis should be offset by reduction or elimination of repair costs.

V-10. Special Considerations or Special Rating Criteria.

a. Funding for minimum fleet dredges follows the dredge. If the requirements for the minimum fleet dredge do not materialize, the funds programmed for the dredge will be reprogrammed to other minimum fleet dredging requirements.

b. Replacement and Rehabilitation Construction will be included as unique line items, not hidden under the parent project. For example, the rehabilitation items for Markland Locks and Dam will not be included in the Ohio River project maintenance items. These items migrated to O&M from Construction in the FY 07 cycle and need to remain identifiable. Rehabilitations are characterized as repairs to restore capability and are to be included in O&M.

c. Rehabilitation or replacement studies will be included as unique line items, not hidden in a general Operation line item for the parent project, marked with the appropriate Phase code.

d. Dredged Material Disposal Facilities (DMDFs) will be included as unique line items, with the appropriate Phase and Category/Class/Subclass (CCS) codes. These items migrated to O&M from Construction in the FY 07 cycle and need to remain identifiable.

e. Projects Previously Budgeted in Ecosystem Restoration Construction Account. Special projects in part or in whole previously budgeted in the Ecosystem Restoration Business Line for Construction were moved to O&M in FY 2007. These projects will be budgeted in the O&M account of the business line of the original project (navigation, flood and coastal storm damage reduction, hydropower) following the instructions in Appendices III, IV, and V. However, initially these projects and features will be entered in the environment business line, following the rules for ecosystem restoration construction. Use the O&M appropriation code and CCS, the ENR Business line code and a funding level/increment code of 7.X (for information only). It is in Construction in ENV as Increment 7s, then moves to Nav O&M, in various Increments depending on ENV input.

f. For projects responding to mandatory BiOp requirements:

(1) **Increment 7** is the amount required to maintain minimum progress on BiOp and avoid jeopardy and limited to 75% of the FY 2009 President's Budget;

(2) **Increment 7.1** is the remaining amount above the 75% limit required to maintain planned progress on BiOp and avoid jeopardy;

(3) **Increment 7.2** is the capability increment for priority items required by the BiOp.

(4) For projects not in response to mandatory BiOp requirements, follow rules for Construction.

V-11. Five Year Development Plans.

a**.** Each year the navigation asset condition assessments will be reviewed and updated to reflect work accomplished and changes to condition and therefore priority. For inland river systems a prioritized maintenance list will be developed. Based on funding assumptions such as if only Increments 1 and 2 are funded, Districts, MSC's and HQ will be able to establish O&M program glide paths. Similar process will be developed for the coastal ports and harbors and will be better defined when channel condition assessment criteria are finalized for use in the FY10 budget development process. Setting long-term performance targets to be provided.

b**.** End State Performance target: For all navigation channels the goal is to attain and maintain channel availability at the justified level of service for the target years. For Inland navigation the goal is to halt the trend of increasing navigation lock outages and maintain lock availability at the FY01-02 baseline level on a national basis.

c. Ongoing Construction funded efforts will be a consideration in overall funding, however a similar backlog of work in this program is anticipated beyond the FY14 5-year horizon.

V-12. Definitions. The following definitions refer to the O&M criteria.

a. High-Use Projects – those deep- and shallow-draft navigation projects with one million tons or greater, and those waterways with both one million tons or greater and one billion system ton-miles or greater.

b. Project Condition Surveys (PCS) – those hydrographic surveys needed to determine the program year conditions of projects in caretaker status or that are not funded separately. This work does not include testing, sampling or any other activity that should be included in a specific project funded budget package. The PCS items will be by state and will indicate the total number of projects that could be surveyed and the number of projects that will be performed as part of the line item. All PCS will not be included in a single line item.

c. Water/Environmental Certification – those activities needed to acquire certification in the PY to allow dredging to proceed that are not funded separately. This work does not include any activity that should be included in a specific project funded budget package. The Certification items will be by state and will indicate the total number of projects that could be certified and the number of certifications that will be performed as part of the line item. This will be handled like the PCS line items. All Certifications will not be included in a single line item.

d. Subsistence Harbors – those harbors that are dependent upon the navigation project as there principal means of receiving goods and services, and for which alternative means of delivery are not practicable. An example would be Tangier Island off the coast of Virginia or the Channel Islands off the California coast.

e. Critical Harbors of Refuge – those harbors that offer safe haven to boaters that represent the sole site for protection based on a public safety based regional distance criteria. Authorization as a Harbor of Refuge does not automatically make a harbor critical.

f. Caretaker Activities – There are inland navigation systems and projects that will not be funded. Some minimal level of funding will be required to place these projects in a caretaker mode. We should address concern for the public's health and safety, environmental impacts resulting from full cessation of operations and how best to address them, review legal requirements placed on that project and ensure that litigation issues are addressed in a caretaker

plan, review any unintended consequences on other waterways, and establish a communication plan to include messages, FAQ, roll out strategy, web site information, and draft media release. Caretaker status is an extremely low level of funding for minimal effort.

V-13. Low-Use Navigation Projects.

a. The performance indicators include three indicators that flag work on low-use navigation features. These are: (1) Waterway project has less than 1 billion system ton-miles of commercial cargo annually; (2) activity is for a waterway segment, upstream of which less than 1 million tons of cargo move annually; and (3) harbor projects have less than 1 million tons of commercial cargo annually. Activities meeting both criteria (1) and (2) will be included as a low-use waterway segment. Activities meeting criterion (3) will be included as a low-use harbor channel. For this sub-program, use the additional performance criteria provided in Table V-13 for assisting in the evaluation of activities and projects.

TABLE V-13
Shallow-Draft Harbors/Low-Use Segment Screens and Indicators

		SCREEN	**SCREEN**	**Indicators**	**Indicators**	**Indicators**	**Indicators**	**Indicators**
		Minimum						
Low-Use Nav channels		<1 million tons	5-Year Avg cost per ton	Supports Public Transportation	Boater Safety	BCR	Results of investment	Commercial fishery outputs
Low-Use Waterway segments		< 1 million tons on systems with < 1 billion system ton-miles	5-Year Avg cost per ton	Multipurpose Values	Public Health and Safety	Caretaker	Investment Issues	

Low-Use Harbor Channels Minimum:
Supports public transportation (ferries, tour boats);
Ensures boater safety (inlet dredging to reduce breaking wave hazards);
Project costs yield outputs / benefits exceeding costs;
Purpose should reflect results of investment (so what).
Supports some commercial fishery output;

Low-Use Waterway Segments Minimum:
Compute BCR based on transportation savings (average tons per year table);
Supports other business line purposes (flood damage reduction, recreation, environmental, water supply, etc.);
Port investment status (recent or planned port expansion/investments);
Commercial tonnage trends upward;
Ensures basic public health and safety;
Caretaker costs for non-budgeted segments.

b. **Navigation System Funding Needs.** See the discussion for O&M Systems in Annex C (O&M). Operation and Maintenance projects including Navigation projects will be combined in systems. For example, the South Oregon Coast Ports will be combined as appropriate in one or more of the O&M Systems. The linkage of individual projects in a systems evaluation must be done in a rational way. This is not a gambit to get additional funds for projects that do not merit it.

V-14. Joint Costs. See Annex C, Paragraph C-2.3.b. for Joint Activities - Joint Costs. All Joint costs will be budgeted under the Hydropower Business Line.

V-15. Watershed Studies. Watershed studies are multi-objective/multipurpose and encompass a relatively large geographic area. As a minimum, the study area must encompass the region of an 8 digit HUC. Following the reconnaissance study, a study may proceed as a watershed assessment using 75-25 cost-sharing (leading to a watershed management plan) in accordance with Sec.729 or as a feasibility study accomplished in a watershed context in accordance with the standard feasibility study process and 50-50 cost-sharing when implementation of a Corps project is anticipated.

The key attributes of a watershed assessment, leading to a watershed management plan are as follows.

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

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

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

d. Leveraging resources, including cost shared collaboration, and integrating programs and activities within and among Civil Works programs, and with other Federal, tribal state and non-governmental organizations, are critical factors.

V-16. Navigation Criteria Matrix. ADDRESS THE RISK MATRIX RESULT Below are the data elements and definitions for the embedded Navigation Criteria Matrix (Excel worksheet). These definitions for individual data elements are also in the “Definitions” tab of the embedded worksheet.

a. Note that dollars amounts should be in thousands ($000), **EXCEPT** columns **27, BUD REQ - FED** and **30, BUD REQ - IWTF**. Waterborne Commerce data should also be in thousands, but this data are already rounded to thousands in OMBIL and Waterborne Commerce data sources.

b. Unique Entries. Fields marked with an * are expected to be different for each increment amount. It would be expected that additional funds would show improvement in appropriate performance indicators. Other items would be the same for the same CWIS numbers *and hopefully will populate automatically.*

c. Criteria Matrix Data Elements and Definitions.

Col #. Column Title: Definition.

(1) **BUSINESS LINE:** Common data field for P2 OFA.

(2) **EROC:** Common data field for P2 OFA.

(3) **MSC:** Common data field for P2 OFA.

(4) **DIS:** Common data field for P2 OFA..

(5) **AP ABBREV:** Common data field for P2 OFA.

(6) **CW TYPE OF FUNDING:** Common data field for P2 OFA.

(7) **PROGRAM CODE**: Common data field for P2 OFA. Refer to Definition/Glossary section.

(8) **P2 PROJECT NUMBER:** Common data field for P2 OFA.

(9) **BUDGET ITEM ID*:** Common data field for P2 OFA.

(10) **FUNDING INCREMENT*:** Common data field for P2 OFA.

(11) **DIS RANK*:** Common data field for P2 OFA.

(12) **MSC RANK*:** Common data field for P2 OFA..

(13) **HQ RANK*:** Common data field for P2 OFA. Will be completed by HQ.

(14) **ARMY RANK*:** Common data field for P2 OFA. Will be completed by HQ.

(15) **PRESIDENT BUDGET RANK*:** Common data field for P2 OFA. Will be completed by HQ.

(16) **PHASE*:** Common data field for P2 OFA. Refer to **Table 3** contained in the main EC.

(17) **PHASE STATUS*:** Common data field for P2 OFA.

(18) **PHASE COMPL*:** Required for all items in all accounts. The fiscal year the phase for which funds are being requested is scheduled to complete. The Reconnaissance phase ends with execution of a Feasibility Cost Sharing Agreement, or a report recommending no Federal action. For FY 2010 budget development, use the date of the Division Engineer's Transmittal of the report to HQ as the end of the Feasibility phase. The PED phase ends with completion of first set of plans and specifications and execution of the Project Cooperation Agreement/Project Partnership Agreement (PCA/PPA). Construction completion is defined as physical completion of the project and would not include follow-on post-construction monitoring. The date entered for each of multiple entries for a project/separable element should be determined based on the assumption that no subsequent work packages for the project/separable element will be funded. For items in the O&M account, enter the PY unless the requested funds are scheduled to be carried over.

(19) **PROGRAM NAME:** Common data field for P2 OFA.

(20) P2 **PROJECT NAME:** Common data field for P2 OFA.

(21) **SYSTEM CODE:** Common data field for P2 OFA. See Annex C (O&M) for list of designated systems and codes.

(22) **BASIN CODE:** Common data field for P2 OFA. Enter the 4 digit USGS HUC sub-basin code for the increment request - http://water.usgs.gov/nawqa/sparrow/wrr97/geograp/geograp.html.

(23) **STATE:** Common data field for P2 OFA.

(24) **CONTRACT TYPE:** Common data field for P2 OFA.

(25) **CURRENT BUDGET – FEDERAL:** Common data field for P2 OFA.

(26) **CURRENT BUDGET INF ADJ – FEDERAL:** Common data field for P2 OFA.

(27) **FEDERAL (CORPS) BUDGET REQUEST*:** Common data field for P2 OFA.

(28) **CURRENT BUDGET – IWTF:** IWTF amount.

(29) **CURRENT BUDGET INF ADJ – IWTF:** IWTF amount inflation adjusted.

(30) **BUD REQ - IWTF*:** The Inland Waterways Trust Fund amount requested for this increment; for C the sum of all Federal (Corps) and IWTF increments for this CWIS will be its capability. Each increment should provide measurable positive contributions to the applicable business line performance measures.

(31) **AMOUNT NEXT CONTRACT*:** Required for all items in Construction. Provide the total amount of the next new contract. Enter the total value of the contract in thousands

(32) **CONTINUING CONTRACT EARNING*:** Required for all continuing contracts, including both “true” and “special” continuing contracts. Provide the PY earnings for all continuing contracts continuing from the previous year. This number will change as additional items are included in the budget request for an individual continuing contract. Enter NA if this line item is not a Continuing Contract.

(33) **CONTINUING CONTRACT VALUE:** Required for all continuing contracts including both “true” and “special” continuing contracts. Enter the total value of the contract in thousands. Enter NA if this line item is not a Continuing Contract.

(34) **CONTINUING CONTRACT AMOUNT APPLIED THROUGH PY-1:** Required for all continuing contracts including both “true” and “special” continuing contracts. Enter the amount in thousands. This should be zero for a continuing contract initiating in FY 2009. Enter NA if this line item is not a Continuing Contract.

(35) **LAST YEAR BUDGETED:** Enter the last fiscal year this study or project had funds included in the President’s Budget. Funds must have been in the final President’s Budget, not just the District’s request.

(36) **LAST AMOUNT BUDGETED:** Enter the amount included for this study or project in the President's Budget indicated in "LAST YEAR BUDGETED" entry.

(37) **LAST YEAR APPROPRIATED:** Enter the last fiscal year this study or project was appropriated funds (conference report).

(38) **LAST AMOUNT APPROPRIATED:** Enter the appropriated amount (conference report amount) for this study or project contained in the appropriation indicated in "LAST YEAR FUNDS APPROPRIATED" entry.

(39) **TOT PROJ COST:** The Total Project Cost (TPC) includes the Federal and non-Federal costs of PED and Construction. During the Reconnaissance and Feasibility Phases use the estimate being developed for use in the appropriate report (needed for order of magnitude evaluations). Subsequently, the figure is to include all Federal and non-Federal costs for PED and Construction. The cost should be consistent with the Total Project Cost.

(40) **BALANCE TO COMPLETE*:** The **PY+1** fully funded balance to complete (BTC) the study (if in reconnaissance or feasibility), construction project or separable element, Major Maintenance or Major Rehabilitation, diked disposal facility, sand mitigation, or beneficial use project. BTC should be consistent with the Total Project Cost. This number should vary with each work package in the budget for each specific project (the balance to complete will decrease with each successive work package).

(41) **LAST YEAR CONTRUCTION FUNDS WILL BE REQUESTED*:** Last year funds (other than O&M) will be required. This includes authorized monitoring/adaptive management funded in the construction account.

(42) **FCSA Date:** The actual or scheduled date of the FCSA. If increment request is to accelerate phase, this date should change from initial one.

(43) **PED Date:** The actual or scheduled date of the PED Agreement. If increment request is to accelerate phase, this date should change from initial one.

(44) **PCA/PPA Date:** The actual or scheduled date of the PCA/PPA. If increment request is to accelerate phase, this date should change from initial one.

(45) **HW TYPE:** Navigation Activity, Harbor or Waterway Type. SD=Shallow-Draft Harbor; LSD=low use Shallow-Draft Harbor; DD=Deep-Draft Harbor; LDD=low use Deep-Draft Harbor; WW=Waterway; LWW=low use Waterway; PCS=Project Condition Surveys; SNW=Surveillance of Northern Boundary Waters; RAG=Removal of Aquatic Growth; RSM=Regional Sediment Management.

(46) **HMTF (Y/N):** For all navigation projects, indicate if navigation costs for this project are eligible for reimbursement from the HMTF, Yes or No.

(47) **HW TYPE USE CODE – CARETAKER (Y/N):** Use Code for Navigation Activity, Harbor or Waterway Type. Required for projects/items that are Low Use (LSD, LDD, LWW). Indicate Yes or No for Caretaker. A brief explanation should be provided in the Remarks Column.

(48) **HW TYPE USE CODE – SUBSISTENCE HBR (Y/N):** Use Code for Navigation Activity, Harbor or Waterway Type. Required for projects/items that are Low Use (LSD, LDD,

LWW). Indicate Yes or No for Subsistence Harbor**.** A brief explanation should be provided in the Remarks Column.

(49) **HW TYPE USE CODE – CRITICAL HBR OF REFUGE:** Use Code for Navigation Activity, Harbor or Waterway Type. Required for projects/items that are Low Use (LSD, LDD, LWW). Indicate Yes or No for Critical Harbor of Refuge. A brief explanation should be provided in the Remarks Column.

(50) **HW TYPE USE CODE – SAFETY (Y/N):** Use Code for Navigation Activity, Harbor or Waterway Type. Required for projects/items that are Low Use (LSD, LDD, LWW). Indicate Yes or No for Safety (Search & Rescue, USCG Station, etc.)**.** A brief explanation should be provided in the Remarks Column.

(51) **HW TYPE USE CODE – NATIONAL SECURITY (Y/N):** Use Code for Navigation Activity, Harbor or Waterway Type. Required for projects/items that are Low Use (LSD, LDD, LWW). Indicate Yes or No for National Security.. A brief explanation should be provided in the Remarks Column.

(52) **HW TYPE USE CODE – PUBLIC TRANSPO (Y/N):** Use Code for Navigation Activity, Harbor or Waterway Type. Required for projects/items that are Low Use (LSD, LDD, LWW). Indicate Yes or No for Ferry (Public) Transportation. A brief explanation should be provided in the Remarks Column.

(53) **DSAC CLASSIFICATION**: Each dam safety project, assurance study or group of similar studies for the same project should be identified with the appropriate phase code and the Dam Safety Action Classification code (DSAC = 1, 2, 3, 4, or 5)

(54) **DAM SAFETY IMPACTS:** For dam safety/seepage project - what other purposes (by Business Line) would be impacted if there was a failure. Maximum of 160 characters.

(55) **LEGAL MANDATE:** Special legal mandates – Y or N and then describe in remarks.

(56) **SAFETY ISSUES:** Safety issues – Y or N and then describe in remarks.

(57) **COMPONENT/ACTIVITY DESIGNATOR*:** Component/activity designator from FEM hierarchy (see the Navigation Appendix Para. V-9). Required only for navigation locks and dams.

(58) **CRITICAL/NON-CRITICAL*: "C" for "Critical"/"NC" for "Non-Critical"** (see the Navigation Appendix Para. V-9). Required only for navigation locks and dams.

(59) **COMPONENT/ACTIVITY RANK*:** Relative importance of the component or activity to the functioning of the project (see the Navigation Appendix Para. V-9) Required only for navigation locks and dams.

(60) **PROBABILITY CONDITION RATING*:** Risk assessment value (A, B, C, D, or F) of component, activity, or project as determined by the applicable Tables V-5, V-7, V-9, or V-11 (see the Navigation Appendix Para. V-9)

(61) **CONSEQUENCE/ECONOMIC IMPACT***: The consequence or economic impact value (1-5) of a component, activity, or project failing as determined by the applicable Tables V-6, V-8, V-10, or V-12. (see the Navigation Appendix Para. V-9)

(62) **RELATIVE RISK RANKING*:** The Relative Risk assessments performed by the Districts for maintenance items (see the Navigation Appendix Para. V-9) provide the input for Table V-3. The resultant "Relative Risk Ranking" from Table V-3 should be inserted in this column.

(63) **LATEST COM TON:** The commercial tons for the latest available year from OMBIL (Waterborne Commerce data).

(64) **5-YR AVG COM TON:** The last five-year average annual commercial tons from OMBIL (Waterborne Commerce data).

(65) **LATEST SYS TON MILES:** The system or trip ton-miles for the latest available year from OMBIL (Waterborne Commerce data).

(66) **5-YR AVG SYS TON MILES:** The last five-year average annual system or trip ton-miles from OMBIL (Waterborne Commerce data).

(67) **LATEST TON MILES:** The ton-miles for the latest available year from OMBIL (Waterborne Commerce data).

(68) **5-YR AVG TON MILES:** The last five-year average annual ton-miles from OMBIL (Waterborne Commerce data).

(69) **5-YR AVG $/TON:** Five-year average total O&M costs divided by five-year average annual commercial tons for the same period from OMBIL for Waterborne Commerce and O&M financial data.

(70) **TOTAL VALUE OF FOREIGN CARGO:** Total dollar value of the foreign cargo for the project at current price levels. Available from Waterborne Commerce data.

(71) **VALUE OF EXPORT CARGO:** Dollar value of the export cargo for the project at current price levels. Available from Waterborne Commerce data.

(72) **% TIME AVAIL*:** Percentage of time project is available to perform as designed with limits from deferred maintenance, dam safety issues, etc. It would be expected that additional increment requests would show improvement in appropriate performance indicators. Explain in Remarks.

(73) **BCR:** The project's benefit cost ratio at 7% and current price levels.

(74) **RBRCR:** The project's remaining benefits - remaining costs ratio at 7% and current price levels. See Annex B for discussion.

(75) **BCR – Applicable:** The project's benefit cost ratio at the applicable interest rate.

(76) **RBRCR – Applicable:** The project's remaining benefits - remaining costs ratio at applicable rate.

(77) **APPLICABLE RATE:** The applicable interest rate - See main EC paragraph **10.**

(78) **BCR – Current:** The project's benefit cost ratio at the current interest rate. See main EC paragraph **10.**

(79) **RBRCR – Current:** The project's remaining benefits - remaining costs ratio at current rate. See main EC paragraph **10.**

(80) **PROJECT DESCRIPTION:** Main features/Navigation segment, 50 words or less. Complete sentences are not required. Maximum of 250 characters.

(81) **BUDGET ITEM JUSTIFICATION*:** State proposed use of the increment amount (be as specific as possible) and what the increment amount accomplishes (what are we getting for this amount of $). Key points to be able to distinguish from other increment or other projects. For dam safety items (inspections and studies), the "Purpose" field should include what is being studied, the expected report completion date, if not completing in the PY, the additional $ needed to complete, and estimated cost (magnitude) of the construction cost. It would be expected that additional increment requests would show improvement in appropriate performance indicators. Maximum of 160 characters.

(82) **CONSEQUENCES*:** What is penalty (consequence) if not funded this PY - increment amount needed to comply with safety, settlements, loss of service, structural failure, etc. It would be expected that additional increment requests would show improvement in appropriate performance indicators. Maximum of 160 characters.

(83) **REMARKS*:** Additional critical information to support increment amount that is not in the other fields and what is called for from other fields. Use to explain District & Division ranks, lack of data in required fields, special legal or other requirements, safety issues, etc. Provide rationale to support funding of O&M Major Maintenance Items under C. Document infrastructure at significant risk to justify budget requests. It would be expected that additional increment requests would show improvement in appropriate performance indicators. For projects with an N/A in any field, such as BCR and RBRCR, explain why they are not required Maximum of 600 characters.

(84) **REMARKS (CONTD)*:** Additional critical information to support increment amount that does not fit in REMARKS column (81).

(85) **OTHER PURPOSES:** The other outputs provided by the project. N=Navigation; F=Flood Damage Reduction; H=Hydropower; E=Environmental; R=Recreation; W=Water Supply.

(86) **FUNDING OF OTHER PURPOSES:** Displays the budget request amounts entered for other business lines for the project. System generated, no entry required.

(87) **EXTERNAL PEER REVIEW:** Enter the amount in thousands included in the Budget Request – Fed that is required to fund the Federal cost of external peer review in accordance to WRDA 2007, Section 2034.

(88) **WATERSHED STUDY:** Is this a watershed study or project? Y or N based on criteria in EC.

(89) **WATERSHED DOCUMENTATION:** If Column 88 is “Y”, then provide a narrative documentation of why the study is a Watershed Study (400 characters). The Phase Code in Column 16 should be “WA”.

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RECREATION
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APPENDIX VI

Recreation

VI-1. **Background.** The Corps is the nation's leading Federal provider of outdoor recreation opportunities. As the host of more than 375 million visitors a year, the Corps plays a major role in meeting the outdoor recreation needs of Americans. Corps recreation projects contribute economically and socially to the communities in which they are located, providing a natural resource setting for visitors to reap the benefits to their physical, mental and spiritual health from engaging in outdoor activities.

VI-2. **Recreation Mission and Goal.** The Corps Natural Resources Management (NRM) mission statement is:

> "The Army Corps of Engineers is the steward of the lands and waters at Corps water resources projects. Its Natural Resources Management Mission is to manage and conserve those natural resources, consistent with ecosystem management principles, <u>while providing quality outdoor public recreation experiences, to serve the needs of present and future generations</u>. In all aspects of natural and cultural resources management, the Corps promotes awareness of environmental values and adheres to sound environmental stewardship, protection, and compliance and restoration practices. The Corps manages for long-term public access to, and use of, the natural resources in cooperation with other Federal, State, and local agencies as well as the private sector. <u>The Corps integrates the management of diverse natural resources components such as fish, wildlife, forests, wetlands, grasslands, soil, air, and water with the provision of public recreation opportunities. The Corps conserves natural resources and provides public recreation opportunities that contribute to the quality of American life".</u>

a. The NRM mission statement recognizes the strong interrelationship between the health of the natural resources and the quality of the recreation experience provided. The portions of the above mission statement that are directly related to recreation are underlined. Our recreation program goal is to enhance the quality of American life by providing benefits to individuals, communities, the national economy and the environment.

b. Table VI-1 immediately below displays the Recreation Program Objectives and Performance Measures published in the March 2004 Civil Works Strategic Plan. Preparation of the FY10 Budget Request requires the recognition of a constrained budget environment and the ongoing effort to improve the linkage of budget to performance. The performance measures which support and/or supplement Table VI-1 program objectives and performance measures to reflect the near term realities of a constrained FY10 budget environment are described in paragraph VI-15 below.

TABLE VI-1
Strategic Plan Objectives and Performance Measures

Program Objectives	Performance Measures
Provide justified outdoor recreation opportunities in an effective and efficient manner at Corps operated water resources projects.	National Economic Development Benefit Benefits/Costs Ratio Cost Recovery
Provide continued outdoor recreation opportunities to meet the needs of present and future generations.	Park Capacity Customer Satisfaction (only used to identify facility/service improvement needs)
Provide a safe and healthful outdoor recreation environment for Corps customers	Visitor Health and Safety Services Facility Condition Index; Facility Service

VI-3. **Recreation Budget Goals and Objectives.** Although the Corps recreation program is well established, stable and well regarded, our ability to continue to provide high quality recreation experiences to meet the needs of current and future generations is jeopardized by constrained funding. Years of sub-optimal funding have precluded preventative maintenance or facility modernization or improvement, including improvements to increase operational efficiencies, resulting in an aging and outdated recreation infrastructure.

a. Accordingly, a concentrated nationwide emphasis must be placed on assuring available funding provides the optimum nationwide recreation program for the nationwide investment. To achieve this goal, the following recreation budget objectives are established for the FY10 program.

(1) Initial investments must provide equivalent public opportunity, at consistent service levels, across the Corps national recreation program.

(2) Initial and incremental investments must reflect the results of operational efficiencies analyses and implementation.

(3) Existing recreation infrastructure critical to meeting current and future needs must be maintained and protected.

(4) Recreation opportunities must provide a safe, healthful and accessible experience.

(5) All recreation opportunities must be provided consistent with environmentally sustainable development and environmentally friendly business practices for the benefit of future generations.

b. In order to achieve the above objectives, two tasks must be accomplished:

(1) We must conscientiously and objectively determine equivalent initial funding levels, to assure all projects across the country are starting annual budgets from the same point.

(2) We must establish a system of performance measures that will permit objective evaluation of various investment choices to assure incremental investments above initial provide the greatest benefit for the investment, while maintaining consistent public service levels. The FY06 through FY 09 budgets provided a great deal of information about the performance of alternative investment choices. In the FY10 budget, we must continue to improve our investment choices, using refined performance measures to improve data accuracy.

c. Once an appropriate and equivalent initial funding level has been established and a system of effective performance measures is implemented, informed and wise decisions can be made to meet our goal of providing the greatest public benefit for the nationwide budgetary investment.

VI-4. **FY10 Recreation Budget Focus Areas.** The following focus areas should be considered when developing incremental recreation budget packages for FY10.

a. Critical Maintenance (non-routine). Critical non-routine maintenance is defined as maintenance that if not performed in the budget year will result in the loss of a necessary component of the recreation infrastructure. Work packages to fund critical non-routine maintenance should be identified with an indicator in Rec-BEST so the total program requirement can be quantified. Critical non-routine maintenance items may be new items in FY10. It is not required that they were identified in the previous year's budget to qualify as critical. Identifying a work package as critical non-routine maintenance indicates this is higher priority work than routine O&M for the recreation program. All critical routine

activities should be included in the initial package and entered in P-2 as increment 1 package (see paragraph V1-10 below).

b. Accessibility Improvements for Persons With Disabilities. The Corps has a legal obligation to provide accessibility to public recreation sites, facilities and programs in accordance with statutory requirements and codified guidelines. Non-compliance with these requirements and guidelines constitutes a civil rights violation. Accordingly, improvements required to meet these requirements and guidelines are a priority for funding. Funds allocated in the President's budget for this purpose and subsequently appropriated must be expended for this purpose. Improvements required to meet statutory requirements and codified guidelines, and for which budget packages should be developed, include:

(1) Improvements to facilities constructed after 1984, when the Uniform Federal Accessibility Standards (UFAS) were published, which do not meet UFAS guidelines. UFAS guidelines may be found at http://www.access-board.gov/ufas/ufas-html/ufas.htm. Accessibility improvements made to such facilities (i.e. those constructed after 1984 which do not meet UFAS guidelines) must comply with current guidelines, which may be found at http://www.access-board.gov/ada-aba/final.htm.

(2) Improvements required to make recreation programs, i.e. camping, picnicking, boating, swimming, etc., accessible. For the purposes of budgeting Corps recreation program requirements, a program is defined on a project basis. Therefore, if a camping program is available at recreation areas operated by the Corps on a water resources development project, at least one camping opportunity (campsite, plus associated facilities, plus the route between associated facilities) on the project must be accessible. Improvements required to meet program accessibility requirements must comply with current guidelines.

c. Efficiency Improvements**.** Investments in efficiency improvements to support and maintain current performance levels at justifiable Initial cost optimizes the nationwide recreation program for the nationwide investment. Work packages should be developed to fund efficiency improvements that will result in decreased future O&M costs.

d. Recreation Area Modernization**.** The modernization of recreation sites and facilities involves updating existing facilities to meet current guidelines and user needs, as well as modifying facilities and services to improve efficiency and effectiveness. Ongoing identification of modernization needs and budgeting to accomplish the most critical of these needs is important to the Corps overall, long-term management of its recreation program. Modernization activities will be funded through O&M work packages above initial. A new Work Category Code (WCC), 61515, was developed in FY07 to facilitate submittal and evaluation of modernization work. All costs for the modernization, replacement or additions for modernization to recreation facilities and structures such as trails, campgrounds, picnic areas, restrooms, showers, boat ramps, parking areas, roads, grounds, utilities associated with recreation use, buildings used for recreation purposes should be included in WCC 61515. Work using this WCC must meet current standards as identified in EM 1110-1-400 and should be bundled in logical packages that assure the biggest return on investment can be realized in the shortest amount of time. Only those packages that make "good business sense" should be included. Packages using this WCC cannot be included in the Initial funding level.

VI-5. **Recreation Maintenance.** See Annex C (O&M) for Operation and Maintenance Unfunded Requirements Reporting Requirements. It is important to identify and budget for all justified unfunded maintenance requirements for recreation within capability for the budget year. (Capability is described in main section of the EC). Work packages should be developed in Improvement Increment to address all requirements for unfunded maintenance. Unfunded maintenance is defined as those unfunded maintenance work items that are required and should have been funded in the previous year (FY09) to provide reasonable assurance that project performance goals can continue to be met and that undue risk

of failure is avoided. If these maintenance requirements are not identified, we have an incomplete understanding of our total budgetary requirements, regardless of what is or is not funded. Recreation maintenance may be identified further as critical in accordance with paragraph VI – 4(a) above. An indicator code for critical maintenance activities is provided in Rec-BEST.

VI-6. **Increased Recreation Fee Collection.** Efforts continue to obtain legislative authority for the Corps to retain all or a portion of the recreation use fees collected, with the primary objective of funding maintenance and improvement of recreation sites and facilities. Accordingly, in conjunction with the FY10 budget development, efforts should be made to identify opportunities to enhance fee collection as appropriate and in accordance with existing policy and guidance. Implementation guidance will be developed for any additional authorities obtained. Our success in increasing recreation use fee collection will impact directly our success in meeting goals related to the Cost Recovery performance measure discussed in paragraph VI-15 below.

VI-7. **Recreation Program Performance Improvement Initiative (RPPII).** The RPPII is currently under development and is designed as a multi-year long-range plan to address the Recreation Business Line challenges in providing recreation opportunities at a consistent, affordable and acceptable level as defined by performance metrics. The RPPII will establish a process to evaluate the current performance of recreation areas and projects, identify appropriate strategies to improve performance, and monitor and measure success. Products developed through the RPPII will provide assistance to Operations Project Managers in developing and justifying appropriate budget proposals, as well as in executing the appropriated program. Information about the RPPII may be found at http://corpslakes.usace.army.mil/employees/rppii/rppii.html.

VI-8. **Visitor Centers.** Two Work Category Codes (WCC's) were developed for the FY07 budget for Visitor Center Operations, WCC 60514, and Visitor Center Maintenance, WCC 61514. Visitor Center costs previously (prior to FY07) included under WCC's 60511 and 61511 respectively should now be included in the new WCC's. This includes costs for officially designated visitor centers. For maintaining and operating information centers that are not designated as visitor centers this year, the necessary costs should be included in the Initial Increment using WCC's 60511 and/or 61511. This should not result in an increase in total budget. The sum of 60511 and 60514 should not be more than the previous total for 60511. The sum of 61511 and 61514 should not exceed that previously budgeted for 61511. The new WCC's simply allow us to distinguish between costs for visitor centers and costs for other recreation sites and facilities. The descriptions for the new Visitor Center WCC's are:

a. WCC 60514: Includes all costs associated with the operation of visitor centers, including personnel costs; custodial services; snow, ice and debris removal; lawn and shrubbery maintenance; landscaping; grounds; tour operator services; utilities and supplies; exhibits (interior and exterior); supporting costs of cooperating associations, heating and cooling systems, audio visual programs, building material and equipment costs.

b. WCC 61514: Includes all costs for the maintenance and repair, replacement, additions and efficiency improvements to, or retirement of, visitor center buildings, displays, audiovisual systems, heating and cooling systems, landscaping, grounds, exhibits and utilities.

VI-9. **Customer Comment Card Program.** The customer comment card program is administered by Corps project staff to obtain feedback systematically from visitors on the quality of facilities and services at Corps managed recreation areas. The written comments offered by visitors can be especially helpful for identifying the facility and service improvements that are most needed at recreation areas. Accordingly, visitor comments obtained through the comment card program should be considered when developing recreation program budget packages. Visitor comments that demonstrate the need for a particular budget package should be referenced in the budget package description.

VI–10. **Definitions of Funding Increments.** There are three funding increments for the recreation business line: the Initial funding level for each project is for the most critical, time-sensitive, least-cost activities to meet the MSC minimal program dollar limit of 75% of the 5-year average of O&M President's budget by MSC; the Sustaining increment will include the remaining costs to serve existing visitors at the acceptable service levels not accommodated in Initial, and the Improvement increment will include most critical non-routine maintenance activities and all facility improvements and enhancements, modernization, and new facility construction.

To maintain the integrity of the Recreation budget development process, the structure of increments in Rec-BEST is fundamentally the same as the FY09 process. However, to achieve consistency with the overall O&M program structure and to meet the requirement for entering budget information into P-2, the Rec-BEST budget increment definitions have been modified and should be matched in P-2 according to Table VI-2. That is, the Initial increment will be entered in P-2 as Increment 1; the sustaining increment that is within 25% of the 5-year average of the OM President's budget by MSC will be entered into P-2 as Increment *3;* the remaining sustaining increment will be entered into P-2 as increment 4; and all the improvement packages will be entered in P-2 as increment 5 (including critical non-routine maintenance packages, which will be identified in Rec-BEST but entered in P-2 as increment *5* as well). There is no change on the BEST_ID's. The BEST_ID numbers should still be entered into P-2 as the way they are in Rec-BEST.

*

TABLE VI-2
Budget Increments Reference Table between Rec-BEST and P-2

Rec-BEST Increment	P-2 Increment
Initial Increment: Critical, time-sensitive, least-cost activities to meet the MSC initial program dollar limit of 75% of the 5-year average of O&M President's budget by MSC	**Increment 1:** **C**ritical routine *and critical non-routine* activities; within 75% of MSC amount in Table C 2.2
Not Applicable in Rec-BEST	Do not Use **Increment *2*** *Note: Include both critical routine and critical non-routine work in P-2 Increment 1- up to MSC initial program limit*
Sustaining Increment: Additional costs to serve 100% existing visitors at the acceptable service levels not accommodated in Initial Increment. *(Note that this increment will be mathematically [automatically done in the Rec-BEST P-2 summary page] split into two P-2 increments for P-2 data entry purpose).*The sum of your Initial and Sustaining increments should identify your total budget requirement to serve 100% of existing visitors at acceptable service levels.	**Increment 3:** Support continuing the acceptable level of service, for the 25% above the initial program of MSC amount in Table C 2.2
	Increment 4: Support continuing the acceptable level of service, above the 100% of MSC amount in Table C 2.2
Improvement Increment: For all other packages - critical non-routine maintenance activities and all facility improvements and enhancements, modernization, and new facility construction	**Increment 5:** Activities enable greater levels of performance in future years

VI–11. **Initial and Sustaining Program Definition.** Pursuant to the Recreation Budget Goals and Objectives established in paragraph VI.3, the following definition of Initial and sustaining increments for the Corps recreation program is established. The ***combination*** of initial and sustaining increments for recreation will not be based upon any previous year's budget, but solely based on the need to provide acceptable service levels to existing visitors. However, to achieve consistency with the overall O&M program structure and to meet the requirement for entering budget information into P-2, the initial increment will have to meet the minimal program dollar limit of 75% of the 5-year average of O&M President's budget by MSC. Budget increments above Initial must be justified by the incremental benefits to be delivered, as described by the performance measures.

a. **Initial Increment**. Operations & Maintenance and Mississippi River and Tributaries Maintenance. The Initial funding level for each project is the minimum funding for the most critical, time-sensitive, least-cost activities to meet the MSC minimal program dollar limit of 75% of the 5-year average of O&M President's budget by MSC. The parks or facilities that represent the most efficient program in serving a portion of existing visitors should be included in Initial. The less efficiently operating parks that serve the remaining visitors at acceptable levels should be included in Sustaining Increment.

b. **Sustaining Increment**. Sustaining Increment will include the minimum funding needed to provide acceptable service to the remaining of the existing visitors not accommodated in Initial. This Increment serves only the remaining visitors. It does not include any facility improvements or non-routine maintenance, other than those maintenance costs critical to provide acceptable service IN THE BUDGET YEAR, as defined in paragraph VI – 11(c) above.

NOTE: This definition will be used for budget development purposes only, to establish an equivalent platform among projects on which to build a performance based budget. This budget development guidance will not be used to determine the appropriate execution of the recreation program following appropriation of funds. Guidance to assist decision making regarding major changes in recreation program operation, to include park closures, is available elsewhere as operational guidance, not budget development guidance.

c. The definition of "acceptable service" is provided in paragraph VI.13. Care should be taken to use the service level criteria properly to assure accurate computations. "Existing recreation visitation" means visitation occurring at currently open recreation areas managed by the Corps.

d. Funding for all activities encompassed by Work Category Codes 60511, 60513, 60514, 60520, 60541, 60542, 60550, 60560, 60591, 60592, 61511 and 61514 that serve existing recreation visitation in designated recreation areas (excluding access points, overlooks, and Class E campgrounds) at acceptable service levels in the most efficient program will be included in Initial and Sustaining increments. Annual recurring costs for non-recurring work items, such as minor roof repairs, painting of comfort stations, road patching, sign replacements, exhibit repairs, etc., should be budgeted in 61511 and 61514 (for visitor centers only) in Initial and in Sustaining Increment. Maintenance requirements which are scheduled, such as roof replacement, road re-paving, renovation of comfort stations, fabrication or installation of visitor center replacement exhibits, etc. should be budgeted in 61511 and 61514 (for visitor centers only) in Improvement Increment. Only those maintenance costs essential to provide acceptable service IN THE BUDGET YEAR should be included in the Initial Increment or Sustaining Increment.

e. The minimum funding to assure the health and safety of visitors to areas outside designated recreation areas, including access points, overlooks, Class E campgrounds and dispersed areas will be included in Initial. This includes maintenance of buoys and lake-wide navigation aids necessary to assure the health and safety of visitors.

f. For WCC 60550, Real Estate Management for the Recreation Function, the minimum funding necessary to perform only the most basic oversight of existing recreation outgrants will be included in Initial and Sustaining. Costs to accomplish real estate activities required to issue a new recreation outgrant should be included in Initial also, if the new outgrant will result improved program efficiency, i.e. public recreation opportunities will be provided at less cost to the government. WCC 61550 and WCC 61510 have been revised to reflect only those real estate activities directly related to the recreation program.

g. For recreation projects with no Corps operated recreation areas (PL 89-72 projects and/or projects where all recreation areas are outgranted), the minimum costs to provide necessary oversight of existing recreation outgrants will be included in Initial in WCC 60550. Minimum costs to fulfill Corps requirements for visitor health and safety should be included in Initial in WCC 60511. (Costs for non-routine maintenance, i.e. facility replacement and for minimum health and safety should be included in Improvement Increment.)

h. For WCC 60560, Environmental Compliance Management for the Recreation Function, the work required to comply with environmental protection mandates (i.e., laws, executive orders and court orders) will be included in Initial. Include the amount of funds required to meet minimum environmental compliance and safety standards and to satisfy other legally binding requirements.

i. For Construction and MR&T construction, see Annex B. In FY10, there will be no work packages developed for recreation in Investigations or MR&T studies.

VI-12. **Increments Above Initial and Sustaining.** The Recreation program will have 1 budget increment above Initial and Sustaining.

a. **Improvement Increment**. This Increment will include most non-routine maintenance activities and all facility improvements and enhancements, modernization, and new facility construction. No WCC's for Operations Features may be used in Improvement Increment. Budget packages submitted in Improvement Increment should focus on a primary purpose which can be identified by the appropriate indicator as defined in paragraph VI – 14. Inappropriate bundling of work items should be avoided. A detailed description of the planned work should be provided in the description field in Rec-BEST. A clear description could improve consideration of a budget package for funding. Descriptions should be clear, concise and accurately identify the work to be accomplished. Identify the risks and consequences if not funded, as well as the benefits/performance improvements, if funded. Include items such as: current conditions, deteriorated/outdated features, annual cost savings, health, safety and management issues resolved, increased revenues, improved efficiencies, and other pertinent information that quantifies the work to be accomplished. If the work package includes work that can be broken into subparts, with associated costs, the breakdown should be included in the description.

VI–13. **Service Levels**.

a. Developing our budgets using "acceptable service levels" will help us achieve more consistent public service levels across the country. Acceptable service levels protect the safety of our customers and the integrity of Government assets, as well as assure satisfactory interaction between agency staff and visitors. The guidelines provided in Table VI-3 should be used to determine requirements for acceptable service during the three consecutive peak months of project visitation in your budget submittal for camping, day use, and/or multipurpose recreation areas. Do not apply the service guidelines to access points, overlooks or Class E camp areas.

b. Acceptable service levels range from 32 – 42, with low-intensity use parks at 32 to 36, medium-intensity use parks at 35 to 39, and high-intensity use parks at 38 to 42. The range is

established based upon the use or visitor demand placed on facilities rather than the kind or degree of development in the park. A 200 site Class A campground, which has moderate occupancy on a typical summer weekend may require less service than a small day use park located near a city that gets intensive use all week long. Service levels above the target should be reduced actively through the budget process to achieve consistent public service across the Corps. You should develop your Initial and Sustained Increment budget to provide services within this range as appropriate by intensity of use level. These guidelines were adapted from those developed by the Southwestern Division, as part of their Justified Levels of Service effort. Please note that “Visitor Contacts” has been added as an element of “Visitor Assistance” below.

TABLE VI-3
Acceptable Levels of Service

Services (Peak Season)				**Current service level range**	**Target[0] Service level range**
Facility Cleaning[1]	2 days per week (4)	5 days per week (8)	Daily (10)	**0 - 10**	**2 – 10**
Facility Mowing[2]	6 in. or less 50% of time (4)	6 in. or less 75% of time (8)	6 in. or less 95% of time (10)	**0 - 10**	**2 – 10**
Visitor Assistance[3]	Ranger Patrols, Daily; Visitor Contacts Daily (3)	Ranger Patrols; Daily; Law Enforcement Agreement in Place; Visitor Contacts daily with periodic water **safety/interpretive** programs (6)	Ranger Patrols, More than once daily on weekends; Weekend law enforcement patrols; Visitor contacts daily with water **safety/interpretive** programs weekly (8)	**0 - 8**	**2 – 8**
Gate Attendant/Park Host[4]	Gate staffed on weekends only (3)	Gate staffed less than 7 days per week but always on weekends (6)	Gate staffed 7 days per week (8)	**0 - 8**	**0 – 8**
Reservations[5]	Yes (2)			**0 - 2**	**0 – 2**
Urgent Repairs[6]	Correct within 4 or more days (4)	Correct within 1-3 days (8)	Correct within 24 hrs (10)	**0 - 10**	**4 – 10**
Routine Repairs[7]	Correct within 14-30 days (2)	Correct within 5-14 days (4)	Correct within 1-4 days (6)	**0 - 6**	**2 – 6**
Grand Total				**0 - 54**	**12 - 54**

Rating	Points[8]
Below	Low Intensity Use - 0-31 Points Medium Intensity Use – 0 -34 Points High Intensity Use – 0-37 Points
Acceptable	**Low Intensity Use – 32 - 36** **Medium Intensity Use - 35 - 39** **High Intensity Use – 38 - 42**
Above	Low Intensity Use – 37 or More Medium Intensity Use – 40 or More High Intensity Use – 43 or More

0. The lower range amounts for elements listed in the Target Service Level Range Column that have a numerical value greater than zero represent the minimum acceptable service level to meet minimal public health and safety standards. One should

never submit a budget request that does not at least meet minimal public health and safety considerations. If you are currently not meeting this standard or cannot meet that standard consideration should be given to closing the area until adequate funding can be obtained to provide to provide a safe environment for our visitors. It is unacceptable to meet an acceptable service point range total score without at least meeting the minimum point totals listed for each of the 7 components of service.

1. Includes such things as cleaning of restrooms, shower/toilet buildings, vault toilets, change houses, and bath houses.
2. Includes improved mowing areas located around such things as buildings, facilities, sites, beaches, playgrounds, trail heads, multi-purpose fields/activity areas and along park roadways. Arid areas that require little or no mowing should be scored as "7".
3. A ranger patrol equals a minimum of one trip by one or more uniformed Corps rangers through a park.
4. Gate is staffed by volunteer, contractor or Corps employee. Staffed gate is person on site during 3 peak months of visitation.
5. Reservations for camp sites, shelters or other facilities.
6. "Urgent repairs" are to correct problems that render a site or park unusable or unsuitable for use. This includes such things as electric and plumbing repairs. Examples: A major water leak would be an urgent repair, but a dripping faucet would not. Replacing a stop sign would be an urgent repair. Pruning a storm damaged limb above a campsite would be an urgent repair, but pruning a broken limb in a natural area would not. Without urgent repairs, our customer cannot have full use of the site or facility. (NOTE: All deficiencies or hazards which threaten health or safety must be corrected immediately or the affected site or facility closed to public access.)
7. "Routine repairs" are repairs that should be completed in a fairly short time, but are not urgent. Routine repairs would not require an important visitor facility to be shut down if not completed. Routine repairs do not include major or periodic maintenance, unfunded maintenance, modernization activities, new construction, facility replacement or other work budgeted in Improvement Increment. Routine repairs do not include operational maintenance or services such as facility cleaning, mowing or trash pickup. Routine repairs may include non- recurring work items budgeted in 61511 such as roof patching, sign repair or replacement of damaged non-critical signs, graffiti removal, blading roads and camp pads to repair ruts and potholes, dripping faucet repair, repairing a nonfunctional hand dryer, repair of broken picnic tables, grills and fire rings, repair or replacement of damaged partitions and window screens an other non-urgent repairs to structures and facilities.
8. Use your best professional judgment supplemented with your estimate of the area's occupancy rate when determining use intensity. High Intensity Use -- an area with 100% to 75% of the sites/parking lots occupied on weekends during the peak use season; Medium Intensity Use -- an area with 75% to 25% of the sites occupied on weekends during the peak use season; Low Intensity Use -- an area with less than 25% of the sites/ parking lots occupied on weekends during the peak use season.

VI–14. **Work Package Indicators.** When developing work packages above the Initial program, Operations Project Managers should consider the goals and objectives for the recreation program and FY10 budget development, as described in this Appendix. Accordingly, the following recreation packages are suggested as appropriate and should be identified with the appropriate indicator(s) in Rec-BEST. Work packages with other purposes may be appropriate and may be included without an indicator.

a. Two sets of indicators are provided to categorize work packages. The first set describes the primary purpose of the work package. Only one of the primary purpose indicators should be applied to a single work package.

(1) Packages for non-operational, non-routine maintenance, such as road paving, roof replacement, erosion control, or utility infrastructure repairs or replacement, i.e. water or sewer systems.

(2) Packages for accessibility improvements, to accommodate persons with disabilities, including packages to fund inventory assessments. A sub-indicator is provided to indicate the budget package corrects a legal deficiency resulting in a civil rights violation, as defined in paragraph VI – 4(d).

NOTE: Any facility construction or major renovation must meet current standards. Accordingly, any budget package to construct or renovate facilities should incorporate the costs to meet accessibility requirements, as it would include costs to meet safety requirements or other engineering guidelines. The

accessibility indicator is not appropriate for such budget packages unless the primary reason to do the work is for accessibility improvements. If the work would not be done if the site or facility were already accessible, a different indicator should be used.

(3) Packages for efficiency improvements for existing sites and facilities to realize future O&M savings. A field is provided in Rec-BEST to capture the estimated average annual O&M savings resulting from the investment in the first 5 years following the investment.

(4) Packages for new facility construction within an existing recreation area, when such facility construction can be justified on a benefit cost basis.

(5) Packages for critical non-routine maintenance work. Critical non-routine maintenance is defined as work that, if not accomplished in the Budget Year, will result in failure of a necessary component of recreation infrastructure. Work that will restore an inoperable facility to operability may be defined as critical maintenance, if the facility is a necessary component of recreation infrastructure. For example, if the only shower building in a Class A campground was damaged in a storm and rendered unsafe for visitor use, the costs to repair the building and restore it to public use could be identified as critical non-routine maintenance.

b. The secondary set of indicators further describes the work. More than one indicator may apply to a single work package. All indicators that apply should be attached to each work package.

(1) Packages for work to be done in partnership with other private or public entities, such as challenge partnerships, which results in leveraging Corps resources. A field is provided in Rec-BEST to capture the estimated leveraged value of the budget package, i.e. the amount of partner investment in funds, goods or services that would be realized from funding the package.

(2) Packages that will result in expected increased recreation use fee collection of 10% or more for the recreation area or areas affected by the work.

(3) Packages for work that includes a **critical** health and safety component.

VI-15. **Recreation Budgetary Performance Measures.** The following performance measures have been developed for application in the FY10 budget development, review and defense. The incremental change in performance values for these measures will be calculated for each work package developed in Rec-BEST. The three performance measure values will then be normalized to achieve a single value that will be used to rank all work packages at the district, MSC and national levels. See paragraph VI.18. Recreation Budget Evaluation System (Rec-BEST), below for more information.

a. Park Capacity - This is an output performance measure of recreation capacity or opportunity.

b. Facility Condition and Facility Service - This is an output measure of the quality of the opportunities provided to our visitors.

c. National Economic Development (NED) Benefit and Benefit/Cost Ratio - This is an efficiency measure of our provision of quality opportunities.

d. Health and Safety Services Measure- This is an outcome measure of our provision of health and safety services to visitors.

e. Cost recovery, calculated by dividing recreation use fees collected by recreation funding/expenditure, has been identified as a Recreation Program performance measure. The

nationwide values for this measure will be reported to OMB as a part of the overall program efficiency. In FY10, this measure will also be used as a budgetary factor in computing project's B/C ratio efficiency.

VI-16. **Recreation Budget Construction**. The recreation budget will be constructed using the information delivered as requested in paragraphs VI-10 through VI-15 above. The Recreation Program Team will evaluate the information available and construct a coherent budget that addresses the Recreation Program Mission, Goals and Objectives; the Recreation Budget Goals and Objectives; and focus areas identified above.

a. The Initial program is the starting point on which the performance based recreation budget is constructed. This Initial program will be developed starting with the Initial packages submitted by each project. The total amount of the Initial program will be balanced with above Initial requirements to construct an overall, affordable program that best addresses the Recreation Program Goals and Objectives within the context of the total Corps budget. The Initial program will deliver quantified performance values for the 3 budgetary performance measures – Park Capacity, FCI, and NED Benefit.

b. The sum of the Initial program and Sustained Increment represents the total funding requirement to provide acceptable service to 100% of our customers. This is important information, and care should be taken to assure it is an accurate reflection of that requirement. This total requirement is considered when the ceiling level service program is constructed. An indicator with a text field is provided in Rec-BEST to document if the total of Initial and Sustained Increment increased significantly in FY09 because of increased O&M requirements resulting from Congressional Adds in prior years. The year and description of the Congressional Add should be noted in the text field.

c. Work packages in Improvement Increment will be evaluated based on the incremental change in the 3 budgetary performance measures resulting from accomplishing the work. This will provide a single ranking value that will permit ranking of all work packages from 1 to X, from highest to lowest performing work.

d. Work packages in Improvement Increment will also be identified by work package indicators, which further describe the work to be done. This will permit the segregation of work into categories within which the highest performing work can be identified. For example, the highest performing critical non-routine maintenance can be identified. The highest performing accessibility improvements to be accomplished in partnership with others can be identified. All modernization work can be evaluated based upon its expected increase in fee collection. The combinations of these various data elements result in the capability to create an overall program that is responsive to the Corps requirements, as well as to the interests of OMB, Congress and our customers, within a performance based environment.

VI-17. **Operations and Maintenance Business Information Link (OMBIL) Data Requirements.** Data to compute recreation performance measures will be maintained in OMBIL. Operations Project Managers should assure that all recreation projects are properly identified in OMBIL with a project site area of type "recreation" and that all OMBIL data required for budget development has been entered and is up to date prior to budget development. For FY10, the following OMBIL data will be required by recreation area:

a. Visitation

b. Recreation Area Managing Agency

c. Recreation Area sub-type

d. Numbers of camp sites

e. Numbers of day use parking spaces

f. Visitor Center Type

g. Campground Class

VI-18. **Recreation Budget Evaluation System (Rec-BEST) and P-2.** A web-based tool was developed and first deployed for field use in calculating recreation performance measures for O&M activities in FY06. Rec-BEST uses OMBIL data, supplemented with data provided by the Operations Project Manager, to calculate a value for each of the performance measures associated with each budget package. Using the incremental change in these performance values, Rec-BEST ranks all recreation budget packages at the district, division and HQs levels. Most projects should take the advantage of retrieving data from the previous year in Rec-BEST and review/update the existing budget packages in Rec-BEST instead of creating new ones.

a. The performance measure information must be updated in **Rec-BEST by 23 May 2008.** These performance data will be extracted from Rec-BEST and then merged with budget data extracted from P-2 Primavera Project Manager in OFA on a nightly basis. When entering budget information into P-2 Primavera Project Manager, make sure the corresponding BEST ID's are entered for all budget packages to ensure the proper performance measures can be matched in OFA. For most projects, the preliminary budget information and the matching BEST_ID's can be carried over from previous year's data entry in P-2 or should be taken from the existing Rec-BEST database. For projects that start FY10 budget development in Rec-BEST first, you should provide the budget information to your P-2 correspondent for data entry in P-2 before the deadlines set by the district/division to allow districts and MSC to review and evaluate their budgets comprehensively, across business lines. For projects that enter the budget into P-2 first based on FY09 Rec-BEST budget package information, make sure to revise your Rec-BEST budget information accordingly. For either option, you must enter the matching BEST_ID when entering budget information in P-2. The information needed to provide your P-2 correspondents for data entry is available on the P-2 summary page in Rec-BEST. For the FY10 budget, performance measure output data from Rec-BEST will be loaded to OFA every night once the projects have submitted data input in Rec-BEST and the budget items have been created in P-2-OFA. As the budget review continues, additional Recreation budget review data and detailed rollup spreadsheets will be available to the MSC's and, may be accessed through the NRM Gateway at http://corpslakes.usace.army.mil/employees/recbest/recbest.html along with directions for its use.

b. Rec-BEST will not be used for Construction work packages. No Investigation work packages will be developed for recreation.

VI-19. **Five-Year Glide Path.** The Civil Works Five Year Development Plan purpose is to present an overview on how the funding for the Civil Works program over a five-year period will produce results that contribute to achievement of the strategic goals and objectives in the Civil Works Strategic Plan. The five-year plan focus is to undertake projects and activities that provide the highest net economic and environmental returns on the Nation's investment. See paragraph 8 (b) of the main part of the EC for details.

a. To help in preparing the 2010-2014 five-year plans, the HQ recreation business line manager will work with each MSC/Division to develop five-year funding streams for each project. The funding streams will be the basis for the PY budget and the 2010-2014 Five-Year Development Plan (FYDP) which will be submitted to Congress and Office of Management and Budget (OMB) along with the budget submission. Divisions' five-year programs must be included in the 27 June 2008 submission. After the Divisions submit their five-year funding streams, a CW five-year plan will be prepared.

b. The targeted ceiling program shown in Table VI-4 is to maintain "current services" compared to the FY09 budget, as indicated in the Fiscal Year 2009 Army Civil Works Budget Guidance. Performance goals will focus on providing the same levels of service to visitors to Corps operated parks compared to FY09. The tables below display estimated five-year performance results for the ceiling program.

TABLE VI-4
Five-Year Ceiling Program Performance Targets

Fiscal Year	***FY10***	***FY11***	***FY12***	***FY13***	***FY14***
Budget ($ million)	**$279**	**$288**	**$296**	**$305**	**$314**
Visitor Health and Safety Services[1]	47%	47%	47%	47%	47%
Park Capacity[2] (in millions)	60	60	60	60	60
Facility Condition[3]	3.6	3.6	3.5	3.5	3.5
Facility Service[4]	46%	46%	45%	45%	45%
NED Benefits[5] ($ million)	1,133	1,185	1,220	1,257	1,294
B/C[6]	4.12	4.12	4.12	4.12	4.12
Cost Recovery[7]	16%	16%	16%	16%	16%

1. Percent of visitors served at Corps managed recreation areas with acceptable service levels.
2. Total possible recreation opportunities (in site days/nights) provided at Corps managed recreation areas. The strategy to address budget short fall may include a combination of reduced service levels and reduced recreation opportunities implemented through partial and/or compete park closures
3. Acceptable facility condition standard = 4 or better. Based on a seven point scale: 1 = poor to 7 = excellent.
4. Percent of visitors served with facilities at acceptable condition standards.
5. Contribution of Corp managed parks to National Economic Development (NED)
6. Benefits/Cost ratio. Ratio of NED benefits to program actual expenditures or budget.
7. Percent of total Operations and Maintenance budget spending paid thru recreation user fee receipts.

c. The Recommended program shown in Table VI-5 contains funding for improvements that address visitor health and safety needs, modernize electrical service at high performing campgrounds, improve operational efficiency and improve access to facilities for disabled visitors. In addition, the recommended program includes funding to increase visitor assistance services by rangers to conduct water safety programs and increase patrols in beach areas and Corps operated parks. The program also includes funding for visitation surveys to maintain the capability to monitor visitation levels at Corps projects to enhance the capability of tracking program performances.

d. Five year performance projections reported here are based on estimates provided by field managers in Rec-BEST during the past three years. Under the recommended program, service levels at individual recreation sites will be maintained and/or adjusted to reflect the level of visitation, relative to the cost of such maintenance, at those sites. Levels of service will be held steady at a higher level compared to the ceiling program, through limited investments in service, site and facility improvements. Program efficiency, as measured by RB/RC, will increase by about 10 percent in five years. The downward trend in facility condition projected under the ceiling program will be reversed and facility condition will gradually increase as a result of facility improvement investments in high performing parks, and visitors served at facilities rated at "fair-good" or better will increase by four percent. The facility improvement is also needed to meet the increasing recreation demand from population growth. The table below displays estimated five-year results for the recommended program.

TABLE VI-5
Five-Year Recommended Program Performance Targets

Fiscal Year	***2010***	***2011***	***2012***	***2013***	***2014***
Budget ($ million)	$339	$350	$360	$371	$381
Visitor Health and Safety Services[1]	75%	75%	75%	75%	75%
Park Capacity[2] (in millions)	74	74	74	74	74
Facility Condition[3]	3.8	3.8	3.9	3.9	3.9
Facility Service[4]	50%	51%	52%	53%	53%
NED Benefits[5] ($ million)	1,488	1,582	1,669	1,756	1,848
B/C[6]	4.38	4.52	4.63	4.73	4.84
Cost Recovery[7]	16%	16%	17%	17%	17%

1. Percent of visitors served at Corps managed recreation areas with acceptable service levels.
2. Total possible recreation opportunities (in site days/nights) provided at Corps managed recreation areas.
3. Acceptable facility condition standard = 4 or better. Based on seven point scale: 1 = poor to 7 = excellent.
4. Percent of visitors served with facilities at acceptable condition standards.
5. Contribution of Corp managed parks to National Economic Development (NED)
6. Benefits/Cost ratio. Ratio of NED benefits to program actual expenditures or budget.
7. Percent of total Operations and Maintenance budget spending paid thru recreation user fee receipts.

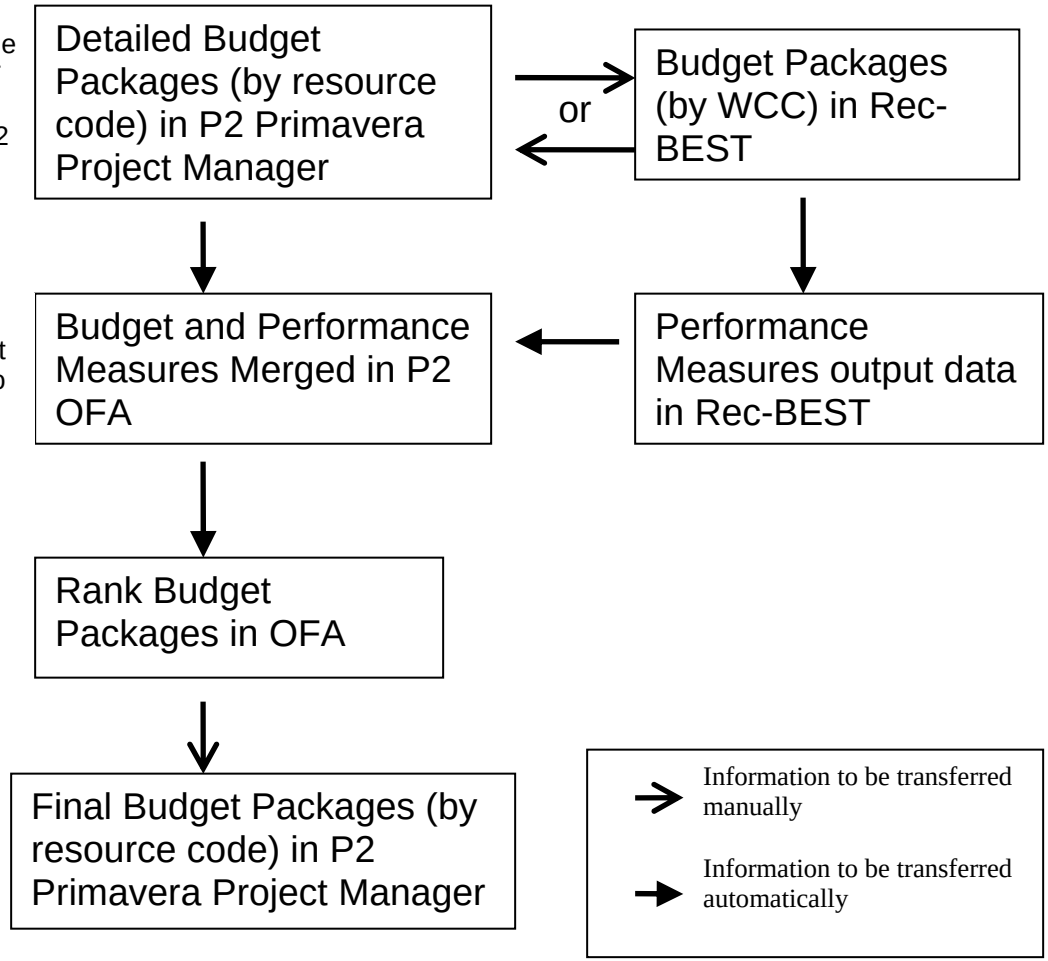
ILLUSTRATION VI-1
FY10 Recreation Budget Development Work Flow

Two options for building your FY10 budget: 1. Start in Rec-BEST and then provide the budget information to your P2 correspondent for data entry in P2. 2. Start the budget development in P2 then revise your Rec-BEST budget information accordingly. For either option, it is recommended that the FY09 Rec budget entered in P2 should be carried over to FY10 to minimize the efforts of entering the same budget information again. Make sure to enter the matching BEST_ID when entering budget information in P2.

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

HQ and MSC business line managers develop the nationwide program using budget and performance measures submitted in P2 and Rec-BEST. Recreation budget is then submitted to HQ, ASA, and later OMB for budget appropriation.

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



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REGULATORY
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APPENDIX VII

Regulatory

VII-1. Background. The Regulatory program protects the aquatic environment by regulating dredge and fill and other construction-related activities in jurisdictional waters of the United States. This responsibility is mandated by the Clean Water Act and the Rivers and Harbors Act of 1899 and other laws. The Corps evaluates and issues over 100,000 permits a year for projects with potential impacts on waters of the United States, including wetlands.

VII-2. Objectives. The goal of this EC is to provide guidance to all Districts to accurately request funds to perform its Regulatory mission as determined by specific levels in the performance measures. The Regulatory Objectives and Performance Measures are provided below in Table VII-1, “Regulatory Goals and Performance Measures.” These goals and performance measures were developed through a collaborative process with the Corps and OMB and are taken from the Program Analysis and Review Tool (PART) program administered by OMB. The Performance Measures were developed to link the Regulatory Budget to performance that would provide data on the effectiveness of the program. For example, the Objective “No Net Loss of Aquatic Resources” would be defined by data captured through Performance Measures 1 through 6. Based on the national budget priorities, the Corps would be provided funds to administer the Program. Because the Corps Regulatory program is predominantly a labor-based program, dollars allocated to the Program are directly correlated to the target percentages for each of the Performance Measures. The percentage targets for each of the performance measures are designed to judge performance of these objectives based on available budget and to provide information on the veracity of data for the overall Program Goals. For example, data collected during compliance visits (i.e., percent of sites meeting performance criteria) provide information on the success of the Program Goal of "Avoidance and Minimization of Impacts" by confirming the requirements placed on applicants are completed as permitted and entered in the database. Higher target percentages for Performance Measures will result in more comprehensive data which will provide a better measure of success for the Objectives.

VII-3. Civil Works Five - Year Development Plan. The Civil Works Five Year Development Plan is designed to provide a framework under which a five-year funding plan will produce results that contribute to achievement of the strategic goals and objectives in the Civil Works Strategic Plan. For the Regulatory program, the proposed increments included in this EC were developed to provide the glide path to get the program to its target goals within the proposed five-year plan. The focus of the plan is to undertake projects and activities that provide the highest net economic and environmental returns on the Nation’s investment.

VII-4. Activities. The program has historically categorized, allocated, and expended funds within the following categories:

Activity	**Category**
Permit Evaluation	100
Enforcement and Resolution	210
Studies	300
Other Regulations	400
Environmental Impact Statements	500
Administrative Appeals	600
Compliance: Authorized activities and mitigation	800

This categorization allows the program managers to distribute funds in particular categories and track utilization. These accounts will also provide information on the effectiveness of the program within each of the categories.

TABLE VII-1 Regulatory Goals and Performance Measures	
Program Goals	**Performance Measures**
No Net Loss of Aquatic Resources **Avoidance and Minimization of Impacts to Aquatic Resources**	**1. Individual Permit Compliance** The Corps shall complete compliance inspections on XX% of all individual permits issued and constructed within the preceding fiscal year.
	2. General Permit Compliance. The Corps shall complete compliance inspections of XX% of all General Permits (GPs and NWPs) with reporting requirements issued and constructed within the preceding fiscal year.
	3. Mitigation Site Compliance The Corps shall complete field compliance inspections of XX% of active mitigation sites each fiscal year. Active mitigation sites are those sites authorized through the permit process and are being monitored as part of the permit process but have not met final approval under the permit special conditions (success criteria).
	4. Mitigation Bank/In Lieu-Fee Compliance The Corps shall complete compliance inspections/audits on XX% of active mitigation banks and in lieu fee programs annually.
	5. Resolution of Non-compliance Issues. The Corps will reach resolution on non-compliance with permit conditions and/or mitigation requirements on XX% of activities determined to be non-compliant at the end of the previous fiscal year and determined to be non-compliant during the current fiscal year.
	6. Resolution of Enforcement Actions. The Corps shall reach resolution on XX% of all pending enforcement actions (i.e., unauthorized activities) that are unresolved at the end of the previous fiscal year and have been received during the current fiscal year.
Expedite Permit Processing	**7. General Permit Decisions.** The Corps shall reach permit decisions on XX% of all General Permit applications within 60 days.
	8. Individual Permits. The Corps shall reach permit decisions on XX% of all Standard Permits and Letters of Permission (LOPs) within 120 days. This standard shall not include Individual Permits with Formal Endangered Species Act (ESA) Consultations.

VII-5. Performance Measures:

a. **Performance Measure 1**. Individual Permit Compliance. The Corps shall complete compliance inspections of XX% of all individual permits issued and constructed (or under construction) within the preceding fiscal year (may use compliance certification forms in accordance with NWP General Condition 14 to determine which projects to inspect).

b. **Performance Measure 2**. General Permit Compliance. The Corps shall complete compliance inspections of XX% of all General Permits (GPs and NWPs) with reporting requirements issued and constructed (or under construction) within the preceding fiscal year (May use compliance certification forms in accordance with NWP General Condition 14 to determine which projects to inspect).

c. **Performance Measure 3**. Mitigation Site Compliance. The Corps shall complete field compliance inspections of XX% of active mitigation sites each fiscal year. Active mitigation sites are those sites authorized through the permit process and are being monitored as required by the permit conditions but have not met final approval under the permit special conditions (success criteria). The measure does not include mitigation banks and in lieu fee programs.

d. **Performance Measure 4**. Mitigation Bank/In Lieu Fee Compliance. The Corps shall complete compliance inspections/audits on XX% of active mitigation banks and in lieu fee programs annually.

e. **Performance Measure 5**. Resolution of Non-Compliance Resolution with Permit Conditions. The Corps will reach resolution on non-compliance with permit conditions and/or mitigation requirements on XX% of activities determined to be non-compliant at the end of the previous fiscal year and determined to be non-compliant during the current fiscal year. Resolution for this measure shall include removal of the fill_material, processing of an After-The-Fact permit, a requirement to complete some type of compensatory mitigation (voluntary restoration or payment of in-lieu fees), referral to EPA or Assistant US Attorney (AUSA), or resolution by the requirement for monetary compensation as a punitive measure.

f. **Performance Measure 6**. Resolution of Unauthorized Activities. The Corps shall reach resolution on XX% of all pending enforcement actions (i.e., unauthorized activities) that are unresolved at the end of the previous fiscal year and have been received during the current fiscal year. Resolution for this measure shall include removal of the fill material, processing of an After-The-Fact permit, a requirement to complete some type of compensatory mitigation (voluntary restoration or payment of in-lieu fees), referral to EPA or AUSA, or resolution by the requirement for monetary compensation as a punitive measure.

g. **Performance Measure 7**. Processing of General Permits. The Corps shall reach permit decisions on XX% of all General Permit applications within 60 days.

h. **Performance Measure 8**. Processing of Individual Permits. The Corps shall reach permit decisions on XX% of all Standard Individual Permits and Letters of Permission (LOPs) within 120 days. This standard shall not include Individual Permits with formal Endangered Species Act (ESA) Consultations.

VII-6. General Submission Guidance. Data will be entered into the P2 Program and District/Division resource requests will be generated in a report. A separate Budget (inactive) WBS will be added below the existing WBS. Data will be input to reflect resource needs for the funding levels outlined in VII-9. MSC's must insure that submissions reflect uniform and consistent levels of work effort among the districts and those submissions accurately reflect the required level of service. Resources required by the

division should be programmed under Expenses. However, one Level 1 Regulatory activity should be submitted to cover costs for a single GS-13/YD-2 Appeal Review Officer at the division. It will not be submitted under a selected district but as a division project.

VII-7. Types of Activities (Projects) and Work Functions. Resource needs under the Regulatory appropriation should be submitted for up to seven activities (projects). Resources will be further identified according to P2 Resource codes. The seven Regulatory activities are Permit Evaluation- 100, Enforcement- 210, Studies-300, Other Regulations-400, Environmental Impact Statements (EISs)-500, Administrative Appeals-600, and Compliance- 800.

VII-8. Definition of Activities (Project) Categories. Regulatory is divided into seven activity categories:

a. **Permit Evaluation (100)**. Includes all costs related to the review and evaluation of permit applications under Section 9, 10, 103 and 404 as well as environmental assessments supporting this review. Cultural resource investigations, jurisdiction determinations, public hearings, and other activities related to application evaluation are included as are general permit development and consideration of activities under general permits. Cost for support items such as automated permit tracking systems or other computer or micrographic support and equipment purchases should be identified in description/argument. All resource requests will be entered in the sub-accounts 110 for Standard Permits (Individual, Letter of Permission and Denial), 120 (General Permits – including development) and 130 (Other permit work not involving specific permits).

b. **Enforcement (210)**. Includes all costs related to those activities associated with unauthorized activities and jurisdiction determinations related to enforcement actions, ground and aerial surveillance, and follow-up on violations. Historically, approximately 18% to 25% of national resources were allocated for enforcement, including compliance costs. Establishment of the Compliance category has necessitated a re-appraisal of the enforcement costs without inclusion of compliance efforts.

c. **Studies (300)**. Includes all costs related to studies such as jurisdiction studies (actual jurisdiction determinations are included under permit evaluation), mapping, wetland studies, shoreline inventories, and collection of data for environmental databases. Resource requests must be grouped by an identified and defined specific study. Studies may be submitted at any level depending on their priority; however, it is recommended that funds for studies be prioritized after all on board (mid FY06) labor is covered.

d. **Other Regulations (400)**. Includes all costs related to administration of the miscellaneous regulations such as danger zones and restricted areas, plus review of Section 402 applications. Recent security concerns may require a need for funds for administration of restricted areas and danger zones.

e. **Environmental Impact Statements (EISs) (500)**. Includes all costs required for preparation of EISs when Corps is the lead or a cooperating agency. In most cases, these costs are associated with Corps review and management only; applicants are responsible for development and analysis. Approval by the MSC and Headquarters is required where the Corps Regulatory Program proposes to provide more than management and review services for any EIS. Resource requests will be grouped by identified and defined EISs. Any new project-specific EISs will be resourced under the Branch organization codes since review will occur in the Regulatory branch. Some resource requests for programmatic EISs may require support from other offices and those organization codes should be used. All EISs must be identified as either ongoing or projected and the percent probability of the EIS being required should be indicated. Costs associated with the review of non-Corps EISs are included under Permit Evaluation, unless the review is of an in-depth nature requiring more than $5,000. No request for EIS may be submitted where the EIS is not specifically identified. Costs for EIS's may be submitted at

Level 1 and 2 if the EIS is on going or a determination has been made it will be undertaken. An EIS, where there has been a preliminary decision that it will likely be needed, should be placed in Level 3, ranked below any request tied to performance.

f. **Administrative Appeals (600)**. Costs to support one grade 13/YD-2 Appeal Review Officer, in Level 1, for Regulatory decisions, including travel and related costs, at division offices; and any appeals costs at districts.

g. **Compliance (800)**. Includes all costs related to compliance inspections for a percentage of the authorized activities and mitigation sites (including mitigation banks, in-lieu fee programs, and site specific mitigation). This category includes costs associated with resolution of non-compliance found as part of inspections as well as administrative civil penalties for non-compliance.

VII-9. Definition of Resources.

a. **Labor (LABOR)**. Fully burdened labor costs required to pay salaries and benefits of personnel (except contracted personnel) and normal office operational costs to support these personnel according to the service provided at each level, i.e., only manpower and costs related to manpower necessary to meet the performance measures should be included at that level. Labor will be input by organization code (Regulatory, all support by other District elements, and work by other Corps elements). At the third level, additional manpower may be shown but in requests ranked below those needed to meet the performance goals. Items to include are: overhead costs not separately charged under another P2 resource code such as rent, utilities, communications, computer systems, travel, training, reproduction, supplies, etc.

b. **Vehicle Costs (GSAVEH)**. All projected vehicle costs to perform work at the identified activity level.

c. **Printing (PRINTING)**. All printing costs associated with the identified activity level.

d. **Other contractual services (OTHCONSVC)**. Any contractual services required at the identified activity level. All mission support type contracts must by listed (new or renewal of existing contracts). Examples of work to be shown are: aerial photography; inspection contracts; cost sharing agreements with states or other Federal agencies; contractual personnel; personnel from other agencies paid with Regulatory funds; data gathering contracts.

e. **Travel (TRAVEL)**. All direct-charged travel costs required to meet goals of identified activity level.

f. Any other appropriate P2 resource code required to meet stated Regulatory Program goals. Resources shall be entered at the appropriate activity and funding level.

g. **Data and Database Costs**. Costs associated with the required hardware support for the spatial database (ORM-2) should be provided in supplemental comments and be included in the totals for Level 2 funding. Districts should coordinate with the local IM personnel and Institute for Water Resources (IWR) to develop a strategy to maintain computer hardware that meet the minimum ORM-2 hardware requirements (or greater) and that meet the federal buy program standards for staff work stations. Districts should consider submitting budget requests for priority data acquisition (beyond that provided by HQ and other sources) if it is determined to be critical for analysis of project impacts, cumulative impacts, and mitigation within targeted watersheds.

VII-10. Funding Levels and Increments. District Regulatory resource requirements should be submitted in three Funding Levels including Increments for performance, non-performance mandatory work, and non-mandatory non-performance related work as described below. The Level 1 Funding program is designed to provide a balanced, fully operational, albeit reduced, program with the performance targets specified in Increment 1.

Costs to support more than one performance measure may be combined provided the request includes only costs to meet the measures for one of three program categories (permit evaluation, enforcement, and compliance). For Performance Measure 8, insure funds are included to process all Individual Permits while meeting the standard for those permits with no ESA requirement. Funding arguments should indicate differences or similarities with current levels of effort. Requests for new FTEs (not authorized in mid FY 2008) must be identified as new FTEs in the Labor resource description. Increment 2 and Increment 3 reflect the additional resources required to meet performance measure targets indicated below. Total Funding levels for Level 1 should include Increment 1 and any additional resources required for Increment 4, mandatory non-performance related work (Includes work in categories 130, 400, and 600. Resource requests for Increment 5 (high priority SAMPS and/or other watershed management plans, GIS analytical tools, acquisition of spatial data sets, and/or development of spatial assessment tools may be submitted within Total funding for Level 2 or 3 if they will provide significant benefit to management of the program workload.

a. **Increment 1**. Resource requests should be submitted with Increment 1 (minimum) requirements allowing the performance as defined below. Increment 1 reflects the FY08 performance targets that are currently in place. Increment 1 was designed to provide a balanced, fully operational, albeit reduced, program with the following performance targets.

Compliance requests(s) to meet the following levels of performance:

Performance Measure 1	Individual Permit Compl Insp	Level 1 Target: 10%
Performance Measure 2	General Permit Compl Insp	Level 1 Target: 5%
Performance Measure 3	Mitigation Site Compl Insp	Level 1 Target: 5%
Performance Measure 4	Mitigation Bank/ILF Compl Insp	Level 1 Target: 20%
Performance Measure 5	Resolution of Non-compliance	Level 1 Target: 20%

Enforcement requests(s) to meet the following level of performance:

Performance Measure 6	Resolution of Unauthorized Activities	Level 1 Target: 20%

Permit Evaluation requests(s) to meet the following levels of performance:

Performance Measure 7	Processing of General Permits	Level 1 Target: 75%
Performance Measure 8	Processing of Individual Permits	Level 1 Target: 50%

b. **Increment 2**. The incremental increase of all resource requests at Increment 2 should allow the district to provide (but not exceed) the following increased levels of service and performance. Increment 2 was designed to meet the performance goals for permit processing along with an increase in compliance and enforcement efforts from Increment 1. Some additional requests, not directly contributing to meeting the measures may be submitted provided they are essential to support the other resources needed to meet the performance targets below.

Compliance request(s) to meet the following levels of performance:

Performance Measure 1	Individual Permit Compl Insp	Level 2 Target: 20%
Performance Measure 2	General Permit Compl Insp	Level 2 Target: 10%
Performance Measure 3	Mitigation Site Compl Insp	Level 2 Target: 20%
Performance Measure 4	Mitigation Bank/ILF Compl Insp	Level 2 Target: 75%
Performance Measure 5	Resolution of Non-compliance	Level 2 Target: 30%

Enforcement request(s) to meet the following level of performance:

Performance Measure 6 Resolution of Unauthorized Activities Level 2 Target: 30%

Permit Evaluation request(s) to meet the following levels of performance:

Performance Measure 7	Processing of General permits	Level 2 Target: 90%
Performance Measure 8	Processing of Individual Permits	Level 2 Target: 75%

c. **Increment 3**. Additional incremental requests should be submitted to meet the increased performance standards identified below for Level 3. The requirements for the Level 3 requests represent the fully funded program, meeting all stated Program Objectives. After requests have been submitted to meet the performance targets, additional, non-mandatory requests to enhance the program may be submitted. NOTE: Districts which are currently exceeding any of the performance measure targets in Level 3, costs for manpower in these areas should be redirected to work to support the other performance measures.

Compliance package(s) to meet the following levels of performance:

Performance Measure 1	Individual Permit Compl Insp	Level 3 Target: 50%
Performance Measure 2	General Permit Compl Insp	Level 3 Target: 20%
Performance Measure 3	Mitigation Site Compl Insp	Level 3 Target: 30%
Performance Measure 4	Mitigation Bank/ILF Compl Insp	Level 3 Target: 100%
Performance Measure 5	Resolution of Non-compliance	Level 3 Target: 40%

Enforcement package(s) to meet the following level of performance:

Performance Measure 6 Resolution of Unauthorized Activities Level 3 Target: 40%

Permit Processing Requirements None required
(Level 2 meets stated goal for Measures 7 and 8).

d. **Increment 4**. All mandatory, non-performance related work (e.g. work in categories 130, 400, 600)

e. **Increment 5**. All non-mandatory, non-performance related work (e.g. work in categories 300 and 500)

VII-11. FTE Output Measures. All requests for Regulatory labor shall result in a calculation of FTEs by one of the P2 tools. *IMPORTANT*: In order to insure that labor requests are funded, districts should be certain that the appropriate number of FTEs is reflected; a zero will result in a resource request being ranked below most labor-related requests and possibly not being funded. Division Offices should check FTE calculations thoroughly.

VII-12. Points of Contact. Questions pertaining to policies, procedures, or format of the Regulatory Program activity should be referred to HQUSACE, Dr. Mark Sudol, (202) 761-8560 or Jennifer McCarthy at (202) 761-4614.

VII-13. Submission Requirements. The suspense date for submission of required materials from divisions is **27 June 2008**.

VII-14. Division Funding & Staffing Summary. Each district will prepare and submit electronically to its division office the funding and staffing information summary in Table VII-2. Staffing summary should be developed from the resource requirements of each Funding Level and created in P2. Divisions will forward these to HQUSACE (Mark Sudol or Jennifer McCarthy) electronically in an excel table format and also prepare and submit a division-level Table (same format as Table VII -2). The division table will sum district amounts for each category and level (cumulatively and by district). Divisions will also forward copies of the individual district tables to headquarters. Divisions will include the division office amounts for Administrative Appeals to the summary table.

Table VII-2

Division/District: Example

Funding Summary

($000)

Funding Level	Increment 1. Performance for Mandatory Accounts	Increment 2. Performance for Mandatory Accounts	Increment 3. Performance for Mandatory Accounts	Increment 4. Mandatory, Non-performance related work	Increment 5. Non-Mandatory, Non-performance related work	Funding Level Total	FTE Totals (Reg Staff/All)
Funding Level 1							
Funding Level 2							
Funding Level 3							

APPENDIX VIII
WATER SUPPLY
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APPENDIX VIII

Water Supply

VIII-1. Background. The Corps of Engineers has provided water supply storage space in its multi-purpose reservoirs for many years. Based on current data, approximately 9.4 million acre feet of municipal and industrial (M&I) water supply storage space are included in 134 reservoir projects in 26 states plus Puerto Rico. Approximately 96% of this storage is under contract for present or future use. Although the primary responsibility for developing water supplies for domestic, municipal, industrial and other purposes rests with State and local interests, M&I storage space may be recommended for inclusion in any Corps reservoir pursuant to the Water Supply Act of 1958. Studies associated with reallocation of water for M&I and/or environmental purposes; although not considered low priority, must compete with all activities in a constrained budget environment.

VIII-2. Purpose. As one of the nation's largest water management agencies, the U.S. Army Corps of Engineers plays an important role in ensuring that Americans have enough water to meet their needs. The Water Supply program currently is capable of providing almost 5 billion gallons of water per day to allow State and local interests to supply cost-effective water to homes, businesses and farms nationwide.

VIII-3. Goals and Objectives. Table VIII-1 displays the Water Supply Program Objectives and Performance Measures published in the March 2004 Civil Works Strategic Plan. The CW Strategic Plan was developed with an explicit assumption of an unconstrained resource environment to encourage an unconstrained assessment of the nation's water resources needs and potential Corps response. Preparation of the FY10 budget request requires the recognition of a constrained budget environment and the ongoing effort to evolve better budget linked performance measures.

TABLE VIII-1
Water Supply Objectives and Performance Measures

Program Objectives	Performance Measures
In partnership with non-Federal water management plans and consistent with law and policy, manage Corps reservoirs to provide water supply storage in a cost efficient and environmentally responsible manner.	Acre-feet of storage under contract versus acre-feet available. Percentage of costs covered by revenues returned to Treasury.

VIII-4. Performance Measures.

a. The Corps Water Supply program is well established and valued, however our capability to continue to supply storage is dependent on our ability to demonstrate cost-efficiency of water storage and need for additional storage space for water supply purposes. OMB suggested the performance measures contained in Table VIII-1 as part of the deliberations on the Corps Strategic Plan. Both measures reflect on the ability of the Water Supply program to return revenues to the Treasury. In that regard a secondary program objective will be to increase revenues to the Treasury through the reallocation of storage space from other authorized purposes and the timely collection of payments from existing water supply contracts. The Corps water supply program is very cost effective. Our 2006 data show an annual collection of $13.0 million in principal and interest (P&I) payments and an additional collection of $10.0 million for

O&M expenditures. The cost to the districts to collect this $23.0 million was $1.7 million. All collections are returned to the U.S. Treasury as miscellaneous receipts.

b. In the above table the term “acre-feet of storage under contract” refers to both present and future use contracts and "acre-feet available" is defined as acre-feet of storage authorized for M&I water supply to include both originally authorized storage space as well as that storage space reallocated for which a water supply agreement has been signed . For the performance measure “percentage of costs covered by revenues returned to Treasury”, a proxy will be utilized until better reporting data are available. This proxy is a comparison of the costs assigned to present use storage space compared to the costs assigned to the total acre-feet of storage space available as defined above. In the development of this data, “present use” includes that storage space for which all capital costs have been recovered in full as well as that storage for which capital costs are currently being repaid.

VIII-5. Budget Increments for FY10 Budget Development. In order to achieve the above objectives, we are establishing budget increments, to assure uniformity across the country in building annual budgets from the same point. For water supply, budget increments will be established by funding category. See the Definition/Glossary section of the main EC for detailed and additional budget definitions.

a. **Investigations (I):** This is for water supply studies funded under the Investigation budget and includes the funding for the Feasibility phase of water supply reallocation reports and the associated water supply agreement(s).

(1) Increment 1. This increment will include only the minimum continuing activities and the total request is limited to the budget amount for PY -1, by study. Do not include new PED or study phases. Increment must be performance based and integral with a study/project with high outputs and consistent with ranking. As there was no I funding in FY09, there will be no funding in this category in FY10.

(2) Increment 2. New phases of studies previously budgeted may be initiated in this increment. Increment must be performance based and integral with a study/project with high outputs and consistent with ranking.

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

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

(5) Increment 5-8: Not used

(6) Increment 9: This increment will include unbudgetable studies that are inconsistent with Administration policy, such as environmental infrastructure.

b. **Construction (C**): There will be no new starts for single purpose water supply projects. Should a multipurpose project with water supply as one of those purpose, be placed under construction and/or should a modification or reallocation of storage in an existing project occur, all costs allocated to the water supply feature will be repaid by the local sponsor prior to or during the period of construction.

(1) Increments 1-4: Not appropriate (see above paragraph b)

(2) Increment 5-8: Not used.

(3) Increment 9: This increment will include unbudgetable projects that are inconsistent with Administration policy, such as environmental infrastructure.

c. **Operation & Maintenance (O&M):** For the operation and maintenance of specific water supply facilities and for the development, renegotiation and billing and collection of water supply agreements to include the maintenance of the water supply module of the Operation and Maintenance Business Information Link (OMBIL). The sum of Increment 1 and Increment 2 is to account for 75% (by MSC) of the amount listed in Table C-2.2. The total of Increments 1, 2 and 3 represents no more than 100% of the amount in Table C-2.2 by MSC. New starts are not applicable to funding for the operation and maintenance of specific water supply facilities.

(1) Increment 1. Only critical routine activities can be included in this increment. Critical cyclical routine activities may be included in Increment 1. Routine activities are those that have been conducted every year for at least the last Five-Years, for example activities required by billings and collections of water supply agreements. Cyclical activities are those required on a regular basis, but not each year such as expenses related to maintaining specific water supply conduits. It is anticipated that most all water supply operation and maintenance funding will occur in this increment. Increment must be performance based and integral with a study/project with high outputs and consistent with ranking.

(2) Increment 2. This increment is for critical non-routine activities. Non-routine activities are those that must be accomplished to insure project safety, and critical maintenance actions that are required to keep the project operating and delivering benefits. Examples of non-routine activities would be the replacement of a part of the specific water supply conduit. Each non-routine activity must be shown separately to allow individual funding decisions based on the performance metrics and must be shown in priority order by District and MSC Rank. Increment must be performance based and integral with a study/project with high outputs and consistent with ranking.

(3) Increment 3. This increment includes critical operation and maintenance activities, both routine and non-routine, for the 25% above the minimal program level, that are defined by the state of the practice and are needed to sustain the expected future benefits of the project Preparation of reports for Major maintenance (MM) and rehabilitation (MR) can be included in this increment. MM and MR activities must have approved reports before they can be included for implementation. Increment must be performance based and integral wit a study/project with high outputs and constituent with ranking.

(4) Increment 4. This increment includes operation and maintenance activities, both routine and non-routine, above the 100% level of the Table C 2.2 level by MSC, that are defined by the state of the practice and are needed to sustain the expected future benefits of the project. Activities to support the water supply module in OMBIL should be placed in this increment. In most cases, activities in this increment will support continuing the level of service that customers, stakeholders, and others have come to expect and depend-on for sustaining public safety and economic, environmental and social benefits. Multiple Increment 4 activities should be submitted that reflect the logical pieces of routine or non-routine activities beyond the 5 year average limit. Increment must be performance based and integral with a study/project with high outputs and consistent with ranking.

(5) Increment 5. Activities that have a high expected return on investment that enable greater levels of performance in future years should be included in this enhance or capability increment. Increment must be performance based and integral with a study/project with high outputs and constituent with ranking.

(6) Increment 6-8: Not used.

(7) Increment 9: This increment will include unbudgetable studies that are inconsistent with Administration policy, such as environmental infrastructure.

d. **Operation and Maintenance for Water Supply Studies (O&M Studies):** This is for studies and surveys for water supply and includes all costs to prepare reports associated with the water supply feature of the project including the Reconnaissance phase of reallocation studies.

(1) Increment 1. This increment is applicable only to the two studies included in the FY09 budget. Funding will be limited to 75% of the amount shown in Table C-2.2 by MSC. Do not include new study phases. Previously budged reallocation studies migrate to I after initial assessments (see Annex C).

(2) Increment 2. Only studies to support critical non-routine activities may be included in this increment. Critical non-routine activities are those that must be accomplished to insure project safety, and critical maintenance actions that are required to keep the project operating and delivering benefits. Studies of non-routine activities are actions that are “project like” in that they are a unique action with a specific beginning and end. Increment must be performance based and integral with a study with high outputs consistent with ranking.

(3) Increment 3. This increment includes studies of both routine and non-routine activities for the 25% above the minimal program level, by MSC of the amount shown in Table C-2.2. This increment would be applicable only for the two studies of Increment 1. Increment must be performance based and integral with a study with high outputs consistent with ranking.

(4) Increment 4. This increment includes studies of both routing and non-routine activities above the 100% level of the Table C 2.2 level by MSC, that are needed to sustain the expected future benefits of the projects such as sedimentation surveys. In most cases, activities in this increment will support continuing the level of service that customers, stakeholders and others have come to expect and depend on for sustaining public safety and economic, environmental and social benefits. Studies for multiple Increment 4 activities should be submitted that reflect the logical pieces of routine or non-routine activities beyond the 5 year average limit. Increment must be performance based and integral with a study with high outputs consistent with ranking.

(5) Increment 5. Studies of activities that have a high expected return on investment that enable greater levels of performance in future years should be included in this enhanced or capability Increment. Increment must be performance based and integrated with a study/project with high outputs and consistent with ranking.

(6) Increment 6-8: Not used;

(7) Increment 9: This increment will include unbudgetable studies that are inconsistent with Administration policy, such as environmental infrastructure.

VIII-6. Rating and Ranking Criteria for FY10 Budget Development. I studies, at the reconnaissance or feasibility level or O&M funded initial assessments evaluating reallocation of storage space from other project purposes that will otherwise increase revenues to the Treasury will be given priority for budgeting purposes. As such, all budget requests for water supply studies must be accompanied by the following set of criteria: “anticipated cost of the study versus the anticipated capital costs to be recovered” and “degree of local support” (little), (some) or (strong).

VIII-7. Civil Works Five-Year Development Plan. The purpose of this plan is to present an overview on how the funding for the Civil Works program over a five-year period will produce results that contribute to achievement of the strategic goals and objectives in the Civil Works Strategic Plan. See paragraph 8 (b) "Civil Works Five-Year Development Plan" of the main EC for additional information. The FYDP for the Water Supply Program focuses on labor and associated costs involved in the development of new water supply agreements; costs required for existing water supply agreements such as renegotiations and for billings and collections including delinquencies, law suits and modifications; as well as the costs associated with the operation and maintenance of specific water supply features of the projects. Studies may be considered in accordance with the guidance of above paragraph VIII-5.

VIII-8. Special Considerations or Special Rating Criteria. The work category codes for water supply are described in Annex C. Phase codes are defined in Table 3 of the main EC. Districts will use P2 and the appropriate work category and phase codes to request funds for water supply activities for each project. These requests should be placed in the appropriate increment based on performance metrics. For joint activities on O&M multipurpose hydropower (Cat/Class 300) projects activities will be ranked in the Hydropower business line according to its criteria. All other joint activities – joint costs, including water supply related work on non-Cat/Class 300 projects will be included in the project's predominate business line. Additional instructions on Joint Activities – Joint Costs are contained in paragraphs C-2.3b and e of Annex C.

VIII-9. Water Supply Business Line Budget Ranking Criteria Matrix. The data required for ranking the 10 budget requests is shown in Table VIII-2 (*spreadsheet*).

May 08 WTR
spreadsheet.xls

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INVESTIGATIONS
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SUB-ANNEX A-1

General
(RCS CECW-B-12)

A-1.1. Applicability. This annex provides Program guidance and procedures for all activities in the Investigations (I) appropriation title and comparable ones from the Flood Control, Mississippi River and Tributaries (MR&T) appropriation title, where appropriate

A-1.2. Organization and Structure. Sub-annex A-2 includes all specifically Programmed activities – Reconnaissance and Feasibility Studies, Restudies/Reviews, and Preconstruction Engineering and Design (PED). It provides guidance on feasibility studies and PEDs, including new starts. Subannex A-3 covers all other activities funded by the Investigations appropriation title and the Flood Control, Mississippi River and Tributaries counterparts.

A-1.3. **Definitions.** The following definitions are provided to assist you in identifying surveys and projects to be included in the submission of the Investigations program.

a. **Navigation Studies**. Navigation studies seek to provide safe, reliable, and efficient waterborne transportation systems (channels, harbors, and waterways) for movement of commerce, national security needs, and recreation.

b. **Flood Damage Reduction Studies**. Studies seek to prevent or reduce flood damages through the use of structural or non-structural measures. Structural measures include dams with reservoirs, dry dams, channelization measures, levees, walls, diversion channels, ice-control structures, and bridge modifications. Non-structural measures reduce flood damages without significantly altering the nature or extent of flooding by changing the use made of the flood plains, or by accommodating existing uses to the flood hazard Non-structural measures are flood proofing, permanent relocation of structures, flood warning/preparedness systems, and regulation of flood plain uses.

c. **Shoreline Protection Studies**. Studies seek to provide hurricane and storm damage reduction caused by wind-generated and tide-generated waves and currents along the nation's ocean coasts, Gulf of Mexico, Great Lakes and estuary shores.

d. **Ecosystem Restoration Studies**. Studies seek to identify means to restore degraded ecosystem structure, function, and dynamic processes to a less degraded, more natural condition. This does not include actions normally considered to be remediation of hazardous material.

e. **Watershed/Comprehensive Studies**. Watershed studies are planning initiatives that have a multi-purpose and multi-objective scope and accommodate flexibility and collaboration in the planning process. Possible areas of investigation include flood damage reduction activities, ecosystem restoration, navigation, water supply, and recreation. Districts are encouraged to pursue this approach.

(1) Requires consideration about water resources development and management in the context of multiple purposes rather than single purposes, and, thus, facilitates the search for comprehensive and integrated solutions.
(2) Improves opportunities for public and private groups to identify and achieve common goals by unifying on-going efforts and leveraging resources.
(3) Identifies a combination of recommended actions (a Watershed Management Plan) to be undertaken by various partners and stakeholders in order to achieve local, tribal, regional, and national

water resources management goals identified in the study and may or may not identify further budgetable Corps studies or implementation projects.

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

f. **Special Studies**. This category should be used only in special cases, where the survey or project has a National perspective and is not tied to one project purpose or business line; most often these will be HQ funded items.

g. **Reconnaissance Phase completion**: The Reconnaissance phase ends with the execution of a Feasibility Cost Sharing Agreement (FCSA) or a report recommending no Federal action.

h. **Feasibility Phase completion**: The Feasibility phase ends on the date the Division Engineer's Transmittal of the final feasibility report to Headquarters.

i. **Preconstruction Engineering and Design (PED) Phase completion**: The PED phase ends after completing the first set of plans and specifications or when the Project Cooperation Agreement/Project Partnership Agreement (PCA/PPA – See Definitions/Glossary Section) is executed.

j. **New Phase**: A study or project is considered to be in a NEW PHASE once it has completed the current phase that is funded and is ready for budgeting in the follow-on phase (e.g., from Reconnaissance to Feasibility or Feasibility to PED). Seamless PEDs are a new phase. A value must be entered in the data field named "Phase Status" for every budget item (row) in P-2(OFA). The valid values are New Phase (NP), Continuing (CN), and Last Year of Phase (LY). For a new Recon, you should enter New Phase (NP) in this column. If a study is completing one phase and starting a new one in the PY (e.g., finish Feas and start PED), each should be a separate entry (one LY and one NP).

SUB-ANNEX A-2

Specifically Programmed Studies And Projects - New And Continuing

A-2.1. Performance Based Budget Increments.

a. **Ranking criteria**. To be considered for inclusion in the FY 10 program each study must meet the following criteria prior to applying the business line performance/ranking criteria:

(1) be in accord with current policy
(2) urgency of implementation of problem solution
(3) have local support for continuation of activity
(4) likely participation of non-Federal sponsor in implementation of solution
(5) scheduled activity completion date
(6) compliance with NEPA and other environmental regulations appropriate for the stage of the effort.

b. **CECW Program.** CECW will review the I portion of the Civil Works Program considering the national criteria in effect mid-summer PY-2 and guidance from ASA(CW) and OMB. CECW may increase or decrease the total for I. Once the initial level is established, investment increments will be added in accordance with priorities in each business line. To be considered for inclusion in the FY 10 program each study must meet the following criteria prior to applying the business line performance/ranking criteria:

(1) be in accord with current policy
(2) urgency of implementation of problem solution
(3) have local support for continuation of activity
(4) likely participation of non-Federal sponsor in implementation of solution
(5) scheduled activity completion date
(6) compliance with NEPA and other environmental regulations appropriate for the stage of the effort.

A-2.2. Program Description and Procedure.

a. **Project Development Process**

In General. The development of each new project or separable element will adhere to the standard project development process, as follows.

(1) **Studies**. There will be a two-phased study leading to a feasibility report in accordance with sections 905 and 105 of the Water Resources Development Act (WRDA) of 1986, as amended. A feasibility report is needed to support environmental compliance, policy review, engineering and design, and a project cooperation agreement (PCA/PPA). A feasibility report will be prepared even in those instances where the project or separable element is authorized before completion of the feasibility report. The feasibility phase will be carried out under a cost shared feasibility cost sharing agreement (FCSA), except for feasibility studies carried out before WRDA 1986 took effect, feasibility studies for inland waterway projects, and studies to dispose of or reduce costs at existing Federal projects.

(2) **Watershed Assessments. Watershed assessments are conducted in accordance with Section 729 of the Water Resources Development Act of 1986, as amended, and lead to a**

Watershed Management Plan. An initial assessment, comparable to a reconnaissance study, is

conducted at full Federal funding. This is followed by a Final Watershed Assessment leading to a Watershed Management Plan. The Final Watershed Assessment is cost-shared 75% Federal and 25% non-Federal. All of the non- Federal share may be in-kind.

(3) **Preconstruction Engineering and Design (PED)**. PED will begin after issuance of the Division Engineer's Transmittal Letter of the final feasibility report and will be carried out under a design agreement until execution of the applicable PCA/PPA. The design agreement will provide for concurrent financing of design 75 percent Federal and 25 percent non-Federal. When construction is initiated, the design costs will be folded into total project costs and the Federal and non-Federal shares will be brought into balance in accordance with the cost sharing in the applicable PCA/PPA. A design agreement is not required for the following: an inland waterway project; a dam safety assurance, seepage correction, or static instability correction project; a replacement project; deficiency correction at a Federally operated project; or a project or separable element for which the non-Federally financed portion of engineering and design during construction costs alone would exceed the total non-Federal cash share for the project or element, the non-Federal share is reduced under ability to pay rules, engineering and design during construction costs are less than $100,000, or engineering and design was initiated before FY 1997.

(4) **Budgeting**. All studies and all post-feasibility, pre-PCA/PPA engineering and design activities for new projects and separable elements that are consistent with policy will be budgeted as studies and PED, respectively, in the Investigations account or the study/design portion of the Flood Control, Mississippi River and Tributaries (MR&T) account. However, post-feasibility, pre-PCA/PPA engineering and design may be budgeted as construction in the Construction account or the construction portion of the MR&T account if the applicable project or element is authorized, is supported by the Administration for construction, and either is budgeted as a new start or has received construction appropriations.

(5) **Post-Feasibility Modifications**. Once the feasibility report has been completed for a project, additional engineering and design, economic and environmental analyses, and evaluations often result in the identification of potential project modifications. Each potential modification that is identified (whether during PED or construction) should be subjected to a reconnaissance-level examination to determine whether the modification so changes or would change project scope or functions, beyond the scope and functions described in the completed feasibility report, that it required or would require additional authorization, beyond the current authorization or the authorization contemplated in the completed feasibility report.

(a) Examination and documentation of a simple cost increase without a change in scope or functions may be undertaken as part of PED or construction. If additional authorization is required as a consequence of the simple cost increase, a Post-Authorization Change Report should be prepared.

(b) Examination and documentation of design changes that would not require additional authorization may be undertaken as part of PED or construction. However, if such design changes are material changes to the basic project features or output levels and the original project already is covered by a PCA/PPA, design of the material changes should be undertaken under a design agreement, and construction of the material changes should not be commenced until the PCA/PPA has been amended to reference an approved report that incorporates the material changes.

(c) A modification that required or would require authorization beyond the current authorization or the authorization contemplated in the completed feasibility report, and that extends, expands, or adds functions to the original project described in the completed feasibility report, is beyond the scope of the

original project. If such an added function is physically integral to the original project, the modification will be treated as a substitute plan and, if the substitute plan is pursued, work on the original project will be suspended, then concluded in an orderly manner. An extension, expansion, or physically separable added function will be treated as a new project if it is unauthorized or is separately authorized, or it will be treated as a new separable element if it is authorized as a modification to the original project. Following the reconnaissance-level examination, the substitute plan, new project, or new separable element will be developed in accordance with the standard project development process discussed above, beginning with its own feasibility study.

(d) The development of a new project (including a substitute plan) or a new separable element will not be undertaken as a "reevaluation" of the original project, and will not be funded as part of engineering and design or construction of the original project. However, once the feasibility report for a new separable element has been completed, the new separable element may be included in PED for the project along with other separable elements, and may be included in construction of the modified project if the new separable element is authorized and has received construction funds.

b. **Feasibility Studies.** This encompasses all studies, Federally funded and cost-shared, and new starts for reconnaissance phase studies. Cost sharing is not applicable to single purpose inland navigation studies on the nations inland waterways system in accordance with ER 1105-2-100, para 2-12.b.(4).

Eligibility and Selection for Funding.

(1) **New Starts**

(a) New starts include all active authorized feasibility studies which have not received an initial work allowance and are eligible for funding based on their justification or (1) was not included in the PY-1 Program or was not funded in the conference report which accompanied the PY-1 appropriation act and (2) was not funded in the conference report which accompanied the PY-2 appropriation act (Resumption). The needs to be addressed should be of broad national scope and significance and should include at least one of the following: commercial navigation; inland navigation; flood damage reduction; hurricane and storm damage reduction; ecosystem restoration, and reallocation of existing storage or addition of storage to an existing project that would increase vendible outputs where there is no construction cost to the Federal government;. Final selection for inclusion in the program will require justification on the specifics and history of the need or problem and evaluation of the extent to which the proposed effort meets the appropriate business line performance and ranking criteria. The justification should be able to demonstrate the urgency for funding of the reconnaissance phase in the PY. In addition, based on recent expression of community interest, the Division Commander should believe there is a potential sponsor for the feasibility phase, one who understands the two-phase process and who would be willing to participate. Funds to initiate a new reconnaissance study will be issued with initial FY work allowances; however, the 12-month reconnaissance phase will be measured from the date of initial obligation of funds. Proposals for new Reviews of Completed projects must be accompanied by the completed initial appraisal or reconnaissance report prepared with O&M funds.

(b) **Watershed Assessments. Watershed studies may take the form of watershed assessments in accordance with Section 729 leading to a Watershed Management Plan or feasibility studies in a watershed context, using 50-50 cost-sharing. In either case, the reconnaissance study would be fully Federally funded. Watershed assessments conducted under the authority of Section 729 of WRDA 1986, as amended, will compete as new phases. Selection will be based on how well the proposed assessments meet the key attributes of a watershed**

assessment. The initial assessment is comparable to a reconnaissance study and will be accomplished at 100% Federal cost. In accordance with Section 729, as amended, the cost sharing of the final watershed assessment will be 75% Federal and 25% non-Federal. All of the non-Federal share may be in-kind. The final watershed assessment will result in a watershed management plan. Specific criteria for distinguishing between watershed assessments and feasibility studies in a watershed context are included in the guidance for the flood, navigation and ecosystem restoration business lines. Watershed assessments should be submitted in the business line most appropriate to the specific problems and opportunities they address.

(2) **Continuing.** All active authorized continuously funded studies or previously funded cost shared studies that local interests fully support and that are judged likely to lead to implementation of a solution are eligible for funding in the PY. In addition, the study must address at least one of the needs of commercial navigation, flood damage reduction, hurricane and storm damage reduction, or ecosystem restoration. Continuing studies include feasibility studies resulting from an approved 905b reconnaissance report and a certified reconnaissance phase. These studies may be budgeted as continuing “spinoff” feasibility studies, however, they must have been clearly identified in the certified reconnaissance report to be included in the budget. When a certified reconnaissance phase identifies more than one “spin-off” feasibility study, one of those feasibility studies may carry the same PWI number as the parent reconnaissance study. Each additional “spin-off” study will be given a new PWI number and each one must be budgeted separately. Normal feasibility cost-sharing rules apply. Justification sheets should identify the original 905b authorization for continuity and to provide an audit trail. “Spin-off” feasibility studies should be clearly identified in the parent reconnaissance phase. Studies not clearly identified in the reconnaissance phase may not be considered continuing studies and will require a new start decision.

c. **Preconstruction Engineering and Design (PED).** PED is concurrently financed with non-Federal sponsors. Sponsors must assure that they understand and are ready to sign a design agreement and have funds available to finance the PED portion of the design of a project. PED will ultimately be cost shared at the rate for the project to be constructed but will be initially financed through the PED period at 25% non-Federal. Any adjustments that may be necessary to bring the non-Federal contribution in line with the project cost sharing will be accomplished in the first year of construction. There are four programs of PED.

(1) **Description.**

(a) **PED Under the Concepts of Two-phase and Cost-shared Planning.** PED that are justified and result from cost shared studies conducted under the two phase procedures may be programmed and justified as a continuing activity. Subject to the availability of funding, initial funding will be programmed in the fiscal year the feasibility report with engineering annex is completed. Normally funds will be allotted immediately after the Division Engineer's Transmittal Letter. The intent is to include PED in the Program request as continuing activities as long as the anticipated project to be recommended is in accord with current priorities and a non-Federal sponsor is ready to contribute 25% of the PED cost during PED by stating their readiness to sign a design agreement. The PED estimate will include the cost of all engineering efforts (including inflation through the PED period) that are necessary to ready the project for construction, including in most cases the plans and specifications for the first significant contract. The project data summary, Illustration A-2.5, includes a data element to distinguish PEDs in this group from the other PED types.

(b) **PED for Projects Authorized for Planning and Engineering Only.** PED for projects authorized for planning and engineering by the Water Resources Development Act of 1986 are included in this group. These projects will be Programmed for initiation of PED only after new start selection by

ASA(CW) and concurrence by OMB. By definition, the planning and engineering phase will include all work required to submit a feasibility report with engineering annex, and will be cost shared 50/50 with a non-Federal sponsor. In accordance with Section 301 of Water Resources Development Act of 1990, if the sponsor provides 50 percent of the cost of the feasibility study the design phase will be treated as cost of construction. The design phase will include all work after the feasibility phase, including the Design Documentation Report (DDR) and plans and specifications for the first significant contract, and will be cost shared according to project purpose. A non-Federal sponsor must be ready to contribute 25% of the PED cost during PED by stating their readiness to sign a design agreement. Normally, there will be no reconnaissance phase for these projects. The PED estimate will include the cost of all engineering efforts (including inflation through the PED period) that are necessary to ready the project for construction.

(c) **PED for Inland Navigation Projects.** PED for inland navigation projects will be programmed in accordance with the instructions in paragraph c(1)a above, except that it is funded 100% Federally funded.

(d) **Other PED.** PED for projects which are not adequately described by the preceding subparagraphs of section A-2.2.c. Normally, initial funding will be programmed in the fiscal year the supporting report is completed. These projects will have to compete for new start status and will not be included in a program request as a new start unless specifically approved by the ASA(CW) and concurred in by the OMB and a non-Federal sponsor is ready to contribute 25% of the PED cost during PED by stating their readiness to sign a design agreement. The PED estimate will include the cost of all engineering efforts (including inflation through the PED period) that are necessary to ready the project for construction, including in most cases the plans and specifications for the first significant contract.

(2) **Eligibility and Selection Criteria.**

(a) **New Start** must meet the following:

(1) A Division Engineer Transmittal Letter recommending the project will be issued by June of the PY, or the project was authorized for planning and engineering only by the Water Resources Development Act of 1986; and

(2) The project has net economic benefits at the current interest rate, or ecosystem restoration benefits that exceed the cost; and

(3) The primary project outputs are commercial navigation, inland navigation; flood damage reduction; hurricane and storm damage reduction; or aquatic ecosystem restoration; and

(4) There is no major unresolvable controversy or issue; and

(5) There is an identified and willing sponsor who understands and has the ability to finance PED at the 25% rate and has the ability to finance the items of local cooperation for construction.

(6) The project is in compliance with applicable environmental statutes appropriate to the current stage. Or below

(7) An Environmental Assessment/Finding of No Significant Impact has been signed, or final EIS has been filed, or final EIS supplement is scheduled for filing with EPA by August of the PY-2.

(8) Prioritization will be based on the criteria for the appropriate business line as discussed in Appendices 1-8.

(b) **Continuing projects** may be included if the following are met:

(1) there is a strong probability of implementing a solution; and
(2) the activity meets all criteria under subparagraph (a) above.

A-2.3. Program Considerations.

a. Study and PED cost estimates are to include an allowance for inflation in accordance with the instruction of paragraph 6 of this EC. The construction project cost estimated displayed in the PED portion of Illustration A-2.5 and the justification sheet will be based on 1 October of the PY-1 price level. (Do not include an allowance for inflation through the construction period).

b. Annual funding requests for new reconnaissance phase studies are to be only for the amount required to carry out the anticipated activities during that FY.

c. Submissions for funding of continuing studies and projects not included in the PY-1 program request must be accompanied by a supplemental (page 2, see paragraph A-2.4.a.) justification describing the changed conditions that now warrant inclusion of the study/project in the PY request.

A-2.4. Submission Requirements.

a. **Justification Statements.** See Table 2 of this Engineer Circular for the due dates for draft justification materials for new starts, draft justification materials for continuing work, revisions to justification materials, and final justification materials for submittal to Congress. Supporting data for each study or project in the Division's programs, that has a funding requirement in the PY, both new and continuing, contained in the final program “recommended” to Congress in support of appropriations, will consist of a Justification Sheet, two part where necessary. The mandatory first page is the Congressional Justification. See Illustrations A-2.1 through A-2.4 for format and content for new start reconnaissance phase, feasibility phase (cost shared), continuing surveys (full Federal expense), and PED. The second page, is required when funds are being requested to continue a study or project not included in PY-1 program or appropriations but proposed for funding in the PY program, is to be used to provide any additional information or expansion of data more appropriately classified as supporting data not appropriate for inclusion in the congressional justification, but may be necessary for proper and complete consideration for inclusion in the President's Program. The appropriation title and division must be typed as the first line in the body of the first page of the survey and PED justification package. Do not underline any headings. The District must be identified under the survey or PED name. Justifications for new starts and continuing studies and projects are to be submitted electronically through HQUSACE to RITs.

b. **P-2.** All studies and projects, including new starts, will be coded into the P-2 system as discussed in section 13 in the main portion of this EC. A feasibility study will use the same P-2 Project ID number as the reconnaissance study when there is only one feasibility study as a result of the reconnaissance, however, the feasibility will use a separate CW Type of Funds (ccs) identifying the phase and project purpose associated with that level of work. In the situation where more than one feasibility study results from a reconnaissance study, then a new system generated Project ID number will be provided from P-2. In addition, a PED project will use the same P-2 Project ID number as the feasibility study when there is only one project coming out of the parent study.

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ILLUSTRATION A-2.1
NEW START RECONNAISSANCE PHASE STUDY

APPROPRIATION TITLE: Investigations, Fiscal Year (PY) Division:_____

Study	Total Estimated Federal Cost $	Allocation Prior to FY (PY-1) $	Allocation FY (PY-1) $	Tentative Allocation FY (PY) $	Additional to Complete After FY (PY) $
SURVEYS - NEW (Insert Type)					
Study Name	100,000	0	0	100,000	0
EFG District					

Furnish a brief description of the study area, water resource development problems, and principle purposes of the study. For example, for flood damage prevention studies any information available on recent flood history (dates, physical and dollar losses, etc), or for navigation studies include information on use (commercial vs. recreation) cargo types and quantities if known. For ecosystem restoration studies, include information that addresses the performance components in Appendix II (do not enter the scores) and information about the physical area involved.. For all purposes, provide any pertinent information concerning coordination with Federal and state resource agencies.. Identify relationship to other project purposes if appropriate. Do not include irrelevant data such as "mild summers or harsh winters"; do include all the data that would tell why this study should be selected out of the many recommended. Also cite any matters known to be of concern to the Congress and identify the tentative local sponsor who has indicated intent to share equally in the feasibility phase cost that may follow the reconnaissance study. (There may be multiple sponsors for watershed and multi-purpose studies) Describe briefly the general scope and key areas of concern that are to be addressed in the reconnaissance study, probable solutions if this type of information is available, and the work to be performed in the program year. This paragraph should present specific arguments and evidence that it is important to initiate the study in the program year and similar evidence that makes it clear that the study and its anticipated outputs are in accord with Administration policy. The reconnaissance phase is scheduled to be completed in (Month xxxx), which is (12 or less) months after initiating the study. It is acceptable to budget for reconnaissance studies that exceed $100,000. The Justification sheet should state the date of CECW-P or RIT approval if it shows a cost above $100K or a schedule beyond 12 months.

Cite study authority. (In the event that sufficient study authority is not available to accomplish study purpose it should be so noted and a request for appropriate authority must be in progress.)

ILLUSTRATION A-2.2
COST-SHARED FEASIBILITY STUDY

APPROPRIATION TITLE: Investigations, Fiscal Year (PY) Division: _____

Study	Total Estimated Federal Cost $	Prior to Allocation FY (PY-3) $	Allocation FY (PY-3) $	Tentative Allocation FY (PY-2) $	Allocation FY (PY-1) $	Allocation (PY) $	Additional to Complete After FY (PY) $
ABCD River & Tributaries, Nothing Wash EFG District	1,200,000	170,000	150,000	200,000	130,000	200,000	350,000

Furnish a brief description of the study area, water resource development problems, and principle purposes of the study. For example, for flood damage prevention studies any information available on recent flood history (dates, physical and dollar losses, etc), or for navigation studies include information on use (commercial vs. recreation) cargo types and quantities if known. For ecosystem restoration studies address the approximate area to be restored to the extent this is known. For all purposes, address the performance criteria for the purpose as described in Appendices I-VIII. For ecosystem restoration studies do not enter the performance component scores, instead provide data reflecting the basis for the scores. Do not include irrelevant data such as "mild summers or harsh winters"; do include all the data that would tell why this study should be selected out of the many recommended. Also cite any matters known to be of concern to the Congress. Describe briefly the general scope and key areas of concern that were or are being addressed in the reconnaissance study, probable solutions, and the work to be performed in the Program year. This paragraph should present specific arguments and evidence that it is important to fund the study in the Program year and similar evidence that makes it clear that the study and its anticipated outputs are in accord with Administration policy. Provide best available sponsor information. (Name of potential or actual sponsor, dates of verbal or written commitments, scheduled or actual FCSA signing.)

Fiscal Year (PY-1) funds are being used to fully fund the reconnaissance phase at full Federal expense. If the reconnaissance report is certified to be in accord with policy, the funds requested for Fiscal Year (PY) will be used to continue into the feasibility phase of the study. The preliminary estimated cost of the feasibility phase is $2,200,000, which is to be shared on a 50-50 percent basis by Federal and non-Federal interests. A summary of study cost sharing is as follows:

Total Estimated Study Cost	$2,400,000
Reconnaissance Phase (Federal)	100,000
Feasibility Phase (Federal)	1,100,000
Feasibility Phase (Non-Federal)	1,100,000

The reconnaissance phase is scheduled for completion in September (Month and Year) (Date of signing of FCSA). The feasibility study is scheduled for completion in September (Month and Year) (Date of Division Engineer's Transmittal Letter).

ILLUSTRATION A-2.3
FULL FEDERAL EXPENSE FEASIBILITY STUDY

APPROPRIATION TITLE: Investigations, Fiscal Year (PY) Division: _____

Study	Total Estimated Federal Cost $	Allocation Prior to FY (PY-3) $	Allocation FY (PY-3) $	Tentative Allocation FY (PY-2) $	Allocation FY (PY-1) $	Allocation (PY) $	$	Additional to Complete After FY (PY)
XYX River Basin EFG District	750,000	100,000	100,000	200,000	100,000	200,000		50,000

This paragraph should describe the study area, the navigation problems and potential solutions. Results of the study to date should be covered as well as information that conveys to the reviewer (Corps, Army, OMB, or Congress) that the study and its anticipated outputs are in accord with Administration priorities.

This paragraph is to be used to describe the activities to be undertaken during the PY-1. The activities pertaining to each interim are to be clearly described.

This third paragraph is to be used to describe the activities to be undertaken in the PY.

This final paragraph will set forth the schedule for the study including completion dates (month and year) (date of Division Engineer's Transmittal Letter for each interim and the overall study.

ILLUSTRATION A-2.4
PRECONSTRUCTION ENGINEERING AND DESIGN

APPROPRIATION TITLE: Investigations, Fiscal Year (PY) Division: _____

Study	Total Estimated Federal Cos $	Allocation Prior to FY (PY-3) $	Allocation FY (PY-3) $	Tentative Allocation FY (PY-2 $	Allocation FY (PY-1) $	Allocation (PY) $	Additional to Complete After FY (PY) $
PRECONSTRUCTION ENGINEERING AND DESIGN (PED) ACTIVITIES – (Type)							
XYX River Basin EFG District	1,100,000	300,000	150,000	200,000	150,000	300,000	0

This is an example of the type of project description data to provide. For an ecosystem restoration project include area to be restored in acres, types of habitat, expected outputs and the data supporting the scores assigned for the performance components. Do not include the scores.

XWV River drains an area of about 2,114 square miles in southwest State and empties into Something Harbor. The XYZ flood plain encompasses about 1,560 acres of mostly urban development on the left bank of the XWV River. The maximum flood of record, that of December 1933, would have caused an estimated $13.4 million damages to XYZ River under October (PY-1) prices and conditions of development. A feasibility report was completed in FY 1996. The recommended project, estimated to cost $xx.x million with an estimated Federal cost of $xx.xx million and an estimated non-Federal cost of $xx.xx million, includes construction of a levee system to provide flood protection to 1,318 acres in XYZ. Pumping stations and gravity outlets with tide gates would be included to accommodate interior drainage. The average annual benefits amount to $2.7 million, all for flood control. The benefit-cost ratio is 1.2 to 1 based upon the latest economic analysis dated (Month Year). Identify project sponsor and set forth latest evidence of support. (Sponsor's must assure that they understand and are ready to sign a design agreement and have funds available to finance the PED portion of the design of a project.) PED will ultimately be cost shared at the rate for the project to be constructed but will be financed through the PED period at 25% non-Federal. Any adjustments that may be necessary to bring the non-Federal contribution in line with the project cost sharing will be accomplished in the first year of construction.

Total Estimated Preconstruction Engineering and Design Costs	$1,333,000	Total Estimated Preconstruction Engineering and Design Costs	$1,333,000
Initial Federal Share	1,000,000	Ultimate Federal Share xxx,000	
Initial Non-Federal Share	333,000	Ultimate Non-Federal Share	xxx,000

The project is authorized for construction by (Cite the construction authorization and cost sharing requirements). Fiscal Year (PY-1) funds are being utilized to continue work on the Feature Design Memorandum, including economic studies. Fiscal Year (PY) funds will be used for completion of PED in (Month and Year).

ILLUSTRATION A-2.5
PROJECT DATA SUMMARY
$000

Oracle Financial Analyzer: logged in as u4ievfv9 - Microsoft Internet Explorer

PBS Project Data Summary Report

Civil Works Project: 113000 - K6-CG BRUNSWICK HARBOR, GA
PBS Funding Level/Increment: CURRENT
Program Year: PY2008

PBS Project Data Summary Report
(Dollars in Thousands)

	Project Data Summary Table						
	GLOBAL DATA	ALLOC THRU PY-3	ALLOC FOR PY-2	ALLOC THRU PY-2	PY-1	PY	PY+1
INFORMATION SECTION:							
P2 PROJECT NAME	113000 - K6-CG BRUNSWICK ...						
EROC NAME	K6 - SAVANNAH DISTRICT						
PROGRAM CODE	N/A						
LEGACY PROJECT NUMBER	050730						
PRIMARY CONGRESSIONAL DISTRICT	GA01 - GEORGIA DISTRICT 1						
STATUS	APPROVED						
CEFMS PROJECT WORK ITEM	71D94J						
CURRENT P2 ALLOCATION/BUDGET			29,131	29,131	61,706	11,534	1
CURRENT P2 ALLOCATION/BUDGET (INFLATION ADJUSTED)			29,131	29,131	62,535	11,668	1
FUNDING SECTION:							
FEDERAL (CORPS)					19,877	10,270	0
NON-FED CASH CONTRIBUTIONS					42,658	1,397	0
TOTAL					62,535	11,668	1
SCHEDULE/MILESTONE SECTION:							

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SUB-ANNEX A-3

CECW Programmed Items

A-3.1. Program Procedure.

a. The activities covered by this sub-annex are programmed by CECW. You should assume your allowances will remain at or about the same level as PY-2 through PY+9 in preparing programming documents for the fifteen activities requiring Division response.

b. If a division is experiencing conditions that would materially affect its requirements for the activities covered, the Division Commander should submit a brief letter to HQUSACE, CECW-I outlining the changed conditions.

c. Note that there are three accounts that are similar, in that they provide the ability to respond to other entities without being either agency or project/study specific, but that serve different functions. They are Special Investigations, Interagency Water Resources Development, and Coordination with Other Water Resources Agencies. Special Investigations is for limited scope investigations, not for coordination. Interagency Water Resources Development is for coordination with others on problems that may lead to specific studies such as cost sharing or applicability of Corps programs to water resources problems. The Coordination with Other Water Resources Agencies account is for coordination with Planning Commissions, other Federal Water Resources Agencies or other entities which serve that function, on regional problems of a general nature not related to a programmed study or specific potential study. Some requests for assistance will not fit clearly into one of these three accounts, but you should be sure that, to the extent possible, such activities are programmed in the appropriate account and that activities in the three accounts are not duplicative.

A-3.2. Submission Requirements. Provide a breakdown by District for each activity listed in paragraph A-3.1, for PY-1 and PY in the format of Illustration A-3.1. The information should provide a base to develop allowances for varying program levels.

A-3.3. Special Investigations.

a. **Program Objective.** This category is for investigations of limited scope, in replying to requests from sources outside the Corps of Engineers, for information relating to unauthorized projects and other activities which have no funds, and which are not accomplished with a view toward determining whether a project can be developed. Also included is work specifically authorized by the Chief of Engineers; the review of reports and Environmental Impact Statements requested by other agencies, unless otherwise provided for; and attendance at meetings of local interests and other agencies during the preliminary stages of project investigations.

(1) The program objective specifically includes The Gulf of Mexico Program, which is an interagency effort for resolving complex environmental problems associated with man's use of the Gulf of Mexico. This program is limited to divisions and subordinate districts bordering on the Gulf of Mexico.

(2) The program objective specifically includes the Pacific Northwest Forest Case Study, which is an interagency program initiated by the White House's Council on Environmental Quality for ecosystem management of the public lands within the range of the Northern Spotted Owl.

(3) The program objective specifically includes the Chesapeake Bay program, which is an interagency program initiated by the U.S. Environmental Protection Agency, for the protection and restoration of the bay's natural resources. Work which requires Section 510 of the Water Resources Development Act of 1996 authorization is subject to the cost sharing of that authorization.

b. **Narrative Paragraph Submission.** A narrative paragraph should be submitted which describes specific investigations, studies, or tasks accomplished under this activity for the PY-3 and PY-2 to date in the format of Illustration A-3.2.

A-3.4. FERC Licensing Activities.

a. **Program Objective.** The objective of the Federal Energy Regulatory Commission licensing activities is to provide timely review of FERC license and permit applications consistent with regional and national priorities. Review is accomplished on a first come-first served basis.

b. **Eligibility.** License or permit applications are eligible for consideration if they are for new or existing non-Corps operated facilities. Review of license and permit applications which could have an effect on ongoing projects under construction or being operated by the Corps should be accomplished with available project funds.

A-3.5. **Interagency Water Resources Development.** The interagency water resources development program is for Corps of Engineers districts activities, not otherwise funded, that require coordination effort with non-Federal interests. These activities include such things as meeting with City, County and state officials to help them solve water resources problems when they have sought advice or to determine whether or not Corps programs are available and should be used to address the problems. The funds would also be used to cover costs of meeting with potential study sponsors prior to programming for study to insure they fully understand study cost sharing and to obtain an indication of their interest in participating in a future study. Funding for American Heritage River Navigators is included in this category and requirements for this effort should be separately noted and justified.

A-3.6. National Estuary Program (NEP). The NEP is an interagency planning program to develop management plans for nationally significant estuaries designated by EPA. To date, the following 28 estuaries have been designated under the program: Columbia River, WA & OR; Mobile Bay, AL; Morro Bay, CA; Charlotte Harbor, FL; Maryland Coastal Bays, MD; New Hampshire Estuaries, NH; Barnegat Bay, NJ; Puget Sound, WA; Delaware Bay, DE; Delaware Inland Bays, DE; New York/New Jersey Harbor, NY-NJ; Sarasota Bay, FL; Santa Monica Bay, CA; San Francisco Bay, CA; Galveston Bay, TX; Albemarle/Pamlico Sound, NC; Buzzards Bay, MA; Narragansett Bay, RI; Long Island Sound, CT-NY; Peconic Bay, NY; Massachusetts Bay, MA; Barataria/Terrebonne Bay, LA; and Indian River Lagoon, FL. Because of extensive Corps involvement with Federal water resources projects in the nation's estuaries and other responsibilities in waters of the U.S., the Corps has been asked to participate on the management and technical advisory committees of those NEP estuaries being studied. The requested funds will be used to cover costs of Corps field office meeting attendance, field reconnaissance, and data transfer.

A-3.7. North American Waterfowl Management Program (NAWMP). The NAWMP is an international program designed to reverse downward trends in North America's waterfowl populations by protecting and improving waterfowl habitats nationwide, particularly in 34 areas

within the United States identified as being critical to meeting NAWMP goals and objectives. Department of the Army support to the NAWMP is set forth in an agreement signed with the Department of the Interior on January 23, 1989. The Corps of Engineers has broad water resources development responsibilities and authorities, and has stewardship responsibilities for over seven million acres of water and land. Many Corps of Engineers projects contribute directly or indirectly to the habitat base for the nation's waterfowl and other wetland species. The requested funds will be used to cover costs of Corps of Engineers field office participation in field trips, interagency coordination meetings, and information transfer in response to conditions set forth in the agreement between the Department of the Interior and the Department of the Army.

A-3.8. Interagency and International Support.

a. **Program Objective.** Authorized by Section 234 of the Water Resources Development Act of 1996, this program is for activities in support of other Federal agencies or international organizations to address problems of national significance to the United States.

b. **Submission Requirements.** An illustration A-3.6 titled Interagency and International Support is required. Illustration A-3.6 is an information display with supporting narrative in the format of Illustration A-3.4. The narrative should identify the work that would be pursued with the requested fund.

A-3.9. Coordination with Other Water Resources Agencies (including Department of Agriculture, Natural Resources Conservation Service; Department of Interior, Bureau of Reclamation; and Regional Planning Commissions and Committees Programs)**.**

a. **Program Objective.** The objective of this program is to provide coordination with these agencies on water resources issues and problem areas of mutual concern that are general in nature and not part of a programmed project or study.

b. **CalFed.** The program objective specifically includes the CALFED Bay-Delta Program solution process for the development of a long -term comprehensive plan that will restore ecological health and improve water management for beneficial uses of the Bay-Delta system.

c. **Lake Tahoe Federal Interagency Partnership.** The program objective includes Corps participation in the partnership with other Federal Agencies, in accordance with Executive Order 13057 “Federal Actions in the Lake Tahoe Region”, to insure cooperation, support and synergy.

A-3.10. Planning Assistance to States.

a. **Program Objective.** The Planning Assistance to States program is carried out in accordance with the provisions of Sec. 22, PL 93-251. This public law authorizes the Chief of Engineers to cooperate with States (Commonwealths, Territories, etc.) and Indian tribes in the preparation of plans for the development, utilization, and conservation of water and related land resources of drainage basins located within the boundaries of the state. Assistance is provided on the basis of State or tribe requests. When a state or tribe is served by more than one division, the Lead Division assigned in Table 2-5, ER 1105-2-100, has the responsibility for providing data on work requested by that state or tribe. The Lead Division may further delegate that responsibility to a Coordinating District, but that Coordinating District is responsible for coordinating not only with the State or tribe, but also with the other Districts doing work for that State or tribe.

b. **Submission Requirements.** Planning assistance is coordinated and scheduled to ensure the continuation and completion of ongoing work and the timely initiation of new work requested by the States and tribes. Lead Division offices should provide a prioritized listing of all work for states and tribes under their responsibility in the format of Illustration A-3.3.

A-3.11. **International Waters Studies.**

a. **Program Objective.** This program contributes to better control, utilization, and orderly development of jointly - controlled water resources along the U.S. - Canadian boundary. It encompasses four boards and one committee established by the International Joint Commission (IJC) and in response to other U.S./Canadian cooperative efforts. IJC boards fall into two broad categories: boards of control, which are essentially permanent; and engineering or advisory boards, which are usually dissolved after completing their investigation.

b. **Eligibility.** Activities within the scope of authority of an appropriate Board or committee are eligible for funding.

c. **Submission Requirements.** An information display and supporting narrative as shown in Illustration A-3.4 is required.

A-3.12. Flood Plain Management Services (FPMS).

a. **Program Objective.** The Corps is authorized by Section 206 of the 1960 Flood Control Act, as amended, to provide information, technical assistance, and guidance, in identifying the magnitude of the flood hazard and for planning wise use of the flood plain. Direct response and assistance are provided through the FPMS program to states, Indian tribes and local governments without charge and to Federal agencies and private persons on a cost reimbursable basis.

b. **Submission Requirements.** An information table as shown in Illustration A-3.5 is required. FPMS funding requirements are to be shown for (1) District FPMS Units, (2) Quick Responses taking 10 minutes or less and provided without charge, (3) Technical Services, and (4) Special studies. An estimated cumulative number of responses to requests will be shown for Quick Responses and Technical Services. Submit two versions of Illustration A-3.5; one for the PY-2 amount and another based on capability to meet demand from state, tribal and local governments. The funding requirements for Quick Responses should not exceed two percent of the PY-2 work allowance amount. Hurricane Evacuation Study (HES) funding will be retained by HQUSACE for allotment at a later date. Full reimbursement should be required for assistance to Federal agencies and private persons. Information provided for Illustration A-3.5 should exclude all requirements for HES and for assistance to Federal agencies and private persons.

A-3.13. Hydrologic Studies.

a. **Program Objectives.** To collect and analyze basic data on hydrologic, climatologic, and river morphology for general use in connection with the Corps planning design, construction, and operation of water resource projects.

b. **Submission Requirements.** Provide a breakdown by District in the format of illustration A-3.1. Note that all activities in this class (260) should be defined and reported as follows:

(1) **261, Storm Studies.** Includes Part I and II storm studies accomplished in coordination with National Weather Service.

(2) **262, General Hydrologic Studies.** Includes generalized hydrologic analyses of rainfall - runoff relationship, flood frequency, snowmelt studies, hydrograph development and routing at selected watersheds, model calibrations in urban areas, and analyses of past floods and other studies of hydrologic nature.

(3) **263, Sedimentation Studies.** Includes all non-project sedimentation investigation activities at the Waterways Experiment Station.

(4) **264, Streamflow and Rainfall Data Collection.** This continuing program provides for installation and operation of streamflow and rainfall gages for general studies. It also provides for flood investigation activities such as investigation of hurricane surges; high water mark setting, measurement, and recordings; and rainfall bucket surveys.

A-3.14. National & International Water Resources Coordination. The national and international water resources coordination program is for Corps of Engineers activities, not otherwise funded, that require coordination effort with other agencies and governments. These activities include such things as meeting with officials to develop collaborative exchanges in complementary areas such as navigation, flood protection, coastal development, dredging and river basin management. The funds would be used to cover costs of meetings and to conduct workshops on water resource trends and decision points between the Corps and other organizations or governments. The Corps of Engineers signed a Memorandum of Agreement with the Dutch Rijkswaterstaat in May 2004 and this program would fund costs associated with sharing experiences between the two nations.

ILLUSTRATION A-3.1
DISTRICT BREAKDOWN
(Code 901-171,172,173,175,176,177,178,181,186,240,250,260)
($K)

Division: _____

Tentative Allowance
Total
DIST.-A
DIST.-B
DIST.-C etc.

PY-1
PY

SPECIAL INVESTIGATIONS
(AND)
GULF OF MEXICO PROGRAM
(AND)
PACIFIC NORTHWEST FOREST CASE STUDY
(AND)
CHESAPEAKE BAY PROGRAM
(AND)
FERC LICENSING
(AND)
INTERAGENCY WATER RESOURCES DEVELOPMENT
(AND)
AMERICAN HERITAGE RIVER NAVIGATORS
(AND)
NATIONAL ESTUARY
(AND)
NORTH AMERICAN WATERFOWL MANAGEMENT

FOR ILLUSTRATION PURPOSES ONLY
(To be typed as necessary)

ILLUSTRATION A-3.1 (Continued)
DISTRICT BREAKDOWN
(Code 901-171,172,173,175,176,177,181,186,240,250,260)
($K)

Division: _____

Tentative Allowance
Total
DIST.-A
DIST.-B
DIST.-C etc.

PY-1
PY

(AND)
INTERAGENCY AND INTERNATIONAL SUPPORT
(AND)
COORDINATION WITH OTHER WATER RESOURCES AGENCIES
(AND)
CALFED
(AND)
LAKE TAHOE FEDERAL INTERAGENCY PARTNERSHIP
(AND)
PLANNING ASSISTANCE TO STATES
(AND)
INTERNATIONAL WATER STUDIES
(AND)
FLOOD PLAIN MANAGEMENT SERVICES
(AND)
HYDROLOGIC STUDIES
SUBCLASS
PY-1
PY

FOR ILLUSTRATION PURPOSES ONLY
(To be typed as necessary)

ILLUSTRATION A-3.2
SPECIAL INVESTIGATIONS WORK ACCOMPLISHED
(Code 901-171)

Division: _____

SPECIAL INVESTIGATIONS

DISTRICT	**NARRATIVE DESCRIPTION**
A	PY-3:
A	PY-2:
B	PY-3:
B	PY-2:
etc.	

FOR ILLUSTRATION PURPOSES ONLY
(To be typed as necessary)

ILLUSTRATION A-3.3
PLANNING ASSISTANCE TO STATES
(Code 901-186)
Priority Listing
Fiscal Year_____

Lead Division: _____

Work Item Name	State	State Priority	Performing Office	Amount ($000)
1/			2/	

_____
1/ List work items in order of decreasing priority as established by the Lead Division.
2/ Priority as indicated by the State.

FOR ILLUSTRATION PURPOSE ONLY
(To be typed as necessary)

ILLUSTRATION A-3.4
INTERNATIONAL WATERS STUDIES
(Code 901-240)

Division: _____

Justification: Furnish a brief description of the Division/Districts activities and potential accomplishments relating to the functions of each board or committee. Include the associated program request for each board.

FOR ILLUSTRATION PURPOSE ONLY
(To be typed as necessary)

ILLUSTRATION A-3.5
FLOOD PLAIN MANAGEMENT SERVICES
(Code 901-250)

Division: _____

Work Item	Amount ($000)	Total # Responses/Studies
District FPMS Units	N/A	
Quick Responses	(5% Max.)	(# of responses)
Technical Services		(# of responses)
Special Studies		(# of studies)

FOR ILLUSTRATION PURPOSES ONLY
(To be typed as necessary)

ANNEX B
CONSTRUCTION AND
FLOOD CONTROL, MISSISSIPPI RIVER AND TRIBUTARIES
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SUB-ANNEX B-1

Construction And
Flood Control, Mississippi River And Tributaries
Applicability
(RCS CECW-B 13)

B-1.1. **Appropriation Title.** This annex provides guidance for preparation of the ten year request (PY through PY+9) for all new and continuing activities funded under the Construction (C) appropriation, including the Inland Waterways Trust Fund (IWTF) and Harbor Maintenance Trust Fund (HMTF), as applicable, and Flood Control, Mississippi River and Tributaries. Unless stated otherwise, any reference to the C (or I) appropriation applies to IWTF, HMTF and FC_MR&T as well as C (or I).

SUB-ANNEX B-2

CONSTRUCTION - NEW AND CONTINUING (RCS-CECW-B-13)

B-2.1. **Objective.** This subannex applies to previously unfunded and continuing construction projects, replacement projects, dam safety assurance projects, deficiency correction projects, and reimbursement projects, resumptions, and separable elements of ongoing projects funded under the C appropriation. The overall goal is to develop a 5 to 10 year construction program (PY through PY+9) consisting of projects that are cost effective, performance based (using the performance measures located in Appendices I-VIII) and complete as quickly as practicable within program constraints and consistent with current national priorities. We will adhere to Army policy and the guidance provided in the main part of the EC. Program requests should be submitted for all available new construction projects and separable elements which meet the basic eligibility criteria in Table B-2.1a and all policy compliant continuing projects and programs. These projects and separable elements will be ranked by business line managers using the performance measures and criteria found in Appendices I-VIII. Capability funding is discussed in section B 2.10.

B-2.2. **Preconstruction Engineering and Design (PED)**

a. As addressed in the Investigations Annex, PED will be carried out after the feasibility phase under a design agreement until execution of the applicable **PROJECT COOPERATION AGREEMENT/PROJECT PARTNERSHIP AGREEMENT (PCA/PPA)). (*See Definitions/Glossary Section) .** The design agreement will provide for concurrent financing of design at 75 percent Federal and 25 percent non-Federal. Upon PCA/PPA execution, design costs will be folded into total project costs and Federal/non-Federal shares will be brought into balance according to applicable cost sharing provisions of the PCA/PPA. A design agreement is not required for the following:

(1) inland waterway project;

(2) dam safety assurance, seepage correction, or static instability correction project; replacement project;

(3) deficiency correction at a Federally operated project; or

(4) project or separable element for which the non-Federally financed portion of pre-PCA/PPA engineering and design costs alone would exceed the total non-Federal cash share for the project or element, the non-Federal share is reduced under ability to pay rules, pre-PCA/PPA engineering and design costs are less than $100,000, or pre-PCA/PPA engineering and design was initiated before FY

1997.

b. **Budgeting**. All post-feasibility, pre-**PROJECT COOPERATION AGREEMENT/PROJECT PARTNERSHIP AGREEMENT (**PCA/PPA) engineering and design activities for policy compliant projects and separable elements will be budgeted as PED in the Investigations account or the sub-account of the MR&T account. However, post-feasibility, pre-PCA/PPA engineering and design may be budgeted as construction in the Construction account if the applicable project or element 1) is authorized, 2) is supported by the Administration for construction, and 3) either is budgeted as new construction or has received construction appropriations. No unauthorized work will be budgeted in the C account, except in the cases of complex projects or programs that have elements in various stages of development and for which the Administration explicitly supports budgeting for the entire project or program in the C account. If a newly authorized separable element was not included in the original review to develop the Administration's position on the original project, a review for the newly authorized separable element must be undertaken before the newly authorized separable element can be budgeted in the C account.

c. **Post-Feasibility Modifications**. Once the feasibility report has been completed for a project, additional engineering and design, economic and environmental analyses, and evaluations often result in the identification of potential project modifications. Each potential modification that is identified (whether during PED or construction) should be subjected to a reconnaissance-level examination to determine whether the modification so changes or would change project scope or functions, beyond the scope and functions described in the completed feasibility report, that it required or would require additional authorization.

(1) Examination and documentation of a simple cost increase without a change in scope or functions may be undertaken as part of PED or construction. If additional authorization is required as a consequence of the simple cost increase, a Post-Authorization Change Report should be prepared.

(2) Examination and documentation of design changes that would not require additional authorization may be undertaken as part of PED or construction. However, if such design changes are material changes to the basic project features or output levels and the original project already is covered by a PCA/PPA, design of the material changes should be undertaken under a design agreement, and construction of the material changes should not be commenced until the PCA/PPA has been amended to reference an approved decision document that incorporates the material changes.

(3) A modification that required or would require additional authorization, and that extends, expands, or adds functions to the original project described in the completed feasibility report, is beyond the scope of the original project. If such an added function is physically integral to the original project, the modification will be treated as a substitute plan and, if the substitute plan is pursued, work on the original project will be suspended, then concluded in an orderly manner. An extension, expansion, or physically separable added function will be treated as a new project if it is unauthorized or is separately authorized, or it will be treated as a newly authorized separable element if it is authorized as a modification to the original project. Following the reconnaissance-level examination, the substitute plan, new project, or newly authorized separable element will be developed in accordance with the standard project development process, beginning with its own feasibility study.

(4) The development of a new project (including a substitute plan) or a new separable element will not be undertaken as a "reevaluation" of the original project, and will not be funded as part of engineering and design or construction of the original project. However, once the feasibility report for a newly authorized separable element has been completed, the newly authorized separable element may be included in PED for the project along with other separable elements, and may be included in construction of the modified project if the new separable element is authorized and has received construction funds.

B-2.3. **New Construction.**

a. **New construction includes the following**:

- previously unfunded projects;
- previously unfunded separable elements of ongoing projects;
- resumptions of physical construction;
- previously unfunded replacement projects;
- previously unfunded deficiency correction projects

Note: that reconstruction projects require specific authorization and are developed in the same manner as other projects. Also note that previously unfunded recreation facilities and previously unfunded increments of reimbursement projects that are not covered under existing PROECT COOPERATION AGREEMENTS/PROJECT PARTNERSHIP AGREEMENTS (PCAs/PPAs) are treated as previously unfunded separable elements. All new construction candidates must undergo the critical review and meet the requirements outlined in the sub-paragraphs that follow.

b. **New construction candidates should be**:

- justified based on National Economic Development (NED) and/or National Environmental Restoration (NER) benefits
- are ready for the initiation of physical construction in the PY
- have approved M-CACES baseline cost estimates
- are strongly supported by non-Federal sponsors.

Potential new construction candidates should compare favorably to the nine eligibility criteria shown in Table B-2.1a.and ranking criteria and performance measures shown in Appendices I-VIII. High performing candidates may be recommended as new construction.

c. Each recommended new construction candidate requires submission of a decision document to serve as the basis for selection and (with the exception of inland waterway projects, most replacement and certain other projects) will require a PCA/PPA. The requirement for a decision document can be satisfied by an:

Approved feasibility report with engineering annex
General Reevaluation Report (GRR), or, in some cases, a Post-Authorization Change Report (PAC).

In negotiating the terms of the PCA/PPA, no commitments relating to a construction schedule or follow-on funding can be made to the non-Federal sponsor until after the economic analysis, if applicable, and the EDR or feasibility report with engineering annex has been approved by the MSC or HQUSACE, as applicable, the planning and policy review process has been completed by ASA(CW), the project or element has been authorized and funded, and the draft PCA/PPA has been approved by ASA(CW) (unless specifically delegated to the MSC Commander). The PCA/PPA will be executed between the non-Federal sponsor and ASA(CW) or District Commander (if delegated) prior to advertisement of the initial construction contract for the project or element.

Note: A Limited Reevaluation Report (LRR) is for updating and documenting changes to the project within the scope of a decision document and is not itself a decision document

d. A current economic analysis for each new construction candidate must be approved not earlier than 3 fiscal years prior to the fiscal year of the submission of the program request to HQUSACE CECW-I. For example, a FY 10 (PY) initial new construction program request made in June 2008 (PY-2) must have an economic analysis contained in an official report approved not earlier than October 2004 (PY-6). This analysis will be included in an approved decision document, as described in paragraph B-2.3, or in a supplemental report such as an Engineering Documentation Report (EDR), Limited Reevaluation Report, Post Authorization Change Report (PAC), or other special study report which must be approved at the appropriate level. A Design Documentation Report (DDR) is a technical document approved by a District and should not include information such as formulation of alternatives or economic analyses. After construction funds have been appropriated for such work, no further update of the economic analysis will be required during the approval process for the non-Federal sponsor's financing plan and execution of the PCA/PPA provided the PCA/PPA is approved in the PY and no significant changes which may affect economic justification have been made from the latest approved document. The same current economic analysis requirements for PCA/PPA projects apply to non-PCA/PPA projects, such as inland navigation and replacement projects, for obtaining approval to initiate construction. For older projects, and projects under continuing construction where significant changes have occurred following initiation of construction, an economic update should be performed in PY-2 for both total costs and benefits, and remaining costs and benefits to be used in continuing budget decisions.

e. Illustration B-2.1, Project Data Summary (aka “Grunt sheets”) should be developed for new projects planned for initiation of construction in the PY thru PY+9 period. The objective is to display an orderly flow of high performing, urgently needed and locally supported projects or separable elements that are in accord with current policies and priorities. Of course, the first half of the period should be consistent with the annual FYDP as well. Grunt sheets should also be prepared for:

- each dam safety assurance project or seepage or static instability correction project that they expect to “migrate” from the Dam Safety and Seepage/Static Instability Correction Program during the period PY through PY+9.
- each unprogrammed separable element which has not been reclassified to the inactive category.

Do not prepare Illustration B-2.1 reflecting initiation of work by sponsors prior to receipt of Federal funds. The projects programmed for construction in PY through PY+9 must be based on the cost estimates and schedules established for programmed studies and PED projects, as applicable. Initiation of construction should be scheduled no sooner than the fiscal year following completion of PED.

B-2.4. **Replacement Projects and Design and Construction Deficiency Correction Projects.**

a. Initial C funds, IWTF, and HMTF, as applicable, will be programmed for replacement and deficiency correction projects after applicable reconnaissance or evaluation reports have been approved by HQUSACE or MSC (under delegated authority) and coordinated with ASA(CW), as applicable, and once they meet the preliminary selection criteria in Table B-2.1a Reconnaissance or evaluation reports and planning, engineering, and design for replacement and deficiency correction projects will be funded from Operation (O&M) funds allocated for project operation and maintenance, or from inspection of completed works, in the case of a non-Federally operated and maintained project, until C funds are provided. However, no post-evaluation planning, engineering, and design for replacement and deficiency correction shall be funded until a reconnaissance or evaluation report has been approved.

b. **Replacement Projects**.

(1) Replacement projects are greater in scope than rehabilitation projects. A replacement involves the principal facility component that enables production of project output e.g. replacement of turbines and generators at hydropower plants, replacement of failing lock, recapitalizing or upgrading facilities.

(2) Rehabilitation projects are programmed in the O&M account and the M portion of the MR&T account. Rehabilitation projects are defined in Section 205 of WRDA 92 with respect to inland waterway projects, as economically justified, structural restoration of major project features that extends project life more than 2 years, or structural modifications that enhance operational efficiency, and that exceed certain cost thresholds. For budget purposes, rehabilitation project for other business lines use the same definitions. Continued maintenance may be viewed as the alternative to rehabilitation, and so rehabilitations should compete against maintenance. Also, since rehabilitations are not as large as replacements they can be programmed more easily in the Operation and Maintenance account.

b. **New Design and Construction Deficiency Correction Projects.**

(1) The project must have a reconnaissance report for approval at HQ by 1 June of PY-2 or approved by 1 August of PY-2.

(2) The proposed work must require no additional Congressional authorization.

B-2.5. **Dam Safety Assurance and Seepage/Stability Correction Program.**

a. Evaluation Reports for Dam Safety Assurance, Seepage Control and Static Instability Correction projects shall be funded under the C Dam Safety Assurance, Seepage Control and Static Instability Correction Program ("Wedge") line item. These will be studies of projects where routine (O&M funded) preliminary evaluations have found an indication of a deficiency exists that will require a decision to modify the dam or dike to reduce risks for safe operations. Operating Projects identified as Dam Safety Action Class (DSAC) I and II **(see Table B-2.1**) projects will be prioritized for FY09 Evaluation Report funding under the business line that represents the primary purpose for the Operating Project. DSAC I and II projects shall continue high priority C funding over multiple budget years, until the resultant Evaluation Report is approved by the Corps Dam Safety Officer or his designee. HQUSACE will determine funding levels for each Modification Report and justify them within the C “Wedge” account. Projects identified as DSAC III thru IV will be not be funded for Modification Reports until future budget years, following accomplishment of the Modification Reports for the DSAC I and II projects.” The Dam Safety Action Classifications (DSAC) is defined as follows:

Table B-2.1 - Dam Safety Action Classifications (DSAC)

DSAC Class Code	Definition of Classification
1	**Dams considered being critically near failure and for which urgent actions are needed to avoid catastrophe in the near-term.**
2	**Dams not critically near failure, but for which progressive failure could be initiated, or for which failure could occur, given the occurrence of a reasonably foreseeable triggering event that has a moderate chance of occurrence prior to remediation**

3	**Dams that have not been tested by design loads, have suspected deficiencies for which failure could occur under rare loading conditions.**
4	**Dams that are not declared safe because they don't meet current guidelines, but which are not considered unsafe enough to warrant heightened attention and for which remediation is considered to be quite low priority, although investigations to confirm their DSAC classification should be given normal priority.**
5	**Dams that are determined to be safe.**

b. The C Dam Safety Assurance, Seepage Control, and Static Instability Correction Program line item ("Wedge") will fund preparation of evaluation reports for all Dam Safety Assurance projects and all projects for Seepage Control or Static Instability Correction. Each study leading to a report will be in accordance with the Corps Portfolio Risk Analysis and recommendations of the Senior Oversight Group.

c. After approval of the evaluation report for a Dam Safety Assurance, Seepage Control, and Static Instability Correction project, preconstruction engineering and design work will be budgeted in the Wedge until such time as the conditions for line-item budgeting of the project as a continuing construction project have been met or line-item appropriations are provided for the project; however, Wedge funding may not be used if the project would require additional Congressional authorization. Once the conditions for line-item budgeting have been met for authorized work, initial construction also may be funded from the Wedge until line-item appropriations are provided for the project.

d. Projects that meet the following criteria at the time the budget is finalized may be budgeted for line item funding as continuing construction projects: 1) the evaluation report, including a base safety standard analysis, has been approved by the MSC Dam Safety Officer or HQUSACE CECW-CE, as applicable; and 2) the ASA(CW) has concurred in construction of the project.

e. During formulation of the budget, a project is eligible to be considered for line-item funding in the budget if the evaluation report is completed by 30 June of the PY-2, the evaluation report is approved by 31 August of the PY-2, and the ASA(CW) concurs in construction by 31 December of the PY-1. Projects not meeting these milestones should be reported in budget data as being funded in the Wedge.

f. Projects in the Wedge may be in any of the major business lines.

B-2.6. **Separable Elements of Ongoing Construction Projects and Resumptions.**

a. A separable element is a portion of a project which is physically separable from other portions of the project, and which achieves hydrologic effects or produces physical or economic benefits which are separately identifiable from those produced by other portions of the project. Construction of a separable element requires a new PROECT COOPERATION AGREEMENTS/PROJECT PARTNERSHIP AGREEMENTS (PCA/PPA)**.** Where a separable element is to be constructed and the parent project already has an executed PCA/PPA, an amendment to that PCA/PPA may be more appropriate if the separable element and parent project will be undertaken concurrently and with the same project sponsor. If an investment increment is part of an authorized project, but is useful separately from other features of the authorized project and is not covered under the already-executed PCA/PPA or PCA/PPAs for the other features, that increment will be treated as a separable element. Examples include recreation features not covered under an existing cost sharing PCA/PPA, and reimbursable work that is beyond the scope of the work covered under the existing reimbursement PCA/PPA. Investment increments that are not authorized are not separable elements of an authorized project and should be pursued as an unauthorized project in the Investigations appropriation account.

b. Previously unfunded separable elements that are not economically justified or do not have ecosystem restoration benefits sufficient for justification at the current discount rate, excluding recreation benefits and costs, must not be programmed for planning, engineering and design or construction. Planning, engineering and design and construction for separable elements that are justified at the current discount rate excluding recreation benefits and costs may be programmed in the period PY through PY+9. However, information required for PY new construction candidates must be submitted for such separable elements for the PY in which they are programmed to initiate construction**.** New separable elements, both programmed and unprogrammed, as applicable, must reflect the cost sharing and financing concepts in the Water Resources Development Acts of 1986, as amended.

c. Although funds for separable elements of ongoing construction projects are not programmed on an individual basis and are included as part of the program requests for their parent projects, each active uncompleted separable element, whether programmed or unprogrammed, must be shown individually.

d. Resumptions of physical construction are projects and separable elements that have been funded in the past and have initiated physical construction**,** but that have not been in physical construction since PY-4, except for:

- projects for which the resumption of physical construction was included in the President's budget or PY-1
- projects with natural pauses, such as for levee lifts or monitoring stages.
  Continuing planning, engineering, and design of resumptions may be programmed in the PY, but resumption of physical construction requires a new budget decision

.

e. Economic and environmental analyses supporting PY funding requests for planning, engineering and design for previously unfunded separable elements and resumptions should be presented as follows:

Costs should be updated to current price levels. Benefits should be those reported in the latest approved evaluation, e.g., EDR or reevaluation report, and must not be price indexed in any case except for specific benefit categories such as roads, bridges, and rail lines provided that these benefits do not constitute a major portion of overall benefits. The total BCR at the applicable and current discount rates will be computed in the following manner: deflate the updated project cost to the price level of the latest approved detailed economic evaluation using adjustments for price level changes experienced in the interim period. The CWCCIS and ENR indices are both acceptable for use in deflating project costs. Next, annualize the deflated project cost at each discount rate and divide the costs into the benefits which also must be annualized at each discount rate. Economic analyses supporting PY funding requests for new construction of separable elements and resumptions must be contained in an official report approved in or more recently than PY-5. In no case should the benefits be price indexed except for specific benefit categories such as roads, bridges, and rail lines provided that these benefits do not constitute a major portion of overall benefits. After a decision has been made by the Director of Civil Works and ASA(CW) to include a separable element or resumption in the PY program and construction funds have been appropriated for such work, no further update of the economic analysis will be required during the approval process for the non-Federal sponsor's financing plan and execution of the PCA/PPA provided the PCA/PPA is approved in the PY and no significant changes which may effect economic or environmental justification have been made from the latest approved document. For older projects, and projects under continuing construction where significant changes have occurred following initiation of construction, an

economic update should be performed in PY-2 for both total costs and benefits, and remaining costs and benefits to be used in continuing budget decisions.

B-2.7. **Recreation Facilities.** In accordance with the current policy on Federal funding of recreation facilities at projects under construction, additional recreation facilities will not be programmed, except for minimum facilities needed for health and safety as defined in ER 1165-2-400, unless local interests agree to provide 50 percent cost sharing and financing for their share of recreation costs and to bear 100 percent of the recreation operation and maintenance costs in accordance with the cost sharing and financing concepts in the Water Resources Development Act of 1986, as amended. However, recreation development previously approved by ASA(CW) at 100 percent Federal cost may be completed.

a. For projects where local interests have definitely declined to provide Non-Federal cost sharing, or where there is not yet a cost sharing agreement, include minimum facilities for health and safety in the project schedules, as appropriate, and include remaining recreation facilities in the unprogrammed balance to complete beyond PY+9. Construction of recreation facilities requiring a new cost sharing agreement will be considered a PY new investment decision for a new separable element and will be included on Illustration B-2.6, PY Proposed New Major Replacement and Other New Work Summary.

b. For new construction projects or separable elements, construction of recreation facilities will be considered together with the primary portion of the project or separable element as a PY new investment decision and will be included on Illustration B-2.7, New Construction Checklist.

B.2.8. **Projects Previously Funded as Construction.** PY Civil Works budget will fund four types of previously funded Construction activities in the Operation and Maintenance account. These activities are appropriately funded in the Operation and Maintenance account, both because of the nature of the work they represent and because of their integral connection to operation and maintenance. This reassignment improves accountability and oversight, reflects the full cost of operation and maintenance, and supports an integrated funding strategy for existing projects.

a. Biological Opinions: Activities necessary to comply with Biological Opinions, pursuant to the Endangered Species Act, to avoid jeopardizing listed species at existing projects. Compliance costs will be allocated among the project purposes of the operating projects.

b. Rehabilitation: Work to restore or ensure continuation of project functions or outputs. Rehabilitation of existing projects will compete for funding on a level playing field with other operation and maintenance activities. Fifty percent of the costs of rehabilitations for inland waterway projects will be derived from the Inland Waterways Trust Fund.

Section 205 of WRDA 92 defines “rehabilitation,” with respect to inland waterway projects, as economically justified, structural restoration of major project features that extends project life more than 2 years, or structural modifications that enhance operational efficiency, and that exceed certain cost thresholds. Continued maintenance may be viewed as the alternative to rehabilitation, and so rehabilitations should compete against maintenance. Also, since rehabilitations are not as large as replacements they can be programmed more easily in the Operation and Maintenance account.

c. Beneficial use of dredged material from maintenance dredging: Construction of facilities, projects or features that use maintenance dredging material. These include beneficial uses of dredged material for island and marsh creation, shore protection, and other environmental purposes pursuant to the Section 204 / 207 / 933 Continuing Authority Program and specific authorizations. These also include dredged material disposal facilities for material from maintenance dredging. Funding for the dredged material disposal facilities would be derived from the Harbor Maintenance Trust Fund.

d. Renourishment to restore sand lost from shorelines due to Federal navigation operation and maintenance:

(1) Replacement of sand lost from shores due to the operation of Federal navigation projects (navigation mitigation). This activity would be carried out pursuant to specific authorizations for shore protection projects that involve navigation mitigation, and pursuant to the Section 111 Continuing Authority Program. Funding for navigation mitigation will be derived from the Harbor Maintenance Trust Fund.

(2) Assume that FY 2009 appropriations bill language will enable funding of these activities from the Operation and Maintenance account. Proposed language may includes a provision for activities to comply with the Endangered Species Act at existing projects as well as funding for "eligible operations and maintenance" to be derived from the Harbor Maintenance Trust Fund. According to section 201 of the Water Resources Development Act of 1996, eligible operations and maintenance activities include not only harbor dredging but also the dredged material disposal facilities and navigation mitigation.

e. Construction funds will be used for Deficiency Corrections at non-federally operated and maintained projects.

B-2.9. **Cost Estimates and Inflation Factors.** Cost estimates will be based on a 1 October PY-1 price level with an allowance for inflation through the construction period assuming a Capability schedule. The inflation allowance for each project will be computed only once and will be used without recomputation for all funding level schedules

a. Uninflated Project Cost Estimates,(PCEs, PB-3s etc), must be updated to a 1 October PY-1 price level in accordance with the instructions in ER 11-2-240. Separable elements must be shown individually on the PB-3's. Federal and non-Federal cost sharing must reflect the guidance in this subannex. The cost estimates for:

- new construction projects
- replacement projects
- dam safety assurance projects
- deficiency correction projects
- resumptions
- reimbursement projects
- separable elements

must be complete and reliable to assure credibility with the project sponsor, the Administration, and the Congress.

b. **Inflated Project Cost Estimates**: Mandated inflation factors are shown on Table 1. These factors must be used to escalate future costs. Instructions for escalating estimates beyond PY+9 are provided at the bottom of Table 1. For example, Instructions for escalating project cost estimates to include an allowance for future inflation are also provided below.

(1) Develop a Capability Level schedule for each project at a 1 October PY-1 price level (Uninflated Project Cost Estimate).

(2) Do not further escalate contracts already awarded or to be awarded by 30 September PY-2.

(3) Escalate each contract to be awarded in the PY-1 and future years through its construction period in accordance with the guidance in Table 1.

(4) Escalate land acquisition, in-house planning, engineering and design costs, in-house construction management costs, and Non-Federal costs through the construction period also in accordance with the guidance in Table 1.

c. Design costs prior to receipt of C funds. Continuation of Planning and Engineering (CP&E); Effective 1 October 1985, funds obligated for CP&E are considered project costs and must be included in project cost estimates. CP&E costs obligated prior to 1 October 1985 remain excluded from project cost estimates. Advance Engineering and Design (AE&D) and Preconstruction Engineering and Design (PED): All AE&D and PED costs are considered project costs and must be included in projects cost estimates.

d. Items which are indefinite or unprogrammed will be based on a 1 October PY-1 price levels without an allowance for inflation. Indefinite or unprogrammed items include parts of projects that will very likely not be programmed due to lack of local support or other non-funding reasons, as well as all new construction candidates (see paragraph B-2.3.) that are not included in the PY program. Many items in the unprogrammed balance to complete, although currently designated as active, may eventually be deauthorized or reclassified to the deferred or inactive categories

B-2.10. **Schedules, Completion Dates, Contingencies and Funding Levels.**

a. Prepare a detailed project schedule using P2 Primavera Project Manager for each project, reflecting an unconstrained (Capability) level of funding in the PY and outyears. When the President's Budget is finalized, HQUSACE will issue guidance requesting that Primavera be updated to reflect the President's Budget.

b. A completion date for each project will be developed for the Capability Level.

- Use completion date for currently programmed work if the completion date for the entire project is indefinite.

- Use "indefinite" if planning, engineering and design is the only programmed activity and all construction work is unprogrammed.
- Show separate completion dates for initial construction and periodic renourishment dates for beach nourishment projects.

c. **Contingencies**: The methodologies in Primavera Project Manager (PM)(Base and Plug-In Methodologies in Project Architect) include separate activities on which to resource contingencies, they are:

WBS	Activity Code	Activity Description
30DS0-Construction Contract A	CON490	Budgeted Construction Contingency
30DS1-Construction Contract B	CON740	Budgeted Construction Contingency
30DV0-E&D During Construction	END6340	Budgeted E&D Contingency
31E00-S&A Prog & Proj Mgmt	SNA6640	Budgeted S&A Contingency

The contingency allowance should be varied according to the stage of planning and design. ER 1110-2-1302, annex D, shows reasonable percentage factors to be used for contingency allowances for construction and relocation features. For projects that are not programmed to complete in the PY, the project cost estimate may include appropriate contingency allowances. However, the PY request must not

include an amount for contingencies and such allowances must be distributed in the outyears in proportion to the work to which the contingencies apply. For projects that are programmed to complete in the PY, the PY request may include an appropriate, reasonable amount for contingencies. The scheduled dates on the activities in Primavera Project Manager should be used to place the resourced amount for budgeted contingency within the PY. As a project nears completion, the contingency allowance must be reduced accordingly. In no case will contingencies for completed work be included. Claim settlements and deficiency judgments in the PY and outyears will be handled in accordance with normal reprogramming procedures. PY and outyear requests must not include amounts for anticipated claim settlements or anticipated deficiency judgments.

d. **Funding level definitions are provided below**:

(1) **Initial Funding Level**. The initial level for each project or separable element is limited to: 1. For continuing contracts (the base only) amount needed for earnings (no more, no less) in PY for estimated contractor earnings on contracts funded in the PY-1 budget and continuing into PY, plus contract management, E&D during construction, and real estate activities associated with continuing construction of that project or separable element; or 2. The amount necessary to fully fund continuing contracts with a remaining balance of less than $20 million plus the associated contract management, E&D during construction, and real estate activities. Projects identified in the PY-1 budget for consideration for suspension and other projects not budgeted in PY-1 will have an Initial level of zero.

(2) **Capability Level.**

a. When developing capabilities, Districts should fully fund all contracts $20 million or less; for contracts greater than $20 million, treat them as incrementally funded (i.e. continuing contract, base bid + option, multiple year contract); when stating capabilities

b. **In addition to the optimally funded capability, provide one or two logical increments less than the optimal capability with a brief explanation of what can be accomplished at each funding increment. It is extremely important that Districts and Divisions (MSCs) carefully consider Capability Level amounts. <u>The program recommendations to OMB, the President's FY 10 budget, and the associated 5 to 10 year budget plan will be derived in part from the Capability Level.</u>**

c. Capabilities should be developed for both expenditures and obligations for each active project. These PY amounts should be loaded into the OFA "PBS Multi-Year Funding Stream" data entry form. Outyear obligation capability amounts are also entered using the OFA "PBS Multi-Year Funding Stream" data entry form.

B-2.11. **Cost Sharing.**

a. **Channels and Harbors**: Cost sharing and financing provisions are in Section 101 of the WRDA 1986, as amended. These provisions apply to a project, or separable element thereof, on which a contract for physical construction had not been awarded before 17 November 1986. Cost sharing for dredged material disposal facilities was modified by section 201 of the Water Resources Development of 1996 and applies to those facilities for which a contract for construction had not been awarded on or before 12 October 1996.

b. **Flood Control or other specified purposes**: Cost sharing and financing provisions are set out in section 103 of the WRDA 1986. Except for certain named projects specifically exempted by law, these provisions apply to a project, or a separable element, thereof, on which physical construction is initiated

after 30 April 1986**.** Section 202(a) of the WRDA 1996 amends Section 103 of WRDA 86 and increases non-Federal cost sharing for costs assigned to flood control to a minimum of 35 percent and applies to projects authorized after 12 October 1996.

c. I**nland Waterways Projects**: The Water Resources Development Act of 1986 authorizes 50 percent of the costs of construction and rehabilitation projects to be funded from the Inland Waterways Trust Fund. This includes not only new projects but also replacement, seepage control, and static instability correction projects funded in the C account, as well as rehabilitation projects funded in the Operations and Maintenance account.

d. **New Deficiency Correction projects**: At non-Federally operated and maintained projects: Cost sharing and financing will be in accordance with WRDA 1986, as amended (see paragraphs B-2.11.a. through c.), unless an exception is granted by ASA(CW) during the reconnaissance report review and approval process at Corps of Engineers operated and maintained projects: No cost sharing required unless a non-Federal sponsor has contributed toward the initial construction of the project. Payment may be required of public entities which have signed agreements with the Government, e.g. for water supply storage.

e. Dam Safety Assurance Projects (DSAP) that have not been previously programmed for construction: Cost sharing and financing will reflect a non-Federal cash contribution allocated to project purposes in accordance with Section 1203.(a) of the WRDA 1986, as amended.

f. Authorized Replacement Projects, Seepage Control Projects, and Static Instability Correction Projects: For non-inland waterway projects not requiring additional Congressional authorization costs are shared in the same manner as operation and maintenance costs. For Inland Waterway projects, see paragraph B-2.11.c.

g. **Resumptions**: Projects initiated under pre-WRDA 1986 cost sharing: cost sharing and financing will depend on the circumstances under which construction on the project was stopped. Generally, if it was at the request of, or due to action by local interests, cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, as amended will apply. However, if the project was stopped by other parties, such as in the case of a court injunction, then the originally authorized cost sharing and financing requirements will be applicable. Projects initiated under post-WRDA 86 cost sharing will be cost shared and financed in accordance with WRDA 1986, as amended.

h. **Balanced Funding**: Project schedules should assume Federal and Non-Federal funding is in balance (in terms of the respective percent shares of cash contributed on a cumulative basis) throughout the project life unless otherwise approved as part of the PCA/PPA. The exception is in the first fiscal year of construction, when Federal and non-Federal contributions will be adjusted to bring the sponsor’s total sunk and current contributions in line with its required cash percentage of obligations through that fiscal year. Credit for authorized and approved construction by the sponsor, if any, should be included in financial obligations for construction and applied toward the sponsor's required cash contribution (other than the 5 percent cash share required for structural flood control) in the year that the credit for the completed work is afforded. In all cases the schedule for obligating and expending non-Federal funds is independent of the schedule for the provision or crediting of LERRDs.

B-2.12. **Remaining Benefit-Remaining Cost Ratio (RBRCR).** Use the following guidelines to compute the RBRCR at the applicable interest rate, the current interest rate and the OMB prescribed 7% interest rate.

a. **General Guidance**:

(1) Remaining Costs. Consider anticipated Federal and non-Federal allocations and other non-Federal costs through the PY-1 as sunk, and exclude them from the RBRCR computation. The Remaining Costs shall be the Federal and non-Federal allocations as of the end of PY-1 (30 September 2009) based on the current project cost estimate and allocations from prior years and on the Presidents Budget for PY-2 in October 2008 dollars. Where the project includes completed separable elements, independent units and/or useful increments, OMRR&R costs for completed units/increments shall also be considered sunk, and only OMRR&R for remaining units/increments shall be considered in remaining project costs. The remaining costs should include any reimbursements to be paid for work already completed.

(2) Remaining Benefits. Where the project includes completed separable elements, independent units and/or useful increments, the amount of annual benefits that would be expected to accrue over the period of analysis for completed or functioning components of the total project shall be considered sunk and excluded from the RBRCR computation**.** Sunk benefits for projects that have reimbursable features should be estimated based on the reimbursable costs expended and an estimate on the amount of sunk benefits that would be associated with that level of expenditure. Remaining benefits are those that will be attainable in the PY or thereafter only if project features not completed with allocations through PY-1 are completed and operated and maintained.

(3) Review and Approval. All assumptions and computations of RBRCR, including I-PED, shall be subject to Independent Technical Review (ITR) at the District level. Rationale and documentation for determination of sunk and remaining benefits and costs must be provided to the ITR team/members and submitted along with the documentation and certification of ITR to the MSC for approval The MSC will submit the full documentation of RBRCRs to the RIT. RIT should then request the Office of Project Review (CECW-PC) to review the materials. RBRCR materials should include the specified spreadsheet that has been distributed via Budget EC and MSC lead economists, and documentation of ITR. Documentation may include comment/response/resolution papers or may include summary statements from ITR reviews describing what they reviewed, how they reviewed, and what issues were dealt with and resolve. Documentation of ITR should also include “certification” statements/signatures. It is formal, but should be commensurate with the complexity and scope. ITR should include Economist and PPM persons. ITR should consider such things as accuracy of Remaining costs, assurance that proper prior approved report is basis of benefits, proper deflation of cots, remaining construction schedule is reasonable, and IDC on remaining costs are correct. If new Economic update method was employed as being latest approved analysis, statement that MSC has approved it should be provided. Copies of any economic updates should be maintained by MSC and District and provided to HQ if requested. (Refer to Table 2 in the Main EC).

(4) The RBRCR supporting PY funding requests for new construction candidates must be based on current approved evaluations of benefits and costs contained in an official report approved in or later than PY-5 and computationally follow one of the methods outlined in paragraph B-2.12.b. In no case should the benefits be price indexed except for specific benefit categories such as roads, bridges and rail line damages provided these benefits do not constitute a major portion of overall benefits.

(5) For projects that were authorized without a formal benefit-cost analysis because monetary benefits have not been quantified, indicate the RBRCR is not applicable and the reasons why.

(6) For PY, the RBRCR’s will be computed using both the applicable rates from Table B- 2.2 and a standard discount rate of 7 percent.

b. **Alternative Methods for RBRCR**. Use one of the following methods for determining RBRCR as appropriate for the conditions and situations associated with each project. It is expected that the most commonly used method will be the Deflation of Costs method outlined below. In any case, cost savings from implementation of the project or separable element will be treated as benefits, not as offsets against implementation costs.

(1) Deflation of Cost Method. The Deflation of Cost method will generally be used for projects where the last approved economic analysis remains generally current with existing and anticipated future conditions. In this method, remaining costs are to be deflated to the date of price level basis of the last approved economic benefits analysis using the composite CWCCIS. Interest during construction will be computed for the remaining period of construction at the various interest rates and based on the anticipated remaining construction allocations. The total project cost will be annualized at the various interest rates over the appropriate period of analysis (usually 50-years). Remaining OMRR&R will also be deflated to the price level of the last approved benefit analysis and added to the annualized capital costs to determine total remaining annual costs. The total remaining annual benefits will be determined on the same price levels of the last approved economic analysis, and at the various interest rates. Then RBRCRs for the various interest rates will be computed.

(2) Economic Update Method. The Economic Update Method will consist of the district preparing an economic update of total and remaining project benefits on current price levels in accordance with an approved Economic Update Plan. The price level prevailing during PY-2 (FY 08 for the FY 10 budget) will be used to update the benefits. Remaining cost will be calculated using the steps outlined in paragraph 1 above. RBRCRs calculations using this method will then be adjusted by the deflation method outlined above. The Economic Update Method should be used for projects wherein the last approved economic analysis is old and/or otherwise no longer reflective of current and anticipated future conditions. This would be especially useful for projects that have prolonged and periodic construction activities such as levee lifts (ie. MR&T) and additions to training river control works over extended periods of time. In performing economic updates current and future development, traffic levels, fleet characteristics, residual risks, operating practices, and other relevant factors should be factored in to the analysis as appropriate to derive a reasonably accurate estimate of project benefits.

(3) Beach Re-nourishment Projects. For beach re-nourishment projects, the general assumption and calculations in the original (and last approved) economic analysis is one of needing to continue to periodic re-nourish the beach to maintain the design profile. Otherwise the estimated benefits would not be realized. Therefore, for beach re-nourishment activities, the RBRCR shall be computed in the following manner for the various project interest rates. Either the Deflation of Project Costs or the Economic Update Method outlined above may be used. However, the period of analysis for comparison of remaining costs and remaining benefits will be the remaining period of authorized Federal participation in the period re-nourishment of the project and/or applicable separable element. Remaining benefits will be considered the total annual benefits of the project after accounting for any historic and future growth in development used in the last approved economic analysis. For example, if there are 25 years remaining in authorized Federal participation in re-nourishment, the remaining construction and OMRR&R costs will be amortized over that period at the various interest rates, and compared to the annual benefits also computed at the same interest rate.

c. **RBRCR instructions and worksheets are enclosed**. RBRCR Summary Sheet, Sample Non-Beach RBRCR no IDC Spreadsheet (Table 1), Calculation RBRCR Non Beaches, Sample Beaches RBRCR no IDC Spreadsheet (Table 2), Calculation RBRCR Beach and Final Division Summary RBRCR list (Table 3)**, BCR Calculation for Budget Submittal (new Table 4)**

RBRCR Summary Sheet.doc

Non-Beach RBRCR no IDC spreadsheet.xls

Calculation RBRCR-Non Beaches.

Beaches RBRCR no IDC spreadsheet.xls

Calculation RBRCR Beaches.doc

Final Division Summary RBRCR List.

BCR Worksheet (Table 4).xls

B-2.13. **Supporting Data.** The following items must be prepared as indicated for each project for which funds are requested in the PY.

a. Prepare a detailed project schedule in P2 Primavera Project Manager (PM) for each project, reflecting an unconstrained (Capability) level of funding in the PY and outyears. The PM data must reflect the funding decisions enacted by Congress for PY-2, and a realistic expectation of PY-1 funding. All active uncompleted separable elements must be displayed separately. The PM data will be queried as needed to produce extracts and reports formerly provided by the PB-2a report.

b. Use the Performance Measure data entry forms provided by the OFA PBS module. There is a separate data entry form for each business line. The data requirements for each business line are detailed in the business line appendices.

c. Illustration B-2.1, Project Data Summary is an OFA report which will be prepared using the OFA "PBS Multi-Year Funding Stream DEF" data entry form for each continuing project or separable element, and each project or separable element expected to be recommended for new construction during the period PY through PY+9. This includes new construction projects, new replacement projects, dam safety or seepage/static instability projects continuing from the Dam Safety and Seepage/Static Instability Correction Program, new deficiency correction projects, new dredged material disposal facility projects (although these projects will not be line-item funded), resumptions, and new separable elements of projects under construction. Individual Illustrations B-2.1 prepared for programmed and unprogrammed separable elements will be rolled up into their parent projects by use of the P2 Program Code. The PY Federal and IWTF budget amounts can not be entered directly on this data entry form, but will be auto-populated from the PBS performance measure data entry forms. OFA analysis cubes can be used to provide summaries of Federal (Corps) funding requirements, Inland Waterways Trust Fund requirements, Harbor Services Fund requirements, Other Federal Agency funding requirements, Non-Federal cash contributions and other costs, and completions, from data entered into the "PBS Multi-Year Funding Stream DEF" form.

d. Illustration B-2.4, PY Justification Sheet, will be prepared for the Initial Level for each new construction project, replacement project, and dam safety assurance or seepage/static instability correction project continuing from the Dam Safety and Seepage/Static Instability Correction Program, new deficiency correction project, resumption, and new unstarted separable element of a project under construction (including new recreation facilities and new reimbursable work) which is recommended for funding in the PY. In addition, although funds for separable elements of ongoing construction projects are not programmed on an individual basis and are included as part of the program requests for their parent projects, Illustration B-2.4, PY Justification Sheet, will be prepared for each new separable element which is recommended for funding for construction in the PY.

e. Illustration B-2.6, PY Proposed New Replacement and Other New Work Summary, will be prepared to identify each new replacement project, new deficiency correction project, resumption, and new separable element of an ongoing project (including new recreation facilities and new reimbursable work) recommended for construction funding in the PY.

f. Illustration B-2.7, New Construction Checklist, will be prepared to identify PY new construction projects that are recommended in accordance with the criteria listed in Table B-2.1a.

g. Submit three copies of the document confirming compliance with basic eligibility criterion number 6 of Table B-2.1a for all recommended new construction candidates. If the recommended plan materially differs either in scope or costs (20 percent, adjusted) from the authorized plan, or from that included in the report being processed for submission to Congress, three copies of the reevaluation report justifying such deviation will be required. If copies of required reports have been sent for previous program submissions, RIT will verify the availability of these reports before requesting additional copies.

h. A reproducible map will be provided for each new construction project, new replacement project, new deficiency correction project, resumption, and new separable element of an ongoing project (including new recreation facilities and new reimbursable work) recommended for funding for construction in the PY. Furthermore, a map will be provided for each continuing dam safety project, replacement, seepage or stability correction project. For the July submission, a copy of a location or project map from a feasibility report, design memorandum, or other document will be sufficient. The July submission map must be marked in black reproducible pencil to clearly show the project and separable elements thereof, if applicable, in relation to nearby geographical features. The purpose of the map is to aid in understanding the nature of the project or separable element. See paragraph 13 d (1)(h)of the main section of the EC for specific instructions.

i. Remaining Benefit-Remaining Cost analysis per section B-2.11, for each line-item funded project or separable element is necessary, exceptions are aquatic ecosystem restoration projects, dam safety projects, and seepage / static instability correction, and replacement projects.

B-2.14. **Submission Requirements.** Copies of the following items must be submitted to HQUSACE RITs as applicable, WASH DC 20314-1000, except as noted, by the date and in the amount indicated below.

a. Project schedule and resource requirements updated in P2 Primavera Project Manager reflecting capability funding level for PY and outyears, 27 June, automated information system input, no hardcopy submission required.

b. P2 OFA “PBS Performance Measure” and “PBS Multi-Year Funding Stream DEF” (Illustration B-2.1, Project Data Summary Table). Database will close 27 June, automated information system input, no hard copy submission required.

c. Illustration B-2.4, PY Justification Sheet. The July submission must be submitted by email as a Word document. See paragraph 13 d (1)(h) of the main section of the EC for specific instructions on conversion of your justification sheets to an Adobe Acrobat 7.0 file for transmission of the Congressional submission to HQ. The appropriation title and project classification must be typed as the first line in the body and the Division, District, and project name must be typed in the 1 inch bottom margin. Do not underline any headings. Illustrations B-2.4 for continuing projects for the PY submission to Congress will be submitted as outlined in Table 2 of the main section.

d. Illustration B-2.6, PY Proposed New Replacement and Other New Work Summary, 20 July**,** 3 copies.

e. Illustration B-2.7, New Construction Checklist, 20 July, 10 copies.

f. Feasibility Report with Engineering Annex, EDR, and/or LRR or GRR for each new construction project recommended for construction funding in the PY, when requested, 3 copies.

g. A reproducible map - On 8 1/2 inch by 11 inch paper, 18 July, 10 copies. Furthermore, a map will be provided for each continuing dam safety project, replacement project, that has not been previously included in the PY-1 President's budget. Larger folded maps are no longer acceptable. **See paragraph 13 d (1)(h)of the main section of the EC for specific instructions concerning conversion of maps to an Adobe Acrobe file and format in accordance with (ER-11-2-240) for transmission of the Congressional submission to HQ.**

h. Evaluation or reconnaissance report, as applicable, for each new replacement project, new dam safety assurance project, new deficiency correction project; 15 Mar for new replacement projects, 3 copies to appropriate HQUSACE Regional Implementation Team (RIT); 20 July for new dam safety assurance projects, and new deficiency correction projects, 3 copies to appropriate HQUSACE RIT. In addition, an appropriate report must be approved by HQUSACE and ASA(CW), as applicable, or at HQUSACE for approval, as applicable, by 15 June of the PY-2 with HQUSACE and ASA(CW) approval, as applicable, expected by 1 August of the PY-2 to be considered for inclusion in the PY program as a continuing project.

i. EDR or reevaluation report for each new separable element of an ongoing project or resumption recommended for construction funding in the PY, including submission letter and subsequent forwarding and approval endorsements, 15 June, 3 copies.

j. Approved M-CACES Baseline cost estimate (summary sheets to the subfeature element level for each feature and the appropriate narrative) for each new construction project, new replacement, new dam safety assurance project, new deficiency correction project, new reconstruction project, new reimbursement project, resumption, and new separable element recommended for construction funding in the PY, 15 June, 1 copy.

B-2.15. **Adjustments to PY-1 and PY Programs.** When Congress takes action on the PY-1 appropriations bill, appropriate revisions to Division submissions will be requested.

TABLE B-2.1a

NEW CONSTRUCTION
(INCLUDING NEW SEPARABLE ELEMENTS AND RESUMPTIONS)

BASIC ELIGIBILITY CRITERIA

1. The project or separable element is authorized for construction.

2. The Administration has developed a favorable position on construction of the project or separable element, as authorized.

3. PED is fully funded by the end of the PY-1 and the PCA/PPA is on schedule to be executed and the Financing Plan approved no later than the end of the PY.

4. The Project Manager has confirmed the sponsor's understanding of its contractual and financial commitments and its ability to meet the funding requirements of the construction schedule, including balancing of its share of PED costs.

5. The project is in compliance with the applicable environmental statutes, appropriate to the current stage of implementation. An Environmental Assessment has been completed and Finding of No Significant Impact signed, or final EIS has been filed, or final EIS supplement is scheduled for filing with EPA by 1 August of the PY-2.

6. If a postauthorization change is required, only routine issues are involved which will not require Congressional authorization. If the project has an unapproved report involving a material change in project features or cost, the required change(s) recommended in the report must be scheduled for Washington level review and approval by ASA(CW), as applicable, by 1 August of the PY-2. For those projects where there are no substantial changes to the project plan presented in the feasibility report with an engineering annex approved by ASA(CW), as applicable, the feasibility report will serve as the necessary document. For all other projects, an approved EDR or GRR, as applicable, approved at the MSC (delegated decision document), HQUSACE, or ASA(CW) level, as appropriate, will be required in accordance with EC 1165-2-205, Delegation of Review and Approval Authority for Post-Authorization Decision Documents. If the economic analysis in the applicable document was approved prior to PY-5, a LRR on the project economics will be required in accordance with paragraph 10 of the main part of the EC and paragraph B-2.3.d of this subannex. The LRR may be approved by the MSC.

7. A M-CACES Baseline cost estimate has been prepared, in accordance with ER 5-1-11, with approval at the appropriate level as the basis for the subsequent work and financial flow.

8. A project management plan (PMP) has been prepared and approved.

9. No known or reasonably anticipated conditions or unresolved issues exist which might prevent either: (a) award of the first significant construction contract by the end of the PY; or (b) the start of real estate acquisition for the first significant construction contract so that the scheduled construction contract can be awarded no later than the end of the following fiscal year (PY+1) in the absence of the sponsor possessing title to the required lands and easements. Planning, engineering and design work should be far enough along in the PY so that the orderly and continuous progression of construction is assured with the scheduled award of the first construction contract.

TABLE B-2.2

APPLICABLE DISCOUNT RATES IN EFFECT
WHEN INITIAL CONSTRUCTION FUNDS WERE APPROPRIATED

Fiscal Year	Discount Rate 1/ Show on Justification Sheet	Show on Illustration B-2.1
1958	2 1/2	2.500
1959	2 1/2	2.500
1960	2 1/2	2.500
1961	2 5/8	2.625
1962	2 5/8	2.625
1963	2 7/8	2.875
1964	3	3.000
1965	3 1/8	3.125
1966	3 1/8	3.125
1967	3 1/8	3.125
1968	3 1/4	3.250
1969	3 1/4	3.250
1970	4 7/8	4.875
1971	5 1/8	5.125
1972	5 3/8	5.375
1973	5 1/2	5.500
1974	5 5/8	5.625
1975	5 7/8	5.875
1976	6 1/8	6.125
1977	6 3/8	6.375
1978	6 5/8	6.625
1979	6 7/8	6.875
1980	7 1/8	7.125
1981	7 3/8	7.375
1982	7 5/8	7.625
1983	7 7/8	7.875
1984	8 1/8	8.125
1985	8 3/8	8.375
1986	8 5/8	8.625
1987	8 7/8	8.875
1988	8 5/8	8.625
1989	8 7/8	8.875

1/ Unless the project qualifies for the 3 1/4 percent rate under the "grandfather" clause in Section 80 of the 1974 Water Resources Development Act.

TABLE B-2.2 (Continued)

APPLICABLE DISCOUNT RATES IN EFFECT
WHEN INITIAL CONSTRUCTION FUNDS WERE APPROPRIATED

Fiscal Year	Discount Rate 1/ Show on Justification Sheet	Show on Illustration B-2.1
1990	8 7/8	8.875
1991	8 3/4	8.750
1992	8 1/2	8.500
1993	8 1/4	8.250
1994	8	8.000
1995	7 3/4	7.750
1996	7 5/8	7.625
1997	7 3/8	7.375
1998	7 1/8	7.125
1999	6 7/8	6.875
2000	6 5/8	6.625
2001	6 3/8	6.375
2002	6 1/8	6.125
2003	5 7/8	5.875
2004	5 5/8	5.625
2005	5 3/8	5.375
2006	5 5/8	5.675
2007	5 3/8	5.375
2008	5 1/8	5.125
2009	4 7/8	4.875
2010	4 7/8	4.875

1/ Unless the project qualifies for the 3 1/4 percent rate under the "grandfather" clause in Section 80 of the 1974 Water Resources Development Act.

ILLUSTRATION B-2.1
PROJECT DATA SUMMARY
$000

Oracle Financial Analyzer: logged in as u4ievfv9 - Microsoft Internet Explorer

PBS Project Data Summary Report

Civil Works Project: 113000 - K6-CG BRUNSWICK HARBOR, GA
PBS Funding Level/Increment: CURRENT
Program Year: PY2008

PBS Project Data Summary Report
(Dollars in Thousands)

	Project Data Summary Table						
	GLOBAL DATA	ALLOC THRU PY-3	ALLOC FOR PY-2	ALLOC THRU PY-2	PY-1	PY	PY+1
INFORMATION SECTION:							
P2 PROJECT NAME	113000 - K6-CG BRUNSWICK ...						
EROC NAME	K6 - SAVANNAH DISTRICT						
PROGRAM CODE	N/A						
LEGACY PROJECT NUMBER	050730						
PRIMARY CONGRESSIONAL DISTRICT	GA01 - GEORGIA DISTRICT 1						
STATUS	APPROVED						
CEFMS PROJECT WORK ITEM	71D94J						
CURRENT P2 ALLOCATION/BUDGET			29,131	29,131	61,706	11,534	1
CURRENT P2 ALLOCATION/BUDGET (INFLATION ADJUSTED)			29,131	29,131	62,535	11,668	1
FUNDING SECTION:							
FEDERAL (CORPS)					19,877	10,270	0
NON-FED CASH CONTRIBUTIONS					42,658	1,397	0
TOTAL					62,535	11,668	1
SCHEDULE/MILESTONE SECTION:							

ILLUSTRATION B-2.4, PY JUSTIFICATION SHEET
(NOTE: DO NOT TYPE ILLUSTRATION HEADING ON JUSTIFICATION SHEET)

APPROPRIATION TITLE: Construction - Enter the project classification and type.

PROJECT: Enter the project name, state and whether it is new or continuing.

LOCATION: Enter a brief description of the project location, clearly identifying major landmarks, counties, and municipalities in the project vicinity.

DESCRIPTION: Enter a brief description of the plan of improvement clearly identifying major project features and differentiating between programmed and unprogrammed work. Indicate if project is part of a system. For reservoir projects, include breakdown of storage by function. Differentiate between programmed and unprogrammed work. For ecosystem restoration projects include area in acres to be restored and types of habitat. If operation and maintenance is required to maintain describe briefly what and how often – For example to keep and area as a wetland dredging will be required every 5 years. If monitoring/adaptive management is authorized or recommended in the approved report – briefly describe what is approved and the period of time involved. Note the recommended/authorized cost of these items.

AUTHORIZATION: Enter the act authorizing the project, such as: Water Resources Development Act of xxxx.

REMAINING BENEFIT-REMAINING COST RATIO: Enter the RBRCR for the project at a 7 percent discount rate (as calculated from Section B.2-11 of the Annex). If the project is substantially complete and the RBRCR is no longer meaningful, enter: Not applicable because project construction is substantially complete.

TOTAL BENEFIT-COST RATIO: Enter the benefit-cost ratio for the project at a 7 percent discount rate. For Ecosystem restoration projects briefly summarize the results of the Cost Effectiveness/Incremental Cost Analysis. If the NER plan was not authorized note this.

INITIAL BENEFIT-COST RATIO: Enter the benefit-cost ratio at the applicable discount rate and the fiscal year for which Congress appropriated initial construction funds such as: 1.11 to 1 at 5 1/8 percent (FY xxxx). Omit this item for PY new construction. Use the applicable discount rate from Table B-2.2

ILLUSTRATION B-2.4 (Continued)

BASIS OF BENEFIT-COST RATIO: Indicate the basis of the benefit-cost ratios, such as: Benefits are from the latest available evaluation approved in (month) xxxx at xxxx price levels.

SUMMARIZED FINANCIAL DATA			ACCUM PCT OF EST FED COST
(For projects with an unprogrammed balance to complete, but no future non-Federal reimbursement.)			
Estimated Federal Cost		xx,xxx,xxx	
Programmed Construction	xx,xxx,xxx		
Unprogrammed Construction	xx,xxx,xxx		
Estimated Non-Federal Cost		xx,xxx,xxx	
Programmed Construction	xx,xxx,xxx		
Cash Contributions	xx,xxx,xxx		
Other Costs	xx,xxx,xxx		
Estimated Non-Federal Cost			
Unprogrammed Construction	xx,xxx,xxx		
Cash Contributions	xx,xxx,xxx		
Other Costs	xx,xxx,xxx		
Total Estimated Programmed Construction Cost		xx,xxx,xxx	
Total Estimated Unprogrammed Construction Cost		xx,xxx,xxx	
Total Estimated Project Cost		xx,xxx,xxx	

STATUS (1 Jan xxxx)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Element A	xx	May xxxx
Element B	0	Indefinite
(For shore protection projects)		
Initial Construction	xx	Sep xxxx
Periodic Nourishment	xx	Jun xxxx
Entire Project	xx	Jun xxxx

PHYSICAL DATA

Under appropriate subheadings, enter the significant physical data on the major project facilities indicating mitigation, indicating the project scope.

ILLUSTRATION B-2.4 (Continued)

SUMMARIZED FINANCIAL DATA (Continued)		ACCUM PCT OF EST FED COST	STATUS (1 Jan xxxx)	PCT CMPL	PHYSICAL COMPLETION SCHEDULE
Allocations to 30 September PY-4	xx,xxx,xxx				
Allocation for PY-3	xx,xxx,xxx				
Allocation for PY-2	xx,xxx,xxx				
Conference Allowance for PY-1	xx,xxx,xxx				
Allocation for PY-1	xx,xxx,xxx	1/			
Allocations through PY-1	xx,xxx,xxx	xx			
Allocation Requested for PY	xx,xxx,xxx	xx			
Programmed Balance to Complete after PY	xx,xxx,xxx				
Unprogrammed Balance to Complete after PY	xx,xxx,xxx				

1/ Reflects $xxx reprogrammed to (from) the project. (Use example as applicable).

For programmed work only; remaining work is unprogrammed pending a decision to construct these features.

JUSTIFICATION: Enter an explicit and factually objective presentation of the merits of the project, i. e., an answer to the question: "Why now?" In narrative form, present your best case. The following information, when related to recent events or the current state of the economy, is more convincing than a simple recitation of facts.)

For flood projects, state the present value and type of property subject to flood damage; the average annual damages, with and without the project; the flood frequency against which protection is to be provided; the maximum flood of record; the damage sustained at that time and what it would be now; the frequency and duration of flooding; recent flood experience; and any other data which indicate the magnitude

ILLUSTRATION B-2.4 (Continued)

and severity of the flood problem and the need for protection. Include information on risk to life such as velocity and depth of flooding and amount of warning time and egress conditions. If more than 20 percent of urban flood damage prevention benefits are future benefits, explain the basis for such future benefits. In particular, estimated benefits for prevention of damages to household contents must be in accordance with the most recent CECW-P guidance. Describe the residual risk in terms of damages, population at risk, and the type of risk (rapid flooding from levee overtopping, etc). Does project directly or indirectly support future flood plain development in areas other than those near already urbanized areas or where flood plain values have been largely lost? Does it avoid, to the extent possible, the long and short term adverse impacts associated with the destruction or modification of wetlands and/or other environmental attributes?

For commercial navigation projects, discuss major commodities imported and exported; average commerce tonnage over the most recent 10-year period; savings per ton for selected commodities; availability of dredged material disposal sites; and size of ships expected to call at the port in the future.

For Ecosystem restoration discuss significance, as described in Appendix II, Table II-2-3 **paragraphs 53-65**, of the resources being restored, expected benefits and time frame for the realization of these benefits (eg – mature oak forest full benefits 10-20 yrs out), incidental benefits, and significant factors affecting the cost – such as urban. See Appendix II for other items that you may want to cover in the justification.

For water supply or hydroelectric power generation projects, specify the storage provided, and the potential sponsor(s) who has agreed to fully finance the applicable costs.

Similar specific data should be provided for other types of projects and purposes.

Identify those counties, districts, Indian reservations, or other areas which qualify as areas of "substantial and persistent" unemployment using the procedures in the Principles and Guidelines. The construction activities must be physically located in such areas in order for the benefits from employment of previously unemployed labor resources to be included in the project's justification.

Discuss the extent to which project beneficiaries have made investments other than the required items of local cooperation whose return is contingent upon completion of the Federal project.

ILLUSTRATION B-2.4 (Continued)

Include a tabular listing of annual benefits as the final item of the justification paragraph if there is more than one applicable benefit category, such as: Average annual benefits are as follows:

Annual Benefits	Amount
Benefit 1	x,xxx,xxx
Benefit 2	x,xxx,xxx
Benefit 3	x,xxx,xxx
Total	xx,xxx,xxx

FISCAL YEAR PY-1: Enter a paragraph describing how PY-1 funds are being used. The current amount is being applied as follows:

FISCAL YEAR PY: Enter a tabular explanation of how the PY funds will be used, such as: The requested amount will be applied as follows:

Initiate	$x,xxx,xxx
Initiate and complete	x,xxx,xxx
Continue	x,xxx,xxx
Complete	x,xxx,xxx
Planning, Engineering, and Design for parent project	x,xxx,xxx
Planning, Engineering, and Design for Element A	x,xxx,xxx
Planning, Engineering, and Design for Element B	x,xxx,xxx
Construction Management	x,xxx,xxx
Total	$xx,xxx,xxx

NON-FEDERAL COST: Enter a separate tabular explanation of the requirements of local cooperation included in each project cooperation agreement applicable to the project together with the associated payments during construction, reimbursements, and annual operation, maintenance, repair, rehabilitation, and replacement costs, such as: In accordance with the cost sharing and financing concepts reflected in the Water Resources Development Act of 1986, as amended, the non-Federal sponsor must comply with the requirements listed below.

ILLUSTRATION B-2.4 (Continued)

Requirements of Local Cooperation	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Separable Element A (Repeat as applicable for each separable element).		
Provide lands, easements, (and) rights of way, (add for all but navigation projects) and dredged or excavated material disposal areas, (add if appropriate) which may be reduced for credit allowed based on prior work (Section 104 of the Water Resources Development Act of 1986, as amended, or Section 215 of the Flood Control Act of 1968) after reductions for such credit have been made in the required cash payments.	x,xxx,xxx	
(Add if covered under post-1994 PCA/PPA) Participate in Project Coordination Team, conduct audits of non-Federal costs, and perform investigations of hazardous substances	x,xxx,xxx	
Modify or relocate utilities, roads, bridges (except railroad bridges), and other facilities, where necessary for the construction of the project.	x,xxx,xxx	
Pay all costs allocated to hydropower and bear all costs of operation, maintenance, repair, rehabilitation and replacement of hydropower facilities.	x,xxx,xxx	x,xxx

ILLUSTRATION B-2.4 (Continued)

Requirements of Local Cooperation (Continued)	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Pay all costs allocated to municipal and industrial water supply and bear all costs of operation, maintenance, repair, rehabilitation and replacement of municipal and industrial water supply facilities.	x,xxx,xxx	x,xxx
Pay one-half of the separable costs allocated to recreation (except recreational navigation) and bear all costs of operation, maintenance, repair, rehabilitation and replacement of recreation facilities.	x,xxx,xxx	x,xxx
Pay one-half of the separable and joint costs allocated to recreational navigation and bear all costs of operation, maintenance, repair, rehabilitation, and replacement of recreational navigation facilities.	x,xxx,xxx	x,xxx
Pay xx percent of the costs allocated to flood control to bring the total non-Federal share of flood control costs to (include one of the following) 25 percent, 35 percent, or xx percent as determined under Section 103 (m) of the Water Resources Development Act of 1986, as amended, to reflect the	x,xxx,xxx	x,xxx

ILLUSTRATION B-2.4 (Continued)

Requirements of Local Cooperation (Continued)	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
non-Federal sponsor's ability to pay, (add if appropriate) as reduced for credit allowed based on prior work (Section 104 of the Water Resources Development Act of 1986, as amended, or Section 215 of the Flood Control Act of 1968), but no less than 5 percent of the costs allocated to flood control, and bear all costs of operation, maintenance, repair, rehabilitation and replacement of flood control facilities.		
Pay xx percent of the costs allocated to fish and wildlife enhancement, and pay xx percent of the costs of operation, maintenance, repair, rehabilitation, and replacement of fish and wildlife facilities.	x,xxx,xxx	x,xxx
Pay 35 percent of the ecosystem restoration costs and bear all costs of operation, maintenance, repair, rehabilitation and replacement of ecosystem restoration facilities.	x,xxx,xxx	x,xxx
Pay 35 percent of the costs allocated to hurricane and storm damage reduction, and bear all costs of operation, maintenance, repair, rehabilitation, and replacement of hurricane and storm damage reduction facilities.	x,xxx,xxx	x,xxx

ILLUSTRATION B-2.4 (Continued)

Requirements of Local Cooperation (Continued)	Payments During Construction and Reimbursements	Annual Operation, Maintenance, Repair, Rehabilitation, and Replacement Costs
Pay (include one of the following) 35 percent or xx percent, as determined under Section 103 (m) of the Water Resources Development Act of 1986, as amended, to reflect the non-Federal sponsor's ability to pay, of the costs allocated to agricultural water supply, and bear all costs of operation, maintenance, repair, rehabilitation, and replacement of agricultural water supply facilities.	x,xxx,xxx	x,xxx
Pay xx percent of the costs allocated to general navigation facilities during construction and (add if appropriate) pay 50 percent of the costs of incremental maintenance below 45 feet below mean low water.	x,xxx,xxx	x,xxx
Reimburse an additional 10 percent of the costs of general navigation features allocated to commercial navigation within a period of 30 years following completion of construction, as reduced by a credit allowed for the value of lands, easements, rights of way, and relocations provided for commercial navigation.	x,xxx,xxx	
Total Non-Federal Costs	x,xxx,xxx	x,xxx

ILLUSTRATION B-2.4 (Continued)

The non-Federal sponsor has also agreed to make all required payments concurrently with project construction and, for general navigation, reimburse its share of construction costs within a period of 30 years following completion of construction when is this applicable? It would be good to specify.(Use example as applicable).

Note: After approval by the ASA(CW), local credit based on ability to pay (Section 103 (m) of the Water Resources Development Act 0f 1986, as amended,) or general credit for prior work (Section 104 of the Water Resources Development Act 0f 1986, as amended, or Section 215 of the Flood Control Act of 1968) must be reflected in the requirements of local cooperation as an offset to required cash contributions or, if necessary, LERRD contributions. However, any credit provided under Section 104 of the Water Resources Development Act 0f 1986, as amended, or Section 215 of the Flood Control Act of 1968 may not be used to offset the required 5 percent cash contribution.

STATUS OF LOCAL COOPERATION: Identify the non-Federal sponsor, the current status of assurances, the current status of the PCA/PPA, actions being taken by the non-Federal sponsor toward compliance with the requirements of local cooperation, contributions made, bond issues passed, or other specific items. If known, state the method by which the non-Federal sponsor intends to provide its share of the project first costs (cash and other items of local cooperation) and annual O&M costs. List all potential sources of funds (together with dollar amounts, if known) to meet local cooperation requirements, including any anticipated Federal funds for which the Federal granting agency has indicated in writing that the use of such funds for items of local cooperation is authorized. List and describe any local work or investments that have already been made or are underway which would serve to fulfill all or part of the local cooperation requirements (including work accomplished pursuant to Section 215 of the 1968 Flood Control Act or creditable under Section 104 of the 1986 Water Resources Development Act.)

In the event a PCA/PPA has not been executed by the ASA(CW), provide the scheduled month and year when the PCA/PPA is scheduled to be executed.

For projects with future non-Federal reimbursement, indicate the specific conditions which govern the initiation of non-Federal reimbursement payments and the scheduled date such reimbursement payments are scheduled to begin.

ILLUSTRATION B-2.4 (Continued)

For each project with an executed PCA/PPA, compare the approved non-Federal cost estimate in the PCA/PPA with the current non-Federal cost estimate and provide an assessment of the non-Federal sponsor's financial capability to contribute toward any increased costs and an indication of the sponsor's willingness to share in any increased costs, such as: The current non-Federal cost estimate of $8,000,000, which includes a cash contribution of $3,000,000, is an increase of $1,000,000 from the non-Federal cost estimate of $7,000,000 noted in the Project Cooperation Agreement, which included a cash contribution of $2,500,000. In a letter dated 3 March xxxx, the non-Federal sponsor indicated that it is financially capable and willing to contribute the increased non-Federal share. Our analysis of the non-Federal sponsor's financial capability to participate in the project affirms that the sponsor has a reasonable and implementable plan for meeting its financial commitment.

COMPARISON OF FEDERAL COST ESTIMATES: Enter a tabular explanation of the changes in the Federal (Corps) cost estimate from the last estimate presented to Congress to the current estimate, such as: The current Federal cost estimate of $xxx,xxx,xxx is an increase (decrease) of $xx,xxx,xxx from the latest estimate ($xxx,xxx,xxx) presented to Congress (FY xxxx). This change includes the following items.

Item	Amount
Price Escalation or De-escalation on Construction Features	$x,xxx,xxx
Design Changes	x,xxx,xxx
Additional Functions Added under General Authority	x,xxx,xxx
Authorized Modifications	x,xxx,xxx
Post Contract Award and Other Estimating Adjustments (including contingency adjustments)	x,xxx,xxx
Schedule Changes	x,xxx,xxx
Price Escalation or De-Escalation on Real Estate	x,xxx,xxx
Total	$x,xxx,xxx

ILLUSTRATION B-2.4 (Continued)

STATUS OF ENVIRONMENTAL IMPACT STATEMENT COMPLIANCE: Indicate the status of the environmental impact statement, such as: The final EIS was filed with EPA on 28 September xxxx. List other significant items such as Clean Water Act, Coastal Zone Management Act, cultural resources and Endangered Species Act compliance status if not completed at the time the EIS was filed.

OTHER INFORMATION: Indicate when funds were appropriated to initiate preconstruction engineering and design and construction, respectively, such as: Funds to initiate preconstruction engineering and design were appropriated in FY xxxx and funds to initiate construction were appropriated in FY xxxx. If the scheduled completion date for programmed work has changed from the date last presented to Congress, explain the changes, such as: The scheduled completion date of June xxxx for programmed work is a (slippage or acceleration) from the latest completion date of March xxxx presented to Congress. This change is due to ..... Also, note any problems that should be considered by the Committees which might affect the progress schedule shown in your program request, as well as your expectations for and timing of a resolution of the problems. Fish and Wildlife Mitigation costs should also be separately identified and reflected in this paragraph.

Separable Element A (Repeat as necessary for each programmed separable element.)

SUMMARIZED FINANCIAL DATA: For ongoing projects with programmed separable elements, provide a breakdown of the summarized financial data for each programmed separable element in the same format as displayed for the parent project, except that the allocations and conference allowance information is not required.

REMAINING BENEFIT-REMAINING COST RATIO: Enter the RBRCR for each programmed separable element at a 7 percent discount rate. If the element is substantially complete and the RBRCR is no longer meaningful, enter: Not applicable because construction is substantially complete. N/A for Ecosystem restoration.

TOTAL BENEFIT-COST RATIO: Enter the total benefit-cost ratio for each programmed separable element at a 7 percent discount rate. For Ecosystem Restoration projects briefly summarize the results of the Cost Effectiveness/Incremental Cost Analysis. If the NER plan is not being implemented note this and explain briefly.

ILLUSTRATION B-2.4 (Continued)

Note: The justification sheets must be typed on standard size paper, 8 1/2 inches by 11 inches, as left justified Word document at 6 lines per inch (.167 inch line height) using a landscape 10 point font (12 characters per inch); Courier or Arial are the preferred typefaces. The typed material must be confined to 6 1/2 inches vertically and 10 inches horizontally, leaving 1/2 inch margins on the left and right sides, and 1 inch margins on the top and bottom. The appropriation title and project classification must be typed as the first line in the body and the Division, District, and project name must be typed in the 1 inch bottom margin. Do not underline any headings. The July submission must be submitted by email as a Word document. See paragraph 13.d.(1).(g). of the main EC for specific instructions concerning conversion of your justification sheets to an Adobe Acrobat file for transmission of the Congressional submission to HQ.

ILLUSTRATION B-2.4 (Continued)

Additional Examples of Summarized Financial Data

For projects with no unprogrammed balance to complete, and no future non-Federal reimbursement.

Estimated Federal Cost		xx,xxx,xxx
Estimated Non-Federal Cost		xx,xxx,xxx
Cash Contributions	xx,xxx,xxx	
Other Costs	xx,xxx,xxx	
Total Estimated Project Cost		xx,xxx,xxx

For projects with both an unprogrammed balance to complete and future non-Federal reimbursement.

Estimated Total Appropriation Requirement		xx,xxx,xxx
Programmed Construction	xx,xxx,xxx	
Unprogrammed Construction	xx,xxx,xxx	
Future Non-Federal Reimbursement		xx,xxx,xxx
Programmed Construction	xx,xxx,xxx	
Unprogrammed Construction	xx,xxx,xxx	
Estimated Federal Cost (Ultimate)		xx,xxx,xxx
Programmed Construction	xx,xxx,xxx	
Unprogrammed Construction	xx,xxx,xxx	

ILLUSTRATION B-2.4 (Continued)

For projects with both an unprogrammed balance to complete and future non-Federal reimbursement (continued).

Estimated Non-Federal Cost			xx,xxx,xxx
Programmed Construction		xx,xxx,xxx	
Cash Contributions	xxx,xxx		
Other Costs	xxx,xxx		
Reimbursements	xxx,xxx		
Purpose 1	xxx,xxx		
Purpose 2	xxx,xxx		
Unprogrammed Construction		xx,xxx,xxx	
Cash Contributions	xxx,xxx		
Other Costs	xxx,xxx		
Reimbursements	xxx,xxx		
Purpose 1	xxx,xxx		
Purpose 2	xxx,xxx		
Total Estimated Programmed Construction Cost			xx,xxx,xxx
Total Estimated Unprogrammed Construction Cost			xx,xxx,xxx
Total Estimated Project Cost			xx,xxx,xxx

For projects with no unprogrammed balance to complete, but with future non-Federal reimbursement.

Estimated Total Appropriation Requirement	xx,xxx,xxx
Future Non-Federal Reimbursement	xx,xxx,xxx
Estimated Federal Cost (Ultimate)	xx,xxx,xxx

ILLUSTRATION B-2.4 (Continued)

For projects with no unprogrammed balance to complete, but with future non-Federal reimbursement (continued).

Estimated Non-Federal Cost			xx,xxx,xxx
Cash Contributions		xx,xxx,xxx	
Other Costs		xx,xxx,xxx	
Reimbursements		xx,xxx,xxx	
Purpose 1	xx,xxx,xxx		
Purpose 2	xx,xxx,xxx		
Total Estimated Project Cost			xx,xxx,xxx

For projects with an unprogrammed balance to complete, future non-Federal reimbursement, and where an additional Federal agency is involved.

Estimated Appropriation Requirement (CoE)		xx,xxx,xxx
Programmed Construction	xx,xxx,xxx	
Unprogrammed Construction	xx,xxx,xxx	
Estimated Appropriation Requirement (OFA)		xx,xxx,xxx
Programmed Construction	xx,xxx,xxx	
Unprogrammed Construction	xx,xxx,xxx	
Estimated Total Appropriation Requirement		xx,xxx,xxx
Programmed Construction	xx,xxx,xxx	
Unprogrammed Construction	xx,xxx,xxx	

ILLUSTRATION B-2.4 (Continued)

For projects with an unprogrammed balance to complete, future non-Federal reimbursement, and where an additional Federal agency is involved (continued).

Future Non-Federal Reimbursement			xx,xxx,xxx
Programmed Construction		xx,xxx,xxx	
Unprogrammed Construction		xx,xxx,xxx	
Estimated Federal Cost (Ultimate) (CoE)			xx,xxx,xxx
Programmed Construction		xx,xxx,xxx	
Unprogrammed Construction		xx,xxx,xxx	
Estimated Non-Federal Cost			xx,xxx,xxx
Programmed Constructions		xx,xxx,xxx	
Cash Contributions	xx,xxx,xxx		
Other Costs	xx,xxx,xxx		
Reimbursements	xx,xxx,xxx		
Purpose 1	xx,xxx,xxx		
Purpose 2	xx,xxx,xxx		
Unprogrammed Construction		xx,xxx,xxx	
Cash Contributions	xx,xxx,xxx		
Other Costs	xx,xxx,xxx		
Reimbursements	xx,xxx,xxx		
Purpose 1	xx,xxx,xxx		
Purpose 2	xx,xxx,xxx		
Total Estimated Programmed Construction Cost			xx,xxx,xxx
Total Estimated Unprogrammed Construction Cost			xx,xxx,xxx
Total Estimated Project Cost			xx,xxx,xxx

ILLUSTRATION B-2.4 (Continued)

For projects with no unprogrammed balance to complete, but with future non-Federal reimbursement and where an additional Federal agency is involved.

Estimated Appropriation Requirement (CoE)			xx,xxx,xxx
Estimated Appropriation Requirement (OFA)			xx,xxx,xxx
Estimated Total Appropriation Requirement			xx,xxx,xxx
Future Non-Federal Reimbursement			xx,xxx,xxx
Estimated Federal Cost (Ultimate)			xx,xxx,xxx
Estimated Non-Federal Cost			xx,xxx,xxx
Cash Contributions		xx,xxx,xxx	
Other Costs		xx,xxx,xxx	
Reimbursements		xx,xxx,xxx	
Purpose 1	xx,xxx,xxx		
Purpose 2	xx,xxx,xxx		
Total Estimated Project Cost			xx,xxx,xxx

ILLUSTRATION B-2.4 (Continued)

The funding status for projects authorized to use funds appropriated from the Inland Waterways Trust Fund will be displayed as shown below.

	GENERAL APPNS.	INLAND WATERWAYS TRUST FUNDS	ACCUM. PCT. OF EST. FED. COST
Allocations to 30 September PY-2	xx,xxx,xxx	xx,xxx,xxx	
Conference Allowance for PY-1	xx,xxx,xxx	xx,xxx,xxx	
Allocation for PY-1	xx,xxx,xxx 1/	xx,xxx,xxx 1/	
Allocations through PY-1	xx,xxx,xxx	xx,xxx,xxx	xx
Allocation Requested for PY	xx,xxx,xxx	xx,xxx,xxx	xx
Programmed Balance to Complete after PY	xx,xxx,xxx	xx,xxx,xxx	
Unprogrammed Balance to Complete after PY	xx,xxx,xxx	xx,xxx,xxx	

1/ Reflects $xxx reduction assigned as savings and slippage, and $xxx reprogrammed to (from) the project. (Use example as applicable).

ILLUSTRATION B-2.4 (Continued)

The funding status for projects authorized to use funds appropriated from the Harbor Services Fund will be displayed as shown below.

	GENERAL APPNS.	HARBOR MAINTENANCE TRUST FUNDS	ACCUM. PCT. OF EST. FED. COST
Allocations to 30 September PY-2	xx,xxx,xxx	xx,xxx,xxx	
Conference Allowance for PY-1	xx,xxx,xxx	xx,xxx,xxx	
Allocation for PY-1	xx,xxx,xxx 1/	xx,xxx,xxx 1/	
Allocations through PY-1	xx,xxx,xxx	xx,xxx,xxx	xx
Allocation Requested for PY	xx,xxx,xxx	xx,xxx,xxx	xx
Programmed Balance to Complete after PY	xx,xxx,xxx	xx,xxx,xxx	
Unprogrammed Balance to Complete after PY	xx,xxx,xxx	xx,xxx,xxx	

1/ Reflects $xxx reduction assigned as savings and slippage, and $xxx reprogrammed to (from) the project. (Use example as applicable).

ILLUSTRATION B-2.4 (Continued)

For deficiency correction projects and modifications to existing projects with no unprogrammed balance to complete and no future non-Federal reimbursement.

Original Project

Actual Federal Cost		xx,xxx,xxx
Actual Non-Federal Cost		xx,xxx,xxx
Cash Contributions	xx,xxx,xxx	
Other Costs	xx,xxx,xxx	
Total Original Project Cost		xx,xxx,xxx

Remedial Work or Project Modification

Estimated Federal Cost		xx,xxx,xxx
Estimated Non-Federal Cost		xx,xxx,xxx
Cash Contributions	xx,xxx,xxx	
Other Costs	xx,xxx,xxx	
Total Estimated Remedial or Modification Cost		xx,xxx,xxx
Total Estimated Project Cost		xx,xxx,xxx

ILLUSTRATION B-2.4 (Continued)

For deficiency correction projects and modifications to existing projects with no unprogrammed balance to complete but with future non-Federal reimbursement.

Original Project

Actual Federal Cost			xx,xxx,xxx
Actual Non-Federal Cost			xx,xxx,xxx
Cash Contributions		xx,xxx,xxx	
Other Costs		xx,xxx,xxx	
Total Original Project Cost			xx,xxx,xxx

Remedial Work or Project Modification

Estimated Total Appropriation Requirement			xx,xxx,xxx
Future Non-Federal Reimbursement			xx,xxx,xxx
Estimated Federal Cost (Ultimate)			xx,xxx,xxx
Estimated Non-Federal Cost			xx,xxx,xxx
Cash Contributions		xx,xxx,xxx	
Other Costs		xx,xxx,xxx	
Reimbursements		xx,xxx,xxx	
Purpose 1	xx,xxx,xxx		
Purpose 2	xx,xxx,xxx		
Total Estimated Project Cost			xx,xxx,xxx

ILLUSTRATION B-2.4 (Continued)

For projects with an unprogrammed balance to complete, no future non-Federal reimbursement, and where an additional Federal agency is involved.

Estimated Federal Cost (CoE)			xx,xxx,xxx
Programmed Construction		xx,xxx,xxx	
Unprogrammed Construction		xx,xxx,xxx	
Estimated Federal Cost (OFA)			xx,xxx,xxx
Programmed Construction		xx,xxx,xxx	
Unprogrammed Construction		xx,xxx,xxx	
Estimated Non-Federal Cost			xx,xxx,xxx
Programmed Construction		xx,xxx,xxx	
Cash Contributions	xx,xxx,xxx		
Other Costs	xx,xxx,xxx		
Unprogrammed Construction		xx,xxx,xxx	
Cash Contributions	xx,xxx,xxx		
Other Costs	xx,xxx,xxx		
Total Estimated Programmed Construction Cost			xx,xxx,xxx
Total Estimated Unprogrammed Construction Cost			xx,xxx,xxx
Total Estimated Project Cost			xx,xxx,xxx

ILLUSTRATION B-2.4 (Continued)

For projects which include beach nourishment with no unprogrammed balance to complete, no future non-Federal reimbursement, and where no additional Federal agency is not involved.

Estimated Federal Cost			xx,xxx,xxx
Initial Construction		xx,xxx,xxx	
Periodic Nourishment		xx,xxx,xxx	
Estimated Non-Federal Cost			xx,xxx,xxx
Initial Construction		xx,xxx,xxx	
Cash Contributions	xx,xxx,xxx		
Other Costs	xx,xxx,xxx		
Periodic Nourishment		xx,xxx,xxx	
Cash Contributions	xx,xxx,xxx		
Other Costs	xx,xxx,xxx		
Total Estimated Project Cost			xx,xxx,xxx
Initial Construction		xx,xxx,xxx	
Periodic Nourishment		xx,xxx,xxx	

ILLUSTRATION B-2.4 (Continued)

For projects which include beach nourishment with an unprogrammed balance to complete, no future non-Federal reimbursement, and where no additional Federal agency is involved.

Estimated Federal Cost				xx,xxx,xxx
Programmed Construction			xx,xxx,xxx	
Initial Construction		xx,xxx,xxx		
Periodic Nourishment		xx,xxx,xxx		
Unprogrammed Construction			xx,xxx,xxx	
Initial Construction		xx,xxx,xxx		
Periodic Nourishment		xx,xxx,xxx		
Estimated Non-Federal Cost				xx,xxx,xxx
Programmed Construction			xx,xxx,xxx	
Initial Construction		xx,xxx,xxx		
Cash Contributions	xx,xxx,xxx			
Other Costs	xx,xxx,xxx			
Periodic Nourishment		xx,xxx,xxx		
Cash Contributions	xx,xxx,xxx			
Other Costs	xx,xxx,xxx			

ILLUSTRATION B-2.4 (Continued)

For projects which include beach nourishment with an unprogrammed balance to complete, no future non-Federal reimbursement, and where no additional Federal agency is involved (continued).

Estimated Non-Federal Cost				
Unprogrammed Construction			xx,xxx,xxx	
Initial Construction		xx,xxx,xxx		
Cash Contributions	xx,xxx,xxx			
Other Costs	xx,xxx,xxx			
Periodic Nourishment		xx,xxx,xxx		
Cash Contributions	xx,xxx,xxx			
Other Costs	xx,xxx,xxx			
Total Estimated Programmed Construction Cost				xx,xxx,xxx
Initial Construction			xx,xxx,xxx	
Periodic Nourishment			xx,xxx,xxx	
Total Estimated Unprogrammed Construction Cost				xx,xxx,xxx
Initial Construction			xx,xxx,xxx	
Periodic Nourishment			xx,xxx,xxx	
Total Estimated Project Cost				xx,xxx,xxx
Initial Construction				xx,xxx,xxx
Periodic Nourishment			xx,xxx,xxx	

ILLUSTRATION B-2.4 (Continued)

For projects which include beach nourishment with an unprogrammed balance to complete, no future non-Federal reimbursement, and where an additional Federal agency is involved.

Estimated Federal Cost (CoE)				xx,xxx,xxx
Programmed Construction			xx,xxx,xxx	
Initial Construction		xx,xxx,xxx		
Periodic Nourishment		xx,xxx,xxx		
Unprogrammed Construction			xx,xxx,xxx	
Initial Construction		xx,xxx,xxx		
Periodic Nourishment		xx,xxx,xxx		
Estimated Federal Cost (OFA)				xx,xxx,xxx
Programmed Construction			xx,xxx,xxx	
Initial Construction		xx,xxx,xxx		
Periodic Nourishment		xx,xxx,xxx		
Unprogrammed Construction			xx,xxx,xxx	
Initial Construction		xx,xxx,xxx		
Periodic Nourishment		xx,xxx,xxx		
Estimated Non-Federal Cost				xx,xxx,xxx
Programmed Construction			xx,xxx,xxx	
Initial Construction		xx,xxx,xxx		
Cash Contributions	xx,xxx,xxx			
Other Costs	xx,xxx,xxx			
Periodic Nourishment		xx,xxx,xxx		
Cash Contributions	xx,xxx,xxx			
Other Costs	xx,xxx,xxx			

ILLUSTRATION B-2.4 (Continued)

For projects which include beach nourishment with an unprogrammed balance to complete, no future non-Federal reimbursement, and where an additional Federal agency is involved. (continued)

Estimated Non-Federal Cost				
Unprogrammed Construction			xx,xxx,xxx	
Initial Construction		xx,xxx,xxx		
Cash Contributions	xx,xxx,xxx			
Other Costs	xx,xxx,xxx			
Periodic Nourishment		xx,xxx,xxx		
Cash Contributions	xx,xxx,xxx			
Other Costs	xx,xxx,xxx			
Total Estimated Programmed Construction Cost				xx,xxx,xxx
Initial Construction			xx,xxx,xxx	
Periodic Nourishment			xx,xxx,xxx	
Total Estimated Unprogrammed Construction Cost				xx,xxx,xxx
Initial Construction			xx,xxx,xxx	
Periodic Nourishment			xx,xxx,xxx	
Total Estimated Project Cost				xx,xxx,xxx
Initial Construction			xx,xxx,xxx	
Periodic Nourishment			xx,xxx,xxx	

ILLUSTRATION B-2.6
PY PROPOSED NEW REPLACEMENT AND OTHER NEW WORK SUMMARY

Division:

Category and Proj or Elem Names	Total Proj Elem Cost $000	Total Fed Appn Rqmt $000	Total IWTF Appn Rqmt $000	Total HSF Appn Rqmt $000	Total Non-Fed Cost $000	RBRCR at Appl Rate 1/	Type Type of Rpt and Status 2/	Addl Cong Auth Reqd Y/N 3/	Sched PCA/PPA Exec Date Mo/Yr 4/	First Const Ct Awd Date Mo/Yr 5/	PY Divn Rcmd $000
New replacement projects											
New Deficiency Correction Projects											
Resumptions											
New Separable Elements of Ongoing Projects											
Additional Recreation Facilities											
New Increments at Reimbursable Projects											

1/ Show the RBRCR at the applicable rate. Not applicable to deficiency correction projects.

2/ Indicate the type of report (Recon, EDR, Reeval) on which the Division request is based and show the latest submission, revision, or approval action and date (month and year) with respect to MSC (delegated decision documents), HQUSACE, ASA(CW),review and approval as applicable, e.g., S Jan XX for a report that has been submitted to HQUSACE, but not yet reviewed/approved, R Feb XX for a report that has been returned to the field for revision and A Apr XX for a report that has been fully reviewed/approved by HQUSACE.

3/ Indicate whether (Y) or not (N) the project/element requires additional Congressional authorization for the proposed construction work.

4/ Show the scheduled month and year for PCA/PPA execution, e.g. Apr XX.

5/ Show the month and year of the first construction contract award for the proposed work, e.g. Jun XX.

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(To be typed as necessary)

ILLUSTRATION B-2.7
NEW CONSTRUCTION CHECKLIST

Project Name	Authorization Status 1/	Preliminary/Basic Preconstruction Engineering and Design Status 2/	Remaining Benefit/ Cost Ratio 3/	Basic Criteria Met (Yes/No) 4/	Sched PCA/PPA Exec Date Mo/Yr 5/	Selection Criteria Met (Yes/No)	Eligibility

(List all new construction projects which are recommended for construction in the PY.)

1/ Cite Authorizing Act, date of resolution for Section 201, or completion date of the Chief of Engineers report or approved EDR, LRR or GRR as appropriate.

2/ The project should not be recommended if PED will not be sufficiently complete to allow award of the first construction contract during the fourth quarter of the PY, or by the end of the PY+1 if the sponsor must acquire needed real estate, or if the M-CACES Baseline cost estimate or the PMP has not been approved. Planning, engineering and design should be far enough along in the PY so that the orderly and continuous progression of construction is assured with the programmed award of the first construction contract.

3/ Based on applicable rate (cite discount rate and approval date of last approved economic analysis in parentheses after BCR). Footnote projects where authorization is not based on formal benefit/cost evaluation.

4/ Projects having an unapproved Reevaluation Report involving a significant change in project scope or cost or for addition of fish and wildlife mitigation measures will not meet the basic criteria unless the required change(s) recommended in the Reevaluation Report are scheduled for approval by ASA(CW) by 1 August of the PY-2.

5/ Show the scheduled month and year for PCA/PPA execution, e.g. Apr XX.

FOR ILLUSTRATION PURPOSES ONLY
(To be typed as necessary

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SUB-ANNEX C-1

Operation and Maintenance

C-1.1. **Appropriation Title.**

a. This annex provides guidance for preparation of the program request for all Operation and Maintenance activities under the appropriation titles: Operation and Maintenance (O&M) and Flood Control, Mississippi River and Tributaries, Maintenance (MR&T) for the Program Fiscal Year.

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b. This appropriation funds operation, maintenance, and related activities at the water resources projects that the Corps operates and maintains. Work to be accomplished consists of dredging, maintenance, repair, and operation of structures and other facilities, as authorized in the various River and Harbor, Flood Control, and Water Resources Development Acts.

SUB-ANNEX C-2

Project Operation and Maintenance

C-2.1. **Purpose and Scope.** This sub-annex provides policy and general procedural guidance for developing programs for the Project Operation and Maintenance (O&M), and National Emergency Preparedness programs. To provide a general framework and uniform approach for program development and justification, four funding increments have been identified. The various work items have been grouped by Work Category Code (WCC) for purposes of defining the appropriate funding increment. Guidance concerning automated data requirements for submittal of program recommendations is contained in paragraph 13 of the main body of the EC.

C-2.2. **Program Development Principles**.

a. **General Philosophy.** The Operation and Maintenance program path forward will incorporate new approaches to better reflect the performance outputs of the projects and a management philosophy that looks at the inter-relationships of the projects across business lines, within systems and for a long-term horizon. The key components of this new approach include:

Use of a Systems approach, the linking of projects by Systems
Mission performance
Risk and Reliability, condition and consequences
Five Year Development Plan
Five Year Infrastructure Management Plans

(1) These areas of interest have been addressed in prior budget ECs but more and better use of such tools is needed to realize efficiencies of employing these management tools in our budgeting and program execution. Our program plans must be rolled up and examined holistically from a system and/or regional perspective to ensure consistent reliability, goals, mission execution, lowest sustainable investment levels and acceptable or shared risk levels are considered. The goal is to place all the projects on the same basis for the establishment of priorities based on benefits and risks.

(2) The O&M program should be developed from an asset management perspective which incorporates an emphasis on long range planning and return of value to the nation through the 5 year funding stream and Five Year Infrastructure Management Plans. The 5 year funding stream represents a comprehensive assessment of total investment requirements from all appropriation account (Investigations, Construction and Operation & Maintenance) while the Infrastructure Management Plans are currently focused on O&M program requirements. It is in the national interest for the Corps of Engineers to ensure reliable mission achievement at our operating projects in order to return value back to the nation. The projects were built to meet a national need through prioritized investment of Federal funds. In recognition of this, the Corps of Engineers maximizes the value return to the nation by ensuring reliable performance, and maximum sustainable operating life at the lowest sustainable level of investment.

(3) The 5 year funding stream and Five Year Infrastructure Management Plans represent the collective technical judgment of the Operation & Maintenance Community of Practice, Business Line Managers, and the Engineering & Construction Community of Practice with regard to optimal asset replacement cycles, and best operation and maintenance practice. Investment requirements are

informed by asset condition assessments and failure risk assessments which affect estimates of remaining equipment life, future maintenance and repair requirements and re-capitalization plans. Equipment condition, failure risk and replacement cycles affect the O&M requirements and should be accounted for within Five Year Infrastructure Management Plans. Asset life extension through prudent O&M practice can provide return to the nation beyond the originally expected life of the project and serves the public interest. In addition, ensuring that our stewardship of these assets is accomplished at the lowest sustainable investment level maximizes the net value returned from our missions.

(a) Established Criteria is defined as the standard with specific guidelines which are formulated by the Administration which clarify and describe "justified levels of service."

(b) Justified Level of Service is defined as the delivery of a supportable and defendable amount or degree of project benefits consistent with authorization, use, and administration policies.

(c) Lowest Sustainable Investment is defined as the lowest investment level that a prudent manager would select, balancing between short and long term economics and considering overall availability of resources. Sustainability is key in that we still ensure the project meets or exceeds project life expectations and meets or exceeds changing environmental requirements for compliant operation.

b. **Budgeting by Systems.** The O&M plan to date has grouped individual projects by “basin codes” for geographically defining projects into regions. The Systems approach further refines the collection into systems that are functionally based. The hierarchy of order are the Systems with the Hydrological Unit Code (HUC) sub-regions assigned to the Systems. The initial set of Systems has been developed to consider the multiple purpose aspects of the O&M program. The National Academy of Public Administration’s report “Prioritizing America’s Water Resources Investments: Budget Reform for the Civil Works Construction Projects” illustrated that our individual project budget approach would not adequately address system failure of the New Orleans levee system because only a few levees failed while the majority of pieces of the system were effective…the weakest link concept. On a positive note, a system analysis could achieve contract efficiencies not realized in an individual project approach. The program is to be formulated on less consolidated projects or systems than previously presented. The 21 USGS Regions presented in FY07-08 are too broad for this purpose. **See Table C-5.1** for the O&M Systems that will be used in the PY**.** We will continue to assign projects to a HUC Sub-Region using the 4-digit code. The HUC Sub-Regions have been assigned within the initial list of O&M Systems that are further aggregated into 14 regions.

(1) The Systems have been developed using a standard, rational, logical approach, considering all business purposes.

(2) Each System has the HUC sub-regions assigned. Some HUC sub-regions are included in more than one System. All projects in a HUC sub-region do not have to be assigned to one System, but should be assigned to the System that it belongs**.**

(3) The end result is a set of Systems for O&M, with the HUC sub-regions and Corps of Engineers O&M projects assigned.

(4) “Regions” have also been associated with the Systems to allow greater aggregation. These regions generally match the RBCs.

c. **Five and Ten Year Plans.** Basic design criteria for water resources improvements generally include estimates of repair and replacement frequency and effective project life. Major costs such as

spillway gate replacements, navigation lock gate replacements, hydroelectric power generator rewinding and turbine replacement certainly need to be anticipated. Construction completion schedules for additional projects coming on line also need to be incorporated within O&M budgets (in some cases re-capitalization replaces equipment with better technology that requires lower O&M needs, but may not be as robust and therefore shortens re-capitalization cycles). However many projects in the Corps inventory are long past their design life. A strategy to formulate long range maintenance funding plans must take into account unforeseen risk from fluctuations in weather conditions such as hurricanes and other major storms which often impose sudden, unanticipated requirements for maintenance and service restoration. Prediction of operational requirements requires consideration of equipment condition assessments, shifting public needs or areas of emphasis, geographic shifts driven by regional trends in commercial activity and other economic factors. And, finally, national priorities for federal investments are subject to frequent and radical fluctuations. Accordingly, the 5 year funding stream and Five Year Infrastructure Management Plans must not only be developed as a project-specific long-range plan, but also be based on sub-plans recommended by business lines. In addition, these project plans must be rolled up and examined holistically from a regional and/or system perspective to ensure consistent reliability goals, mission execution, lowest sustainable investment levels and acceptable or shared risk levels are taken into consideration.

d. **Mission and Systems Performance.** Our budget and system performance plans must account for performance output dependencies. For example, closure of one lock in a system would affect other lock passages or reservoir operations on one project could affect other downstream reservoirs. Consideration of systems in the operation and functioning of our projects will achieve better service to the public**.**

e. **Risk and Reliability**: – Relative Risk Matrix (RRM)**.** Project performance is not a consistent assured output. Project conditions have inherent risk and reliability that affect the performance outputs. The FY08 budget EC required a first cut at assigning a risk evaluation of our budget packages. The risk and consequence evaluation methodology should be based, similar to that done for Dam Safety analyses, in the evaluation of facility conditions (risk) against the consequence of failure (consequence or performance). A Relative Risk Matrix would allow a consistent approach to risk/consequence. Work packages to preclude failure of high consequences would be readily apparent. This matrix would assist in the prioritization of work/budgeting. The analysis is to propose common, risk-based economic and life safety metrics for projects that protect life and property. These should be consistent with the construction program's dam safety assurance projects, dam and levee seepage control projects, static instability correction projects, and deficiency correction, reconstruction, and new construction projects for flood and coastal storm damage reduction efforts. The goal is to place all the projects on the same basis for the establishment of priorities based on benefits and risk.

f**. Infrastructure Management Plan.** The Infrastructure Management Plan (IMP) brings the management tools above together in laying out prioritized risk and performance based work over a short and long term to achieve desired end-state performance metrics. The synergy of system development could require budgeting certain tasks in the same timeframe. For instance dredging contracts for projects A and B could be advertised together if conducive to a joint solicitation to obtain better bids or electrical panels in two nearby reservoirs could be more optimally scheduled. The management plans should also lay out periodic dredging requirements that can be projected for out-year budgets to assure annual system outputs and stakeholder buy-ins (recognizing budgetary rules and inability to commit to future budgets). This could identify a higher budgetary priority and more system outputs for lower use projects that require infrequent investments. For example, a project with 400,000 tons moved annually but dredged every 5 years could be a better investment than a project with higher annual tons but dredged each year. For example, for Navigation the plans would include all harbor maintenance work that is

justified by the resulting commercial transportation savings or by benefits to subsistence use, public safety, or public transportation as described in the Navigation appendix. The IMP is to cover the period FY 2010-2014 and be modified annually for subsequent budget submittals. The Infrastructure Management Plan will be consistent with the 5 year funding stream including the PY Budget Request. The Infrastructure Management Plan will be based on sub-plans developed by Business Line Managers for six primary missions (Flood & Storm Damage Reduction, Navigation, Environmental Stewardship, Water Supply, Hydropower, and Recreation). The Infrastructure Management Plan should be jointly developed and improved within the Operations Community of Practice. The Infrastructure Management Plan must reflect sound engineering, construction, operation and maintenance state of practice (reliability centered maintenance, condition assessments, equipment mortality studies, predictive maintenance, etc.) and continually honed to achieve the lowest sustainable O&M investment level. Accelerated replacement cycles within the 5 year funding stream may affect O&M needs within the Infrastructure Management Plan (i.e. replacement versus continuing high outage and repairs on failing equipment). The O&M budget submission should be consistent with the 5 year funding stream and the Infrastructure Management Plan. The 5 year funding stream and Infrastructure Management Plan both reflect planned investments for a long range five year period.

(1) For PY, each MSC will develop IMPs for their Systems. **The Template for O&M IMP and the IMP MSC Three-Year Submission Schedule are enclosed.**

(2). IMPs will be developed for the O&M Systems implemented in this EC. Each IMP will identify the current performance level or target and the 5 year end-state performance target. Ultimately, the overall end-state performance could be beyond the five-year planning horizon. For example, it may take more than five years to reach the target of reducing unscheduled closures at a navigation lock. The IMP should consider the various business activities performed within the System. Each Business Line will have a section to itself, and the IMP will have a summary section addressing comprehensive O&M activities. The relationships of the different business lines to each other should be addressed. For example, the dam at a project not only serves to create a navigation pool, but it is also used for municipal water supply and for water-based recreational opportunities. The IMP will include the major assets or features of the System and the relationship of the assets to the business lines. It will include the performance metrics and targets for the different business lines. The IMP will identify the risk and reliability factors for the major assets based on the different business lines condition assessments, with the condition and consequences addressed. The IMP will address different funding scenarios, such as a likely level to maintain the current condition, an optimal level to begin addressing the most critical items to begin increasing performance, and a “recommended” or elevated level to address critical condition needs, to buy down risk at a faster rate. The funding will be tied to achieving the targeted end-state for performance for the five years. The IMP will include stakeholder coordination and expectations. The MSCs will coordinate with other MSCs if required. For example, the IMP for the Mississippi River should address the relationship and impacts of the Missouri River as it is a provider of water flow to that waterway.

(3). MSCs will present to HQUSACE and ASA(CW) their individual IMPs.

IMP Template/MSC 3 Yr Schedule.doc

g. **Dam Safety**. Most dam safety related work items are below. Site specific conditions must be considered when determining costs for each project, following collaboration between the District Dam Safety and Operations experts. The table is a guide to cover many recurring dam safety program activities. However, it is not a comprehensive list and additional dam safety work items may be programmed.

(1) O&M funded dam safety actions shall be prioritized based on risk. Budgeted dam safety items consider the performance history, potential failure modes, and severity of adverse consequences associated with each operating project.

(2) Routine dam safety monitoring, inspections, instrumentation data collection, instrumentation maintenance, surveys, training, Emergency Action Plan Updates, spillway and outlet works gate lubrication and testing, and dam safety exercises shall be budgeted to ensure safe operations. A higher standard of care is warranted for projects that have known dam safety deficiencies, or because of their inherent characteristics (reservoir size, construction methods, geographic setting, etc.) pose unacceptable life safety risks to the public. Implementation shall be reported to HQ quarterly via the Dam Safety Program Management Tools. Care must be taken to properly budget using existing Work Category Codes (WCCs) to allow accurate tracking of routine dam safety budgeting and expenditures, severable from the overall project operating costs.

(3) Dam Safety Interim Risk Reduction Measures (IRRM) Plans and Approved Interim Risk Reduction Measures. Effective 31 May 2007 USACE issued new guidance to develop IRRM Plans for DSAC 1, 2, and 3 projects, and implement actions to reduce the probability and consequences of catastrophic failure to the maximum extent that is reasonably practicable while long term remedial measures are pursued. Funding for IRRM Plan preparation and implementation will be from the O&M account for the project. Critical Dam Safety Interim Risk Reduction Measures, including updating Emergency Action Plans and Conducting Emergency Exercises will be included and prioritized based on the DSAC classifications and program implementation guidance. The IRRM work will be recorded in the proper Operation WCCs or Maintenance WCCs, depending on the nature of the activity.

(4) Periodic Assessments, which expand the scope of our currently scheduled Periodic Inspections, will be initiated in FY10. Approximately one half of the Periodic Inspections (PIs) normally scheduled for FY10 will be expanded with new requirements to add Potential Failure Mode Analysis and Risk Assessment in FY10. For initial PAs, Districts must distinguish the projects selected for PIs in their remarks, and budget for additional data collection and technical and administrative support as part of the PI costs

(5) Operating projects which have been evaluated under the Screening for Portfolio Risk Assessment (SPRA) process shall identify the Dam Safety Action Classification assigned by HQUSACE. **See ANNEX B CONSTRUCTION AND FLOOD CONTROL, MISSISSIPPI RIVER AND TRIBUTARIES - Dam Safety Assurance & Seepage/Stability Correction Program, paragraph B-2.5, Table B-1 for *DSAC* definitions.**

<u>Dam Safety Work Items/Activity:</u>
Minimum Instrumentation Data Collection & Evaluation
Supplemental Instrumentation Data Collection & Evaluation
Emergency Action Plan Notification List Updates
Emergency Action Plan Revisions
Dam Safety Emergency Exercises
Interim Remedial Measures Planning (e.g. Coordination for Operating Restrictions

Inundation Map Updates
Seismic safety Re-evaluations
Hydrologic Reevaluations
Hydraulic Steel Structure Inspection & Testing
Periodic Inspections (PI)
Physical Surveys in Support of PIs
Stilling Basin Inspections in support of PIs
Sedimentation Studies
Tainter Gate Testing
Dam Safety Training
Water Control Management Studies
O&M Manual & As Build Drawing Updates
Project Security Plans
Instrumentation Repairs & Replacement
Foundation Drain Cleaning
Critical Relief Well Maintenance
Other Relief Well Maintenance
Dam Safety Program Tool data Updates
Screening for Portfolio Risk Assessment

h. **Inspection of Completed Works (ICW).** Flood Damage Reduction and Federally Authorized Shore Protection Systems and the Levee Safety Programs**.** This section provides guidance to develop the PY budget activities for the inspection of these projects operated and maintained by non-Federal sponsors, who have responsible for operations, maintenance, repair, replacement and rehabilitation (OMRR&R) and the activities associated with implementation and management of the Corps Levee Safety Program. Guidance contained in the EC will be used in conjunction with current inspection and levee safety program implementation guidance when preparing budget submissions for PY for the following inspection program accounts:

- Inspection of Federally authorized, locally maintained Systems under the Inspection of Completed Works (ICW), Operation and Maintenance, General (O&M), appropriation category;

- Inspection of Federally authorized, locally maintained Systems under the Inspection of Completed Works (ICW), Flood Control, Mississippi River & Tributaries (MRT), appropriation category;

- Inspection of non-federal Systems under the Rehabilitation and Inspection Program (RIP), Flood Control and Coastal Emergencies (FCCE) appropriation category.

(1) Operation and Maintenance (O&M) funding of federally maintained protection systems (levees) and authorized Hurricane Shore Protection Systems shall be prioritized based on risk. Budgeted levee safety inspection items consider the performance history, potential failure modes, and severity of adverse consequences associated with each operating project. Inspections of Federal and Non-federal protection systems operated by non-federal sponsors will be performed in accordance to current policies and direction as established by HQUSACE. Existing site conditions must be considered when determining costs for each project, following collaboration between the District ICW and Levee Safety Program Managers and Operations experts.

(2) During the PY the type of inspections conducted and the inspection intervals for all flood damage reduction Systems in the ICW, MR&T and RIP inspection programs will be in accordance with

the inspection intervals shown in Table C -1. For the PY budget submission districts should assume Phase I & II I-wall analyses requirements will have been completed; that System Risk Assessments and national levee database GIS data collection activities will be centrally funded by HQUSACE; and that Levee Certifications for NFIP purposes will not be budgeted. The PY budget submissions by districts should included requirements to support the Levee Safety Program management requirements at the district level. Guidance describing the Periodic Inspection will be provided by separate guidance memorandum. Budget Increment guidance for Levee Safety Program inspection activities are at Appendix III-5, Budget Increments and Ranking.

Table C-1
Inspection Intervals & Budget Criteria
For
Flood Damage Reduction Systems

Current Land Use in the Protected Area*	**Project Design Event**	**Interval of Inspection****	**Type of Inspection** [4]
Urban/Rural/ Agricultural [1]	100 year event or greater	Annual	Routine
		5 yr	Periodic Inspection[2]
		TBD[3]	Risk Assessment[3]
Urban/Rural	50 to 99 year event	Annual	Routine
		5 yr	Periodic Inspection[2]
		TBD[3]	Risk Assessment[3]
Urban/Rural	10 to 49 year event	2 year	Routine
Agricultural	5 to 99 year event	2 year (rating dependent)	Routine

* For combined urban, rural, and agricultural levee systems the higher standard governs.
** Consider more frequent interval for levee with water on it all of the time.
1. This applies to high economic consequence agricultural regions.
2. Federal Projects/Systems only.
3. Risk assessments will be centrally funded by HQ.
4. For increment funding levels see Appendix III, “Flood and Coastal Storm Damage Reduction Business Line”

i**. Relationship to Program Execution.** Good program execution is an essential ingredient in securing the resources needed to ensure a viable O&M program and thereby continue to provide the Nation with the benefits for which water resources projects were constructed. Performance of the program is assessed through the Office of Management and Budget’s ExpectMore.gov process. Together with OMB, the performance of the program will be assessed and accountability for improvement managed to assure the program is working well for the American people. The Program Assessment Rating Tool, or PART, for short, is a questionnaire designed to help assess the management and performance of programs. It is used to evaluate a program’s purpose, design, planning, management, results, and accountability to determine its overall effectiveness. Therefore, development of the program is directly related to program execution. It is imperative to develop a sound and realistic program that can be executed as scheduled in accordance with commitments to customers. The programming process described in this annex has been designed to facilitate both program development as well as execution. If the procedures outlined in this annex are implemented in a consistent manner throughout the Corps, the result should be: (1) a credible program that can be defended within the Administration and Congress, (2) a sufficient allowance of O&M funds and (3) a high degree of fiscal performance.

j. **Operations (Work Category Codes 601XX-608XX).** All operations features should be closely examined minimize the required investment levels to reduce costs wherever possible. While there may be some cost fluctuation in investment needs among individual projects, the goal is to reduce, or at least constrain, the aggregate total growth of operations costs in the MSC to no more than inflation. Efficiency improvements should be employed to reduce operations costs, where possible.

k. **Maintenance (Work Category Codes 611XX-618XX).** Prudent stewardship of available resources is essential to preserve the existing infrastructure. The growing and aging inventory of projects with a resources constrained environment necessarily dictates that resources be concentrated on the most prudent and necessary maintenance features of the program to the maximum extent possible. Just as with operations, the maintenance features should be reviewed and efficiency measures employed to reduce investment needs to the lowest sustainable level.

l. **Priorities.** The MSC and district commanders must ensure that the program request provides balanced and equitable treatment to all Business Lines (Navigation, Flood Damage Reduction, Hydropower, Environmental Stewardship, Recreation and Water Supply) from a regional, system and watershed perspective.

m. **O&M Cost Savings Initiative**. This initiative is a methodology that has been developed to reduce the cost of operating and maintaining the Nation's water resources infrastructure, while still providing justified levels of project services. This cost reduction initiative, along with other locally generated cost saving measures, and using a Systems approach should be used to seek more efficient operation and maintenance of projects and to help reduce costs. The savings generated by these initiatives would be applied toward reducing the inventory of unfunded maintenance. All Business Lines should be continually reviewed to achieve cost savings under these initiatives.

C-2.3. **Program Development and Review Process.**

a. **Work Category Codes (WCCs).** The Civil Works O&M program development process reflects the Corps compliance with the requirements of the Government Performance and Results Act of 1993 (GPRA). Therefore, the program will be submitted in a form that reflects the primary business processes/functions established for the O&M mission. These Business Lines are Navigation, Flood Damage Reduction, Hydropower, Environmental Stewardship, Recreation and Water Supply. In addition, each budget activity will be tied to a business performance measure and goal for the program year. The Work Category Codes (WCCs) are aligned by the operation and maintenance areas and by the primary Business Lines within the operations or maintenance areas. The tables are provided in Sub-Appendix D-4 to aid in developing budget activities aligned with appropriate Business Lines, WCCs and sub-WCCs.

(1) Table C-4.1 lists WCCs and sub-WCCs in numerical order.

(2) Table C-4.2 lists WCCs and sub-WCCs in alphabetical order.

(3) Table C-4.3a is a matrix that displays the operations Work Category Code structure by each Business Line (embedded Excel file).

(4) Table C-4.3b is a matrix that displays the maintenance Work Category Code structure by each Business Line

Table 4.3ab.xls

(5) Table C-4.4 describes and defines each WCC for operations activities.

(6) Table C-4.5 describes and defines each WCC for maintenance activities.

b. Joint Activities – Joint Costs.

(1) Joint Activities are activities that cannot be assigned to one specific Business Line at O&M multipurpose projects with power (Cat/Class 300. Joint Costs are the costs assigned to Joint Activities. At non-Cat/Class 300 (non-power projects), activities previously considered as "Joint Activities" will be included in the project's predominant business line.

(2) The districts will use P2-Primavera Project Manager to assign the appropriate Work Category Codes to request funds for joint operations activities and for joint maintenance activities at Cat/Class 300 `multipurpose with Hydropower projects ONLY. Districts must ensure that joint activities are only assigned to the Hydropower Business Line in P2. The districts must also ensure joint activities are assigned the appropriate phase code (OJ or MJ) in P2 and are placed in the appropriate increment. Joint activities designated as operations and maintenance at multipurpose Cat/Class 300 projects should use Work Category Codes of 606XX for operations and 616XX for maintenance.

(3) The Hydropower business line will contain two funding levels for O&M activities: hydropower specific activities and all business lines joint activities for Cat/Class 300 projects. The Hydropower Business Line Managers at each level will manage all Cat/Class 300 joint activity budget items to ensure accountability of joint activities across business lines. A joint cost funding level will be established by HQUSACE business line managers that represents the program's sum total of the O&M joint activities across all business lines. Each MSC is responsible for ensuring that the most critical O&M joint activities are included in the Initial Increment at Cat/Class 300 projects. These joint activities will be ranked separately by the Hydropower Business Line Manager with input from other Business Line Managers as appropriate. Before submittal of the O&M budget to OMB, joint costs will be "displayed" as business line costs based on the current statutory cost allocation table in P2. However, the joint cost package will NOT be broken up and allocated across business lines within P2. Instead, each joint activity will remain as a single package or budget activity within the Hydropower Business Line.

c. **Performance-Based Programming.** Performance measures are described in the Appendices for the Business Lines. Performance data according to these measures will be entered in OFA for each budget item for which funds are requested as explained in paragraph 13 of the main body of this EC. In addition, in accordance with paragraph C-2.16, each budget item will be assigned to a Business Line increment. The districts may cite different performance levels in the funding arguments for different budget activities. For example, funding of the highest priority budget item in the Business Line initial increment may be required to attain 80 percent availability; funding of the next highest priority budget item in a subsequent Business Line increment may enable the project to attain 95 percent availability.

d. **Risk-Based Condition Assessments.** Risk-based and reliability condition assessments are described in the Business Line appendixes.

e. **Use of Work Category Codes to Program for Business Lines.** The Work Category Codes are listed as follows:

601XX Operation for Navigation Function
602XX Operation for Flood Damage Reduction Function
603XX Operation for Hydropower Function
604XX Operation for Environmental Stewardship Function
605XX Operation for Recreation Function
606XX Joint Activities for Operations (Cat/Class 300 projects only)
607XX National Emergency Preparedness Program Function
608XX Operation for Water Supply Function
611XX Maintenance for Navigation Function
612XX Maintenance for Flood Damage Reduction Function
613XX Maintenance for Hydropower Function
614XX Maintenance for Environmental Stewardship Function
615XX Maintenance for Recreation Function
616XX Joint Activities for Maintenance (Cat/Class 300 projects only)
617XX Reserved
618XX Maintenance for Water Supply Function

The programming process will allow the estimated costs for a Business Line to be identified. For example:

(1) A Cat/Class 100 Navigation project would have all of its primary purpose budget activities programmed under the 601XX and 611XX WCCs. These WCCs will identify the total navigation costs for the Navigation Business Line at this project. Separable costs specific to the Recreation and Environmental Stewardship Business Lines would be charged to the WCCs for those business lines.

(2) A Cat/Class 200 Flood Damage Reduction project with Recreation and Water Supply as authorized project purposes would have all its primary purpose budget activities programmed under the 602XX and 612XX WCCs. All Recreation-specific budget activities would be shown in 605XX and 615XX WCCs for Recreation, as appropriate. All Water Supply-specific budget activities would be shown in 608XX and 618XX WCCs for Water Supply, as appropriate. Work Category Codes 60210 and 60221 will no longer be used for Water Supply activities.

(3) A Cat/Class 300 Multiple Purpose Project with Power will have its specific Hydropower budget activities shown under the 603XX and 613XX WCCs. Budget activities representing specific activities for Navigation, Flood Damage Reduction, Recreation, Environmental Stewardship, or Water Supply will be budgeted under the WCCs for those specific business lines. The budget for Joint Activities (work which cannot be assigned to a single business line) will be shown under the 606XX and 616XX WCCs and will be coded as an “OJ” or “MJ” phase code. This allows Joint Activities at a project to be entered and managed as a single budget activity. The total budgeted amount for Joint Activities can later be “displayed” across specific Business Lines in accordance with the statutory O&M joint cost allocation formula. This “display” of joint costs will not result in a single budget activity being split into multiple activities across multiple business lines. However, this “display” of programmed costs allows the Corps to

identify the specific costs for Hydropower O&M, plus that portion of the costs for Joint Activities allocated to Hydropower. This is important because the Federal Power Marketing Administration generally reimburses the Treasury for the power costs incurred by the Corps, which includes the portion of Joint Activities that can be allocated to Hydropower. Following is an example of a joint budget activity at a Cat/Class 300 project: During the programming process, a roof repair budget activity for an administration building at a multipurpose project would have the entire programmed cost entered under a single budget activity under WCC 61610. (Note: Power cost repayment accounting is a separate activity and should not be confused with the programming and execution WCC procedures.)

f. **O&M Power Costs in the Pacific Northwest**. Pursuant to the 5 December 1997 Memorandum of Agreement between the Department of Energy, acting by and through the Bonneville Power Administration (BPA), and the Department of the Army, entitled "Direct Funding of Power Operations and Maintenance Costs at Corps Projects", BPA will direct fund O&M Power Costs for Corps projects with hydroelectric power generation facilities for which BPA is the designated Federal power marketing agency. O&M Power Costs include hydropower-specific O&M costs, the power portion of joint O&M activities, and power capital items. The Northwestern Division will prepare an Annual Power Budget in conjunction with the Bonneville Power Administration that specifies O&M Power Costs for each applicable project. A five year Power Budget which includes annual power budgets for five consecutive fiscal years will be developed in conjunction with the Bonneville Power Administration by the Northwestern Division for purposes of inclusion in the BPA rate base and to fund the Corps O&M power costs. O&M Power Costs in the Pacific Northwest will be entered into P2-Primavera Project Manager under a separate type of funds classification (Bonneville Power Appropriation), and submitted concurrently with the O&M program submittal to HQUSACE, in the appropriate funding increment. In addition, budget activities for joint activities will be split into two budget activities to reflect the appropriate allocation of joint activity costs between the O&M and O&M Power Cost appropriations. Budget activities for the power portion of large capital joint activity costs require specific dispensation from ASA(CW) to be funded within the O&M appropriation.

g. **Budget Activities - Primary and Supporting Costs.** In developing a budget activity, all costs required to accomplish the work should be included. This includes the cost of the primary activity as well as all supporting activities that are required to accomplish the work. For example, a dredging budget activity should contain the cost of the actual dredging process plus the costs for before and after surveys, engineering and design, real estate requirements, contract supervision, water quality monitoring, etc. In this way, a complete and stand-alone decision package is developed, thereby avoiding situations where the primary work is funded without the necessary supporting activities, or vice versa. This process applies to all WCC-based budget activities.

h. **Operation and Maintenance Budget Activities.** A continuing effort is required to standardize designations of budget activities as either operation or maintenance-related. To provide uniform guidance for the appropriate placement of such budget activities within operation or maintenance Work Category Codes, detailed definitions of the operation and maintenance elements of each WCC are provided in **Table C-4.2**. In addition to these definitions, the following general principles should be applied. Operation budget activities may include maintenance that is of a recurring nature, and is integral to continued project operation. Examples include things such as custodial services, removing ice and snow, debris, trash, cleaning; relamping lighting fixtures, routine testing of lubricating and hydraulic oils; replacing packing in valves and glands; replacing electrical brushes and touch-up painting, etc. This work is performed on an annual basis, typically by hired labor or small contract (service contract, purchase order, etc.). All other maintenance work, specifically, non-recurring and non-routine maintenance, should be placed under maintenance Work Category Codes. It is the nature of the work itself which dictates

where it should be placed. That is, annual recurring costs for annual recurring work, such as custodial services, belongs under operations Work Category Codes, while annual recurring costs for non-recurring work items, (e.g., minor roof repairs one year, placing signs and markers, painting of guardrails, wall striping, repainting comfort stations, etc.), belong under maintenance Work Category Codes.

i. **Appropriate Levels of Budget Activity Justification.** In a performance-based program, every budget activity must relate to an improvement in performance or results, that is, in the outputs or outcomes created by the Business Line. These linkages and the necessity of the budget activity to performance goal attainment must be made clear to all levels of reviewers, both internal and external (e.g., OMB or Congress) to the Corps. The impacts of the budget activity on specific areas of customer service, project performance, infrastructure investment, personnel or public safety, the local community, statutory requirements, or other considerations should be included in the funding argument if not covered in the performance measures.

j. **Well-Written Descriptions and Funding Arguments.** Care should be taken to write all descriptions and funding arguments clearly and concisely so that the reader can understand and appreciate the work for which funds are being requested. Well-written justifications are essential to convince reviewers who are not familiar with the work to fund your needs.

C-2.4. **Funding Considerations.** Several adjustments are made to your program after it has been submitted to HQUSACE based on coordination with ASA(CW) and OMB staff. These adjustments depend upon what is included in your program. The MSC's should ensure that every legitimate O&M need is included and properly prioritized within each Business Line so that their final program is based on the complete needs of the MSC.

C-2.5. **Special Interest Items.** In order to highlight specific activities, the following special interest items have been defined. HQUSACE may add to or delete special interest items as needed in each Program Year. Special interest items are not additional funding levels and any given budget activity may fall into all, none, or any number of special interest item categories. Activity codes have been added to P2-Primavera Project Manager for each special interest item required for the PY budget.

Table C-2-1 Special Interest Items
Environmental Management Systems
Correction of Significant Environmental Compliance Findings

A description of each of these special interest items follows:

a. **Environmental Management Systems.** Items related to implementation and/or operation of Environmental Management Systems (EMS) are to be highlighted in order to track budgeting and execution of budget activities for EMS related work. These EMS items will be recorded using the appropriate existing Work Category Codes in accordance with current practice, and will be tagged with this special interest item indicator code.

b. **Correction of Significant Environmental Compliance Findings**. Items related to corrective action for a significant environmental compliance finding are to be tagged using this special interest item indicator code.

C-2.6. **Operation and Maintenance Unfunded Requirements Reporting Requirements.** District and MSC offices are encouraged to develop complete operation and maintenance programs so that they might better anticipate future program management requirements. It is important that all justified requirements funded or unfunded, be identified, so that in the event that additional resources are made available for infrastructure preservation, appropriate funding prioritization decisions can be made about budget activities which may originally have appeared to be below the funding level. Identification of unfunded requirements is critical in order to understand and quantify the condition of the water resources infrastructure, and the quality of associated services. It is equally important that the identified unfunded requirements be a realistic assessment of requirements, and not a "wish list" of nice-to-have enhancements. All requirements within district capability should be included (i.e. they must be executable within the Program Year).

a. **Unfunded Requirements**. Unfunded Requirements are defined as those unfunded operation and maintenance work items which are required and should have been funded in the PY in order to provide reasonable assurance that project performance goals can continue to be met and that undue risk of failure is avoided. It may occur in any Business Line and is not limited to infrastructure-related budget activities. Deferred maintenance of a project feature or deferred update of a project exhibit for instance, may both be valid examples of unfunded requirements.

b. **High Priority Unfunded Requirements**. High Priority Unfunded Requirements are a primary concern of respective congressional delegations. MSCs need to be prepared to provide a prioritized listing of unfunded requirements if additional resources were to be made available.

C-2.7. **Cost Estimates.**

a. **Projections.** Field offices will compute costs based on PY-1 cost projections. All cost estimates will be projected to levels based on inflation factors and assumptions provided in the main part of this EC.

b. **Rounding.** All cost estimates shall be rounded to the nearest one thousand dollars ($1000). Because of serious complications in aggregating functional, regional and national summaries, it is imperative that everyone at all levels strictly adhere to this requirement without exception.

C-2.8. **Rank Assignments.**

a. **Work Groupings.** The smallest increment of work for O&M programming purposes is a work item or task. Examples of tasks are trash pickup at a recreation area, mowing a levee, or painting a lock gate. In P2 tasks at the same project and within the same Work Category Code may be grouped into budget activities if they are of comparable criticality or priority, for example, maintenance of 15 of 30 recreation sites during May through September or painting lock gates at locks 1-4.

b. **Rankings.** As described in paragraph C-2.16, budget activities in each Business Line will be assigned to a maximum of **five** Business Line increments. Ranking of individual budget activities will be assigned by the district and MSC within each Business Line. For each project all Increment 1 budget activities will be ranked higher than the budget activities in the next-added Business Line increment. A budget activity in the next-added increment for a high value project/activity can be ranked higher than the

initial increment budget activities at less valued projects/activities. To better ensure appropriate rank, each budget activity will contain a code indicating the Business Line increment where the budget activity belongs**.**

c. **Final Rankings.** Development of final rankings should be an iterative process that employs all the knowledge and support tools available to the decision maker. In developing the national program, HQUSACE will generally rely on the final rankings assigned by the MSC in OFA provided they meet the business line increment definitions and overall policy. It is therefore important that rank assignments be made in accordance with the relative importance of the work so as to ensure that the highest priority activities can be accomplished within available resource limits. Ranking of work items within the business line increments will follow the priorities for operation and maintenance work items. Each budget activity should be assigned to the appropriate Business Line increment based on consistent and objective application of the Business Line increment definitions and performance measures established for the applicable Business Line. See Business Line Appendices for guidance on ranking budget activities for each program.

C-2.9. **Navigation Projects.** Beginning in FY 1987, all shallow-draft harbors previously financed as a part of a through-waterway in the inland river systems were, and will continue to be, programmed as separate projects. These projects include all activities on each spur or side channel of the old project and exclude only those activities on the main through channel.

C-2.10. **Bridge Performance**. Bridges are vital to the nation's highway and transportation systems, especially high-level highway bridges over waterways and canals. Bridges are also mission critical for flood damage reduction projects as well as for public access in our recreation and environmental stewardship lands. The criteria used to prioritize the funding of maintenance of Corps-owned bridges include (1) Federal Highway Administration's (FHWA) Sufficiency Rating, (2) Mission Critical Bridge Structures, such as service bridges to dam control towers (3) Environmental Issues, such as lead based paint remediation, (4) Life and Public Safety Concerns and (5) General Bridge Condition Appraisals.

C-2.11. **Marginal Projects.** For projects, or segments of projects, that have marginal benefits, special care should be taken to ensure that all resource requests are economically justified. If sufficient study detail is not yet available to develop appropriate funding recommendations, program requests should be held to levels below historic amounts. Major repairs not essential to structural integrity in the PY should be postponed. Operation activities should be constrained to the lowest level possible.

C-2.12. **Evaluation Reports**. Dredged Material Management Plans (DMMP's) for dredged material disposal facilities at operating navigation projects will be funded in the O&M account. Evaluation Reports and/or assessments for deficiency correction, and Rehabilitations and Replacements are funded in the O&M account.

C-2.13. **Cultural Resources.** (NAGPRA/Curation). Funding requirements for activities to ensure compliance with Section 5 – 7 of the Native American Graves Protection and Repatriation Act (NAGPRA) (PL 101-601) and with 36 CFR Part 79, Curation of Federally-Owned and Administered Archeological Collections, will be budgeted as a Remaining Items activity thus should not be included in the general MSC program submittal. Specific guidance on program year activities will be provided in annual guidance by the Mandatory Center of Expertise (MCX) on how and when to make requests for funding of activities to ensure compliance with Section 5 – 7 of NAGPRA and with CRF Part 79. All of the requirements will be aggregated by the MCX into the program as a separate line item. All annual maintenance curation

costs and cultural resource management costs, other than NAGPRA, should be included in the appropriate Work Category Code, within project work packages.

C-2.14. **Special Recreation Use Fees (SRUF).** Funds generated from collecting recreation use fees are returned in O&M appropriations for operation, maintenance and improvement of recreation sites and facilities. The construction of new recreation facilities or renovation and/or improvement of existing facilities may be accomplished with these funds if the goal of providing quality public recreation experiences with the most cost efficient management of water resource development projects can be met. Overall budgetary limitations should be carefully considered in determining what activities will be financed with these funds. Routine operation and maintenance of existing sites and facilities should not be compromised to finance new construction or facility improvements. SRUF funded work previously programmed in WCC 60512 and 61512 should now be programmed in WCC 60511 and 61511.

C-2.15. **Program Development**. The Corps Civil Works program will be developed in increments by Business Line from a zero base. The proposed work included in each increment will be evaluated against the performance criteria specified for each Business Line. The initial increment should provide the greatest benefit for the investment consistent with performance measures. Each subsequent increment should be ordered by the performance benefits to be gained versus the cost of the work contained in the increment.

C-2.16. **Business Line Increments Limits**. For consistency in the formulation of the Civil Works budget across Business Lines, across appropriations and across Districts, guidelines on the development of work increments are presented in the Definition/Glossary section of the main text and within the business line annexes. Remember that increments can facilitate ranking, but they are not used to rank or prioritize activities. Performance metrics will be used to set funding priorities.

Table C-2-2 is the 5-year average of the O&M President's Budget amount by MSC. The philosophy is to use Increment 1 as the minimum level to account for critical routine activities (both operations and maintenance) and to use Increment 2 to account for critical non-routine activities on our high performing projects.

Table C-2-2
Total for Increments 1 & 2 by MSC based on 75 percent of prior five fiscal year Budgets
(Dollars in Thousands)

MSC	Amounts		
LRD	291,214		
MVD	294,596		
NAD	146,535		
NWD	184,532		
POD	16,543		
SAD	239,751		
SPD	93,989		
SWD	236,744		
TOTAL	1,503,904		

C-2.17. **Recreation Service Level**. The Recreation Business Line initial increment has been defined by service level. Accordingly, the electronic tool developed to support Recreation performance measure calculation, Rec-BEST, is also based on service levels. Performance values are calculated for the initial service level, as well as for each budget activity created above initial. Recreation budget activities will be evaluated individually based upon their performance values. All the budget packages will be grouped into the corresponding increments in P2, but separated by "Budget Item" (BEST_ID) in P2 to assure the proper performance measures can be linked to each budget item in P2. Please see Appendix VI, Recreation, for additional information about budget development for the Recreation Business Line.

C-2.18. **Environment-Stewardship Budget Evaluation System (E-S BEST)**. This web–based tool has been developed for field use in calculating Environment-Stewardship performance measure outputs for O&M activities. E-S BEST must be used to support ranking PY Environment-Stewardship O&M and MR&T budget packages. Using E-S BEST, Environment-Stewardship budget activities (as defined by Work Category Codes) may be combined to create budget packages. A budget package is to contain all the budget activities that are necessary to produce a specified and quantified performance output. Performance outputs values will be calculated for all budget packages created in E-S BEST, using information provided by the Operations Manager or appropriate project budget developer. E-S BEST will support the ranking of all the Environment-Stewardship budget packages at the District, MSC, and HQ levels. Environment-Stewardship budget packages will be grouped into increments in accord with the definitions provided in the main portion of the EC. See Sub-Appendix II-3, Environment-Stewardship for additional information about budget development for the Environment-Stewardship Business Line.

C-2.19. **Projects Previously Funded in Construction.** The PY Civil Works budget will fund five types of previously funded Construction activities in the Operation and Maintenance account. These activities are appropriately funded in the Operation and Maintenance account, both because of the nature of the work they represent and because of their integral connection to operation and maintenance. This reassignment improves accountability and oversight, reflects the full cost of operation and maintenance, and supports an integrated funding strategy for existing projects.

a. **Biological Opinions**: Activities necessary to comply with Biological Opinions, pursuant to the Endangered Species Act, to avoid jeopardizing listed species at existing projects. Compliance costs will be allocated among the project purposes of the operating projects.

b. **Rehabilitations**: Work to restore or ensure continuation of project functions or outputs. Rehabilitation of existing projects will compete for funding on a level playing field with other operation and maintenance activities. Fifty percent of the costs of rehabilitations for inland waterway projects will be derived from the Inland Waterways Trust Fund. Section 205 of WRDA 92 defines “rehabilitation,” with respect to inland waterway projects, as economically justified, structural restoration of major project features that extends project life more than 2 years, or structural modifications that enhance operational efficiency, and that exceed certain cost thresholds. Continued maintenance may be viewed as the alternative to rehabilitation, and so rehabilitations should compete against maintenance. Also, since rehabilitations are not as large as replacements they can be programmed more easily in the Operation and Maintenance account.

(1) New Rehabilitation projects will be funded with O&M funds. One-half of the funding for new Rehabilitations projects for inland and intracoastal waterways proposed for funding in the PY will be derived from the Inland Waterways Trust Fund (IWTF).

(2) The Rehabilitation program consists of work included in only one of two mutually exclusive categories: reliability improvements. The Reliability category encompasses major project feature restoration consisting of structural work on a Corps operated and maintained facility such as a lock, dam, etc., intended to improve the reliability of an existing structure, the result of which will be the deferral of capital expenditures to replace the structure. Rehabilitation will be considered when it can significantly extend the physical life of the feature and can be economically justified by benefit-cost ration analysis. The work will extend over at least two full construction seasons and will require at least $6.6 million in outlays. For inland waterways projects, the reliability threshold will be $11 million.

(3) The proposed Rehabilitation project must have an evaluation report at HQUSACE for review by 15 March of the PY-2 in accordance with Chapter 3 of ER 1130-2-500 and Chapter 3 of EP 1130-2-500 with HQUSACE approval expected by 1 August of the PY-2.

(4) The proposed work must not require additional Congressional authorization.

(5) Dam Safety and Seepage/Stability Correction projects will be included in Construction program.

(6) Items within the efficiency improvement category are to be included in the Construction program as Replacements.

c. **Dredged Material Disposal Facilities (DMDFs)**. DMDFs are included for material from maintenance dredging. Funding for the dredged material disposal facilities would be derived from the Harbor Maintenance Trust Fund.

d. **Beneficial Use of Dredged Material.** Beneficial use of Dredged material from maintenance dredging**:** Construction of facilities, projects or features that use maintenance dredging material. These include beneficial uses of dredged material for island and marsh creation, shore protection, and other environmental purposes pursuant to the Section 204 / 207 / 933 Continuing Authority Program and specific authorizations.

e. **Renourishment to Restore Sand Lost to Shorelines from Federal Navigation O&M:** Replacement of sand lost from shores due to the operation of Federal navigation projects (navigation mitigation). This activity would be carried out pursuant to specific authorizations for shore protection projects that involve navigation mitigation, and pursuant to the Section 111 Continuing Authority Program. Funding for navigation mitigation will be derived from the Harbor Maintenance Trust Fund.

Assume that proposed PY-1 appropriations bill language will enable funding of these activities from the Operation and Maintenance account. Proposed language includes a provision for activities to comply with the Endangered Species Act at existing projects as well as funding for "eligible operations and maintenance" to be derived from the Harbor Maintenance Trust Fund. According to Section 201 of the Water Resources Development Act of 1996, eligible operations and maintenance activities include not only harbor dredging but also the dredged material disposal facilities and navigation mitigation.

f. **CCS Codes (Projects Moved from C to O&M).**

Table C 2.19 CCS Codes.doc

C-2.20. **Deficiency Corrections.** All deficiencies at Corps of Engineers operated and maintained projects will be corrected using O&M funds. Deficiencies with an estimated total cost of greater than $5 million were previously included in Construction.

C-2.21. **Additional Information.**

a. Database System. P2 will be used to submit data for the O&M program**.** For guidance and instructions on use of P2 refer to paragraph **13** in the main EC, and the document named "CW Program Budget Submission (PBS) Functional Design" which can be obtained from a link on the P2 OFA-CW opening screen or directly from **https://p2ofa.usace.army.mil/oew-install/doc/PBS%20Functional%20Design.doc**.

b. **Correction of Program Submittals.** As in past years, districts and MSCs will be asked to make any necessary corrections through automated program systems after HQUSACE review. If a district or MSC is asked to make corrections, the database will be reopened to allow access for updating.

c. **Points of Contact.**

Table C-2-3 Contacts for General/Miscellaneous Items		
Question(s) Referring To	**Office**	**Telephone**
Policies, procedures, or format of the Project O&M activity.	CECW-IP	202-761- 4130 fax 202-761-4370
Automated input for the same activity	CECW-IN	202-761 4215 fax 202-761- 5295
Programs Management staff coordination of Congressional submission of the O&M program.	CECW-IP	202-761- 4130 fax 202-761-4370 (**e-mail preferred)**
Curation\Native American Graves Protection Act (NAGPRA)	CECW-PC-NWD	202-761- 4618

C-2.22. **Submission Requirements.** Submission time schedules for automated data and hard copies are listed in Table 2 of the main text.

TABLE C-2-4 Contacts for Performance Measures for O&M Program Submittal			
ENTRY #	**PROPONENT MANAGER**	**BUSINESS FUNCTION**	**PERFORMANCE MEASURE**
1	CECW-CO 202-761-8648	Navigation	Percent Time Achieve Purpose – Coastal
2	CECW-CO 202-761-8648	Navigation	Percent Time Achieve Purpose – Inland
3	CECW-CP 202-761-4127	Flood Damage Reduction	Availability
4	CECW-CO 202-761-4889	Hydropower	Forced Outage
5	CECW-CO 202-761-4889	Hydropower	Peak Season Availability
6	CECW-CO 202-761-0036	Recreation	Recreation Unit Day Availability
7	CECW-CO 202-761-0036	Recreation	Facility Condition Index

TABLE C-2-4
Contacts for Performance Measures
for O&M Program Submittal

ENTRY #	PROPONENT MANAGER	BUSINESS FUNCTION	PERFORMANCE MEASURE
8	CECW-CO 202-761-0036	Recreation	NED Benefit
9	CECW-CO 202-761-1228 202-761-4704	Environment – Stewardship	Percent of Minimum Level One Natural Resources Inventory Completed
10	CECW-CO 202-761-4704	Environment – Stewardship	Percent of Healthy and Sustainable Acres on Corps Property
11	CECW-CO 202-761-4704	Environment-Stewardship	Mitigation Land Meeting Requirements
12	CECW-CO 202-761-4704	Environment-Stewardship	Percent of Corps-Operated Projects with Master Plans in Compliance with ER 1130-2-550
13	CECW-CO 202-761-4690	Environmental – Compliance	a. Significant Findings Corrected b. Major Findings Corrected

SUB-ANNEX C-3

Operation And Maintenance
National Emergency Preparedness Program (Nepp)

C-3.1. **General.** Through the use of the Evaluation and Corrective Action Program and other similar assessment tools, every effort should be made to ensure that your current state of organizational readiness is maintained in a manner which assures that your capability to support the nation in a national emergency is sustained. National Emergency Preparedness Program (NEPP) activities to be programmed are Local Preparedness (Continuity of Operations) 903-510, National Preparedness (primarily the development of Catastrophic Disaster Response Plans (CDRP)) 903-520, Facilities (903-530), the Emergency Water Program (903-540), Continuity of Government (903-550), and NEPP Training/Exercises (903-560). Overall program priorities are:

Preparedness Plans and SOPs (including CDRP's, COOP, COG)
Program Management
Exercises and Training
Emergency Facilities (EOC)

Field organizations should not anticipate any significant mid-year fiscal relief from HQUSACE (CECS-HS) for personnel or other program costs. MSC's should critically review subordinate district requirements to ensure consistency with overall priorities. If necessary, MSC's should propose reprogramming within the Division to accomplish highest priority efforts.

C-3.2. **General Program.**

a. **National Emergency Preparedness Program (Code 903-500).** This feature series includes those civil administrative, supervisory and procurement activities at each USACE activity that are concerned solely with developing and maintaining a high state of preparedness for national emergency operations of the Corps of Engineers Civil Works functions.

b. **Continuity of Operations (Code 903-510).** This feature series applies to USACE oriented Continuity of Operations (COOP) preparedness planning. Activities in this category include those associated with the identification of specific USACE reconstitution missions, the analysis of required resources, the establishment of organizational and operational procedures, the preparation and publication of contingency plans, and the participation in exercises related to USACE emergency relocation and reconstitution missions as a result of either a natural or manmade disaster. Planning items should include but are not limited to: command succession, identification of alternate relocation/alternate headquarters site(s) (NEPP does not support funding for the acquisition of space), development of appropriate crisis relocation team(s), identification and storage of duplicate emergency files, and other considerations necessary to ensure minimum downtime of the affected organization. This also includes, in conjunction with other appropriate offices, the development of a framework for the individual plans that address the continued operation of Corps civil works projects.

c. **National Preparedness Planning (Code 903-520).** This feature series consists of activities and services which provide the Corps with the capability to ensure that MSC's and districts can provide support for the nation during national emergency events other than reconstitution. Included are those activities associated with the identification of the USACE national emergency missions, the establishment of organizational and operational procedures, the preparation and publication of catastrophic disaster

response plans. Also included is the necessary planning coordination with related Federal, state, and local entities. Efforts include, but are not limited to, the following:

(1) Technological and other manmade disasters.

(2) Anti and Counter Terrorism.

(3) Military Support to Civil Authorities, including the development of catastrophic disaster response plans.

(4) Command, Control, Communications and Computers (C4).

(5) Individual Mobilization Augmentee (IMA) Program Management. IMA management associated solely with disaster response and the development and maintenance of disaster related TDAs.

(6) Port Readiness. Activities associated with maintenance of navigable waterways.

(7) Resource Management and Administration. Requirements associated with programming, personnel management, and reports.

d. **Emergency Operations Center Support (Code 903-530).** This feature consists of the exclusive use of space which supports Emergency Operations Centers (EOCs). Included are those activities associated with the operation and maintenance in support of the facilities (rent, supplies, equipment, etc.). This class does not include any labor charges. The EOC will be funded on a joint basis between NEPP and other readiness programs.

e. **Emergency Water Program (Code 903-540).** This applies to requirements of Executive Order (E.O.) 12656 (For Headquarters, U.S. Army Corps of Engineers (HQUSACE only).

f. **Continuity of Government (Code 903-550).** Defined as plans to support Federal Emergency Management Agency (FEMA) and other Federal, state and local agencies in their efforts to reestablish civil authority lost as a result of natural or manmade disaster or an attack on the United States (HQUSACE and only as directed).

g. **Catastrophic Disaster Training and Exercises (Code 903-560).** The development of and participation in catastrophic disaster exercises and training in the inter- and intra-agency arena. The development and participation in evaluation and corrective action programs related to catastrophic disasters will be funded under this class.

C-3.3. **Cost Estimates.** Estimates should include overhead costs for both PY-1, PY, and PY+n. PY-1 figures should reflect any recommended increases from the PY-1 program request.

C-3.4. **Recommended Funding Level.** PY-1 and PY funding levels for all series other than Code 903-520 are expected to be no higher than PY-2 levels, (Code 903-520 funding will be based upon specific scenario based CDRP assignments). MSC's will establish priorities for each major level of effort and identify those areas which cause recommended division/district programs to exceed funding levels defined. Requirements above PY-2 allocations should be specifically addressed. Salary costs for MSC Emergency Management Chiefs are to be funded under the Expenses appropriation, not Operation and Maintenance, or Flood Control and Coastal Emergencies appropriation accounts.

C-3.5. **Submission Requirements.** HQUSACE will provide electronic versions for Illustrations to MSC's. MSC's will consolidate district's submissions and forward hard copies to the Office of Homeland Security, CECS-HS, not later than 27 June 08. Although detailed breakdowns of MSC and district programs for PY + n years are not required, districts will provide estimates to division headquarters to justify total programs for PY + n. Questions regarding NEPP program management submissions can be addressed to Germaine Hofbauer, telephone: (202) 761-4970.

SUB-ANNEX C-4

OPERATION AND MAINTENANCE

WORK CATEGORY CODES

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TABLE C-4.1
WORK CATEGORY CODES - NUMERICALLY ORDERED
(See footnotes at end of Table)

WORK CATEGORY CODE	DESCRIPTION
601-- [1/]	Operation for Navigation Functions
60110 **	Operation of Locks, Dams, Reservoirs, Service Facilities, Permanent Operating Equipment, Etc. for Navigation
60120 [1/]	Studies and Surveys for Navigation
60121*	Studies and Surveys
60122	Major Rehabilitation Evaluation Reports
60123	Environmental Studies and Monitoring for Dredging Purposes
60130 [1/]	Dam Safety for Navigation
60131**	Instrumentation, Data Collection and Analysis
60132*	Formal Periodic Inspections and Reports
60133	Dam Safety Assurance Studies
60140 [1/]	Water Management (Control and Quality) Activities for Navigation
60141	Water Management (Control and Quality) Activities - Analysis and Studies for Navigation
60142	Water Management (Control and Quality) Activities - Operation of Water Control Data Systems for Navigation
60150*	Real Estate Management for Navigation
60160	Environmental Compliance Management for Navigation
60190 [1/]	Facility Security for Navigation
60191	Facility Security Assessments for Navigation
60192	Facility Security Guards, Monitoring Activities for Navigation
602-- [1/]	Operation for Flood Damage Reduction Functions
60210**	Operation of Locks, Dams, Reservoirs, Service Facilities, Permanent Operating Equipment, Etc. for Flood Damage Reduction
60220 [1/]	Studies and Surveys for Flood Damage Reduction
60221	Studies and Surveys
60222	Major Rehabilitation Evaluation Reports
60223*	Inspections of Completed Works - Local Protection Projects
60230 [1/]	Dam Safety for Flood Damage Reduction
60231**	Instrumentation, Data Collection and Analysis
60232*	Formal Periodic Inspections and Reports
60233	Dam Safety Assurance Studies

TABLE C-4.1
WORK CATEGORY CODES - NUMERICALLY ORDERED
(See footnotes at end of Table)

WORK CATEGORY CODE	DESCRIPTION
60240 [1/]	Water Management (Control and Quality) Activities for Flood Damage Reduction
60241	Water Management (Control and Quality) Activities - Analysis and Studies for Flood Damage Reduction
60242	Water Management (Control and Quality) Activities - Operation of Water Control Data Systems for Flood Damage Reduction
60250*	Real Estate Management for Flood Damage Reduction
60260	Environmental Compliance Management for Flood Damage Reduction
60290 [1/]	Facility Security for Flood Damage Reduction
60291	Facility Security Assessments for Flood Damage Reduction
60292	Facility Security Guards, Monitoring Activities for Flood Damage Reduction
603-- [1/]	Operation for Hydropower Functions
60310 [1/]	Operation of Dams, Power Plants, Reservoirs, Service Facilities, Permanent Operating Equipment, Etc. for Hydropower
60311**	Operations - Supervision and Engineering
60312**	Hydraulic Expenses
60313**	Electric Expenses
60314**	Miscellaneous Hydraulic Power Generation Expenses
60320 [1/]	Studies and Surveys for Hydropower
60321	Studies and Surveys - Supervision and Engineering
60322	Studies and Surveys - Hydraulic Expenses
60323	Studies and Surveys – Electric Expenses
60324	Studies and Surveys - Miscellaneous Hydraulic Power Generation Expenses
60325	Major Rehabilitation Evaluation Reports
60330 [1/]	Dam Safety for Hydropower
60331**	Instrumentation, Data Collection and Analysis
60332*	Formal Periodic Inspections and Reports
60333	Dam Safety Assurance Studies
60340 [1/]	Water Management (Control and Quality) Activities for Hydropower
60341	Water Management (Control and Quality) Activities - Analysis and Studies for Hydropower
60342	Water Management (Control and Quality) Activities - Operation of

TABLE C-4.1
WORK CATEGORY CODES - NUMERICALLY ORDERED
(See footnotes at end of Table)

WORK CATEGORY CODE	DESCRIPTION
	Water Control Data Systems for Hydropower
60350*	Real Estate Management for Hydropower
60360	Environmental Compliance Management for Hydropower
60390 [1/]	Facility Security for Hydropower
60391	Facility Security Assessments for Hydropower
60392	Facility Security Guards, Monitoring Activities for Hydropower
604-- [1/]	Operation for Environmental Stewardship Functions
60410 [1/]	Operation for Environmental Stewardship
60411	Management of Natural Resources for Environmental Stewardship
60412	Management and Curation of Archeological and Cultural Resources
60413	Management of Natural Resources Mitigation Features
60414	Fisheries Management - Operation of Fish Hatcheries
60415	Fisheries Management – Fish Hauling Activities and Fish Passage Structures
60416	Comprehensive Master Plans
60417	Shoreline Management
60418	Management of Special Status Species for Environmental Stewardship
60419	Pest Management for Environmental Stewardship
60420 [1/]	Studies, Surveys and Inventories for Environmental Stewardship
60421	Studies, Surveys and Inventories for Environmental Stewardship
60422	Inspection of Ecosystem Restoration Projects
60430	Reserved
60440 [1/]	Water Management (Control and Quality) Activities for Environmental Stewardship
60441	Water Management (Control and Quality) Activities - Analysis and Studies for Environmental Stewardship
60442	Water Management (Control and Quality) Activities - Operation of Water Control Data Systems for Environmental Stewardship
60450*	Real Estate Management for Environmental Stewardship
60460	Environmental Compliance Management for Environmental Stewardship
60490 [1/]	Facility Security for Environmental Stewardship
60491	Facility Security Assessments for Environmental Stewardship

TABLE C-4.1
WORK CATEGORY CODES - NUMERICALLY ORDERED
(See footnotes at end of Table)

WORK CATEGORY CODE	DESCRIPTION
60492	Facility Security Guards, Monitoring Activities for Environmental Stewardship
605-- [1/]	Operation for Recreation Functions
60510 [1/]	Operation for Recreation
60511**	Operation/management of Recreation Areas/facilities, Reservoirs, Service Facilities and Equipment, Etc. for Recreation
60513	Law Enforcement - Costs and Supervision of Law Enforcement Agreements
60514	Operation/management of Visitor Centers
60520	Studies and Surveys for Recreation
60530	Reserved
60540 [1/]	Water Management (Control and Quality) Activities for Recreation
60541	Water Management (Control and Quality) Activities - Analysis and Studies for Recreation
60542	Water Management (Control and Quality) Activities - Operation of Water Control Data Systems for Recreation
60550*	Real Estate Management for Recreation
60560	Environmental Compliance Management for Recreation
60590 [1/]	Facility Security for Recreation
60591	Facility Security Assessments for Recreation
60592	Facility Security Guards, Monitoring for Recreation
606-- [1/]	Joint Activities for Operations (Cat/Class 300 Multipurpose Hydropower Projects ONLY)
60610**	Joint Costs for Operations Activities
60620 [1/]	Joint Costs for Studies and Surveys
60621*	Joint Costs for Studies and Surveys
60622	Joint Costs for Major Rehabilitation Evaluation Reports
60630 [1/]	Joint Costs for Dam Safety Activities
60631**	Joint Costs for Instrumentation, Data Collection and Analysis
60632*	Joint Costs for Formal Periodic Inspections and Reports
60633	Joint Costs for Dam Safety Assurance Studies
60640 [1/]	Joint Costs for Water Management (Control and Quality) Activities
60641	Joint Costs for Water Management (Control and Quality) Activities – Analysis and Studies

TABLE C-4.1
WORK CATEGORY CODES - NUMERICALLY ORDERED
(See footnotes at end of Table)

WORK CATEGORY CODE	DESCRIPTION
60642	Joint Costs for Water Management (Control and Quality) Activities – Operation of Water Control Data Systems
60650*	Joint Costs for Real Estate Management Activities
60660	Joint Costs for Environmental Compliance Management Activities
60690 [1/]	Joint Costs for Facility Security Activities
60691	Joint Costs for Facility Security Assessments
60692	Joint Costs for Facility Security Guards, Monitoring Activities
60710 [1/]	National Emergency Preparedness Program (NEPP)
60711	NEPP Continuity of Operations
60712	NEPP National Preparedness Planning
60713	NEPP Support of Emergency Ops Ctrs
60714	NEPP Emergency Water Program
60715	NEPP Continuity of Government
60716	NEPP Training and Exercises
608-- [1/]	Operation for Water Supply Functions
60810 [1/]	Operation for Water Supply
60811	Operation of Project Gates, Specific Water Supply Conduits, Permanent Operating Equipment, Etc. for Water Supply
60812	Water Supply Agreements
60820	Studies and Surveys for Water Supply
611—[1/]	Maintenance for Navigation Functions
61110	Maintenance of Locks, Dams, Reservoirs, Levees, Other Structures, Service Facilities, Permanent Operating Equipment, Etc. for Navigation
61120 [1/]	Dredging for Navigation
61121	Dredging Activities for Navigation
61122	Construction and Maintenance of Dredged Material Disposal Facilities for Navigation
61130	Dam Safety Remediation of Deficiencies for Navigation
61140	Purchase/maintenance of Water Management (Control and Quality) Equipment for Navigation
61150 [1/]	Real Estate for Navigation
61151	Land Acquisition and Disposal Management Activities, Settlement of Claims, and Audits for Navigation

TABLE C-4.1 WORK CATEGORY CODES - NUMERICALLY ORDERED (See footnotes at end of Table)	
WORK CATEGORY CODE	DESCRIPTION
61152	Resolution of Real Estate Encroachments for Navigation
61153	Boundary Monumentation and Rectification for Navigation
61160	Environmental Compliance (Remedial Actions) for Navigation
61170	Remaining O&M Funded Major Rehabilitation (Comprehensive Replacement) Projects for Navigation
61190 [1/]	Facility Security Physical Improvements, Modifications, Maintenance and Replacement for Navigation
61191	Facility Security Maintenance and Replacement for Navigation
61192	Facility Security Physical Improvements and Modifications for Navigation
612—[1/]	Maintenance for Flood Damage Reduction Functions
61210 [1/]	Maintenance for Flood Damage Reduction
61211	Maintenance of Dams, Reservoirs, Other Structures, Service Facilities, permanent Operating Equipment, Etc. for Flood Damage Reduction
61212	Maintenance of Dikes, Revetments, Breakwaters and Similar Structures for the Mississippi River and Tributaries (MR&T)
61220 [1/]	Dredging for Flood Damage Reduction
61221	Dredging Activities for Flood Damage Reduction
61222	Construction and Maintenance of Dredged Material Disposal Facilities for Flood Damage Reduction
61230	Dam Safety Remediation of Deficiencies for Flood Damage Reduction
61240	Purchase/maintenance of Water Management (Control and Quality) Equipment for Flood Damage Reduction
61250 [1/]	Real Estate for Flood Damage Reduction
61251	Land Acquisition and Disposal Management Activities, Settlement of Claims, and Audits for Flood Damage Reduction
61252	Resolution of Real Estate Encroachments for Flood Damage Reduction
61253	Boundary Monumentation and Rectification for Flood Damage Reduction
61260	Environmental Compliance (Remedial Actions) for Flood Damage Reduction
61290 [1/]	Facility Security Physical Improvements, Modifications, Maintenance

TABLE C-4.1
WORK CATEGORY CODES - NUMERICALLY ORDERED
(See footnotes at end of Table)

WORK CATEGORY CODE	DESCRIPTION
	and Replacement for Flood Damage Reduction
61291	Facility Security Maintenance and Replacement for Flood Damage Reduction
61292	Facility Security Physical Improvements and Modifications for Flood Damage Reduction
613—[1/]	Maintenance for Hydropower Functions
61310 [1/]	Maintenance of Power Plants, Dams, Reservoirs, Service Facilities, Permanent Operating Equipment, Etc. for Hydropower
61311	Maintenance Supervision for Hydropower
61312	Maintenance of Hydraulic Structures for Hydropower
61313	Maintenance of Electric Plant for Hydropower
61314	Maintenance of Miscellaneous Hydraulic Plant for Hydropower
61320	Dredging Activities for Hydropower
61330	Dam Safety Remediation of Deficiencies for Hydropower
61340	Purchase/maintenance of Water Management (Control and Quality) Equipment for Hydropower
61350 [1/]	Real Estate for Hydropower
61351	Land Acquisition and Disposal Management Activities, Settlement of Claims, and Audits for Hydropower
61352	Resolution of Real Estate Encroachments for Hydropower
61353	Boundary Monumentation and Rectification for Hydropower
61360	Environmental Compliance (Remedial Actions) for Hydropower
61370 [1/]	Remaining O&M Funded Major Rehabilitation (Comprehensive Replacement) Projects for Hydropower
61371	Comprehensive Replacement Supervision
61372	Comprehensive Replacement of Structures
61373	Comprehensive Replacement of Electric Plant
61374	Comprehensive Replacement of Miscellaneous Hydraulic Plant
61390 [1/]	Facility Security Physical Improvements, Modifications, Maintenance and Replacement for Hydropower
61391	Facility Security Maintenance and Replacement for Hydropower
61392	Facility Security Physical Improvements and Modifications for Hydropower
614—[1/]	Maintenance for Environmental Stewardship Functions

TABLE C-4.1
WORK CATEGORY CODES - NUMERICALLY ORDERED
(See footnotes at end of Table)

WORK CATEGORY CODE	DESCRIPTION
61410 [1/]	Maintenance for Environmental Stewardship
61411	Maintenance of Natural Resources Facilities for Environmental Stewardship
61412	Mitigation of Archeological and Cultural Resources
61413	Maintenance of Natural Resources Mitigation Features for Environmental Stewardship
61414	Maintenance of Fisheries, Fish Haulage Activities and Fish Passage Structures
61418	Maintenance for Special Status Species for Environmental Stewardship
61420 [1/]	Dredging for Environmental Stewardship
61421	Dredging Activities for Environmental Stewardship
61422	Construction and Maintenance of Dredged Material Disposal Facilities for Environmental Stewardship
61430	Reserved
61440	Purchase/maintenance of Water Management Equipment (Control and Quality) for Environmental Stewardship
61450 [1/]	Real Estate for Environmental Stewardship
61451	Land Acquisition and Disposal Management Activities, Settlement of Claims, and Audits for Environmental Stewardship
61452	Resolution of Real Estate Encroachments for Environmental Stewardship
61453	Boundary Monumentation and Rectification for Environmental Stewardship
61460	Environmental Compliance (Remedial Actions) for Environmental Stewardship Features
61490 [1/]	Facility Security Physical Improvements, Modifications, Maintenance and Replacement for Environmental Stewardship
61491	Facility Security Maintenance and Replacement for Environmental Stewardship
61492	Facility Security Physical Improvements and Modifications for Environmental Stewardship
615—[1/]	Maintenance for Recreation Functions
61510 [1/]	Maintenance for Recreation
61511	Maintenance of Recreation Facilities, Other Operating Equipment, Etc.

TABLE C-4.1
WORK CATEGORY CODES - NUMERICALLY ORDERED
(See footnotes at end of Table)

WORK CATEGORY CODE	DESCRIPTION
61513	Cost Shared Recreation Developments
61514	Maintenance of Visitor Centers
61515	Modernization of Recreation Features
61520	Dredging Activities for Recreation
61530	Reserved
61540	Purchase/maintenance of Water Management Equipment (Control and Quality) for Recreation
61550 [1/]	Real Estate for Recreation
61551	Land Acquisition and Disposal Management Activities, Settlement of Claims, and Audits for Recreation
61552	Resolution of Real Estate Encroachments for Recreation
61553	Boundary Monumentation and Rectification for Recreation
61560	Environmental Compliance (Remedial Actions) for Recreation
61590 [1/]	Facility Security Physical Improvements, Modifications, Maintenance and Replacement for Recreation
61591	Facility Security Maintenance and Replacement for Recreation
61592	Facility Security Physical Improvements and Modifications for Recreation
616—[1/]	Joint Activities for Maintenance (Cat/Class 300 Multipurpose Hydropower Projects ONLY)
61610	Joint Costs for Maintenance Activities Excluding Dredging
61620 [1/]	Joint Costs for Dredging
61621	Joint Costs for Dredging Activities
61622	Joint Costs for Construction and Maintenance of Dredged Material Disposal Facilities
61630	Joint Costs for Dam Safety Remediation of Deficiencies
61640	Joint Costs for Water Management Equipment Activities
61650 [1/]	Joint Costs for Real Estate Activities
61651	Joint Costs for Land Acquisition and Disposal Management Activities, Settlement of Claims, and Audits
61652	Joint Costs for Resolution of Real Estate Encroachments
61653	Joint Costs for Boundary Monumentation and Rectification
61660	Joint Costs for Environmental Compliance (Remedial Actions) Activities

TABLE C-4.1 WORK CATEGORY CODES - NUMERICALLY ORDERED (See footnotes at end of Table)	
WORK CATEGORY CODE	DESCRIPTION
61690 1/	Joint Costs for Facility Security Physical Improvements, Modifications, Maintenance and Replacement
61691	Joint Costs for Facility Security Maintenance and Replacement
61692	Joint Costs for Facility Security Physical Improvements and Modifications
618-- 1/	Maintenance for Water Supply Functions
61810	Maintenance of Project Gates, Specific Water Supply Conduits, Permanent Operating Equipment, Etc. for Water Supply

1/ SUMMARY COST ACCOUNT/WORK CATEGORY CODE - COSTS MAY NOT BE CHARGED DIRECTLY TO THESE ACCOUNTS.

NOTE: PERIODIC INSPECTIONS AND REPORTS, AND INSTRUMENTATION, DATA COLLECTION AND ANALYSIS ARE TO BE INCLUDED IN THE MINIMUM PROGRAM FOR THE PROJECT TO MEET MINIMUM LEGAL RESPONSIBILITIES FOR OPERATIONS AND SAFETY. THIS FOOTNOTE APPLIES TO THE WORK CATEGORY CODES 60131, 60132, 60231, 60232, AND 60331, 60332, 60631 AND 60632.

*Work Category Codes marked with an asterisk require added data in project work description, justification statement, or output measures.

**Although Work Category Codes marked with double asterisk require no description or funding argument, requested resources will be in consonance with the funding increment and prior year experience.

TABLE C-4.2
WORK CATEGORY CODES - ALPHABETICALLY ORDERED

DESCRIPTION	WORK CATEGORY CODE
Boundary Monumentation and Rectification for Environmental Stewardship	61453
Boundary Monumentation and Rectification for Flood Damage Reduction	61253
Boundary Monumentation and Rectification for Hydropower	61353
Boundary Monumentation and Rectification for Navigation	61153
Boundary Monumentation and Rectification for Recreation	61553
Comprehensive Master Plans	60416
Comprehensive Replacement of Electric Plant	61373
Comprehensive Replacement of Miscellaneous Hydraulic Plant	61374
Comprehensive Replacement of Structures	61372
Comprehensive Replacement Supervision	61371
Construction and Maintenance of Dredged Material Disposal Facilities for Flood Damage Reduction	61222
Construction and Maintenance of Dredged Material Disposal Facilities for Environmental Stewardship	61422
Construction and Maintenance of Dredged Material Disposal Facilities for Navigation	61122
Cost Shared Recreation Developments	61513
Dam Safety Assurance Studies	60333
Dam Safety Assurance Studies	60133
Dam Safety Assurance Studies	60233
Dam Safety for Flood Damage Reduction	60230 [1/]
Dam Safety for Hydropower	60330 [1/]
Dam Safety for Navigation	60130 [1/]
Dam Safety Remediation of Deficiencies for Flood Damage Reduction	61230
Dam Safety Remediation of Deficiencies for Hydropower	61330
Dam Safety Remediation of Deficiencies for Navigation	61130
Dredging Activities for Environmental Stewardship	61421
Dredging Activities for Flood Damage Reduction	61221
Dredging Activities for Hydropower	61320
Dredging Activities for Navigation	61121
Dredging Activities for Recreation	61520
Dredging for Environmental Stewardship	61420 [1/]

TABLE C-4.2 WORK CATEGORY CODES - ALPHABETICALLY ORDERED	
DESCRIPTION	WORK CATEGORY CODE
Dredging for Flood Damage Reduction	61220 [1/]
Dredging for Navigation	61120 [1/]
Electric Expenses	60313**
Environmental Compliance (Remedial Actions) for Environmental Stewardship Features	61460
Environmental Compliance (Remedial Actions) for Flood Damage Reduction	61260
Environmental Compliance (Remedial Actions) for Hydropower	61360
Environmental Compliance (Remedial Actions) for Navigation	61160
Environmental Compliance (Remedial Actions) for Recreation	61560
Environmental Compliance Management for Environmental Stewardship	60460
Environmental Compliance Management for Flood Damage Reduction	60260
Environmental Compliance Management for Hydropower	60360
Environmental Compliance Management for Navigation	60160
Environmental Compliance Management for Recreation	60560
Environmental Studies and Monitoring for Dredging Purposes	60123
Facility Security Assessments for Environmental Stewardship	60491
Facility Security Assessments for Flood Damage Reduction	60291
Facility Security Assessments for Hydropower	60391
Facility Security Assessments for Navigation	60191
Facility Security Assessments for Recreation	60591
Facility Security for Environmental Stewardship	60490 [1/]
Facility Security for Flood Damage Reduction	60290 [1/]
Facility Security for Hydropower	60390 [1/]
Facility Security for Navigation	60190 [1/]
Facility Security for Recreation	60590 [1/]
Facility Security Guards, Monitoring Activities for Environmental Stewardship	60492
Facility Security Guards, Monitoring Activities for Flood Damage Reduction	60292
Facility Security Guards, Monitoring Activities for Hydropower	60392
Facility Security Guards, Monitoring Activities for Navigation	60192
Facility Security Guards, Monitoring Activities for Recreation	60592
Facility Security Maintenance and Replacement for Navigation	61191
Facility Security Physical Improvements and Modifications for Navigation	61192
Facility Security Physical Improvements, Modifications, Maintenance and	61190 [1/]

TABLE C-4.2
WORK CATEGORY CODES - ALPHABETICALLY ORDERED

DESCRIPTION	WORK CATEGORY CODE
Replacement for Navigation	
Facility Security Maintenance and Replacement for Flood Damage Reduction	61291
Facility Security Physical Improvements and Modifications for Flood Damage Reduction	61292
Facility Security Physical Improvements, Modifications, Maintenance and Replacement for Flood Damage Reduction	61290 1/
Facility Security Maintenance and Replacement for Hydropower	61391
Facility Security Physical Improvements and Modifications for Hydropower	61392
Facility Security Physical Improvements, Modifications, Maintenance and Replacement for Hydropower	61390 1/
Facility Security Maintenance and Replacement for Environmental Stewardship	61491
Facility Security Physical Improvements and Modifications for Environmental Stewardship	61492
Facility Security Physical Improvements, Modifications, Maintenance and Replacement for Environmental Stewardship	61490 1/
Facility Security Maintenance and Replacement for Recreation	61591
Facility Security Physical Improvements and Modifications for Recreation	61592
Facility Security Physical Improvements, Modifications, Maintenance and Replacement for Recreation	61590 1/
Fisheries Management – Fish Hauling Activities and Fish Passage Structures	60415
Fisheries Management - Operation of Fish Hatcheries	60414
Formal Periodic Inspections and Reports	60232*
Formal Periodic Inspections and Reports	60332*
Formal Periodic Inspections and Reports	60132*
Hydraulic Expenses	60312**
Inspection of Ecosystem Restoration Projects	60422
Inspections of Completed Works - Local Protection Projects	60223*
Instrumentation, Data Collection and Analysis	60131**
Instrumentation, Data Collection and Analysis	60231**
Instrumentation, Data Collection and Analysis	60331**
Joint Activities for Maintenance	616—1/
Joint Activities for Operations (Cat/Class 300 Multipurpose Hydropower	606—1/

TABLE C-4.2 WORK CATEGORY CODES - ALPHABETICALLY ORDERED	
DESCRIPTION	WORK CATEGORY CODE
Projects ONLY)	
Joint Costs for Boundary Monumentation and Rectification	61653
Joint Costs for Construction and Maintenance of Dredged Material Disposal Facilities	61622
Joint Costs for Dam Safety Activities	60630 1/
Joint Costs for Dam Safety Assurance Studies	60633
Joint Costs for Dam Safety Remediation of Deficiencies	61630
Joint Costs for Dredging	61620 1/
Joint Costs for Dredging Activities	61621
Joint Costs for Environmental Compliance (Remedial Actions) Activities	61660
Joint Costs for Environmental Compliance Management Activities	60660
Joint Costs for Facility Security	60690 1/
Joint Costs for Facility Security Assessments	60691
Joint Costs for Facility Security Guards, Monitoring Activities	60692
Joint Costs for Facility Security Physical Improvements, Modifications, Maintenance and Replacement	61690 1/
Joint Costs for Facility Security Maintenance and Replacement	61691
Joint Costs for Facility Security Physical Improvements and Modifications	61692
Joint Costs for Formal Periodic Inspections and Reports	60632*
Joint Costs for Instrumentation, Data Collection and Analysis	60631**
Joint Costs for Land Acquisition and Disposal Management Activities, Settlement of Claims, and Audits	61651
Joint Costs for Maintenance Activities Excluding Dredging	61610
Joint Costs for Major Rehabilitation Evaluation Reports	60622
Joint Costs for Operations Activities	60610**
Joint Costs for Real Estate Activities	61650 1/
Joint Costs for Real Estate Management Activities	60650*
Joint Costs for Resolution of Real Estate Encroachments	61652
Joint Costs for Studies and Surveys	60621*
Joint Costs for Studies and Surveys	60620 1/
Joint Costs for Water Management (Control and Quality) Activities - Operation of Water Control Data Systems	60642
Joint Costs for Water Management (Control and Quality) Activities - Analysis and Studies	60641

TABLE C-4.2
WORK CATEGORY CODES - ALPHABETICALLY ORDERED

DESCRIPTION	WORK CATEGORY CODE
Joint Costs for Water Management (Control and Quality) Activities	60640 [1/]
Joint Costs for Water Management Equipment Activities	61640
Land Acquisition and Disposal Management Activities, Settlement of Claims, and Audits for Flood Damage Reduction	61251
Land Acquisition and Disposal Management Activities, Settlement of Claims, and Audits for Environmental Stewardship	61451
Land Acquisition and Disposal Management Activities, Settlement of Claims, and Audits for Navigation	61151
Land Acquisition and Disposal Management Activities, Settlement of Claims, and Audits for Recreation	61551
Land Acquisition and Disposal Management Activities, Settlement of Claims, and Audits for Hydropower	61351
Law Enforcement – Costs and Supervision of Law Enforcement Agreements	60513
Maintenance for Environmental Stewardship	61410 [1/]
Maintenance for Environmental Stewardship Functions	614— [1/]
Maintenance for Flood Damage Reduction	61210 [1/]
Maintenance for Flood Damage Reduction Functions	612— [1/]
Maintenance for Hydropower Functions	613— [1/]
Maintenance for Navigation Functions	611— [1/]
Maintenance for Recreation	61510 [1/]
Maintenance for Recreation Functions	615— [1/]
Maintenance for Water Supply Functions	608— [1/]
Maintenance of Dams, Reservoirs, Other Structures, Service Facilities, Permanent Operating Equipment, Etc. for Flood Damage Reduction	61211
Maintenance of Dikes, Revetments, Breakwaters and Similar Structures for the Mississippi River and Tributaries (MR&T)	61212
Maintenance of Electric Plant for Hydropower	61313
Maintenance of Electric Plant for Hydropower	6131_
Maintenance of Fisheries, Fish Haulage Activities and Fish Passage Structures	61414
Maintenance of Hydraulic Structures for Hydropower	61312
Maintenance of Locks, Dams, Reservoirs, Levees, Other Structures, Service Facilities, Permanent Operating Equipment, Etc. for Navigation	61110
Maintenance of Miscellaneous Hydraulic Plant for Hydropower	61314
Maintenance of Miscellaneous Hydraulic Plant for Hydropower	61314

TABLE C-4.2 WORK CATEGORY CODES - ALPHABETICALLY ORDERED	
DESCRIPTION	WORK CATEGORY CODE
Maintenance of Natural Resources Facilities for Environmental Stewardship	61411
Maintenance of Power Plants, Dams, Reservoirs, Service Facilities, Permanent Operating Equipment, Etc. for Hydropower	61310 1/
Maintenance of Power Plants, Dams, Reservoirs, Service Facilities, Permanent Operating Equipment, Etc. for Hydropower	61310 1/
Maintenance of Project Gates, Specific Water Supply Conduits, Permanent Operating Equipment, Etc. for Water Supply	61810
Maintenance of Recreation Facilities, Other Operating Equipment, Etc.	61511
Maintenance of Special Status Species for Environmental Stewardship	61418
Maintenance of Visitor Centers	61514
Maintenance of Natural Resources Mitigation Features for Enviromental Stewardship	61413
Maintenance Supervision for Hydropower	61311
Major Rehabilitation Evaluation Reports	60122
Major Rehabilitation Evaluation Reports	60325
Major Rehabilitation Evaluation Reports	60222
Management and Curation of Archeological and Cultural Resources	60412
Management of Natural Resources for Environmental Stewardship	60411
Management of Special Status Species for Environmental Stewardship	60418
Management of Natural Resources Mitigation Features	60413
Miscellaneous Hydraulic Power Generation Expenses	60314**
Mitigation of Archeological and Cultural Resources	61412
Modernization of recreation Features	61515
National Emergency Preparedness Program (NEPP)	60710 1/
NEPP Management and Operations	60711
NEPP Requirements Analysis and Studies	60712
NEPP Support of Emergency Ops Ctr	60713
NEPP Training and Exercises	60716
Operation for Environmental Stewardship	60410 1/
Operation for Environmental Stewardship Functions	604— 1/
Operation for Flood Damage Reduction Functions	602— 1/
Operation for Hydropower Functions	603— 1/
Operation for Navigation Functions	601— 1/
Operation for Recreation	60510 1/

TABLE C-4.2
WORK CATEGORY CODES - ALPHABETICALLY ORDERED

DESCRIPTION	WORK CATEGORY CODE
Operation for Recreation Functions	605—[1/]
Operation for Water Supply	60810 [1/]
Operation for Water Supply Functions	608—[1/]
Operation of Dams, Power Plants, Reservoirs, Service Facilities, Permanent Operating Equipment, Etc. for Hydropower	60310 [1/]
Operation of Locks, Dams, Reservoirs, Service Facilities, Permanent Operating Equipment, Etc. for Flood Damage Reduction	60210**
Operation of Locks, Dams, Reservoirs, Service Facilities, Permanent Operating Equipment, Etc. for Navigation	60110 **
Operation of Project Gates, Specific Water Supply Conduits, Permanent Operating Equipment, Etc. for Water Supply	60811
Operation/management of Recreation Areas/facilities, Reservoirs, Service Facilities and Equipment, Etc. for Recreation	60511**
Operation/management of Visitor Centers	60514
Operations - Supervision and Engineering	60311**
Pest Management for Environmental Stewardship	60419
Purchase/maintenance of Water Management (Control and Quality) Equipment for Navigation	61140
Purchase/maintenance of Water Management (Control and Quality) Equipment for Flood Damage Reduction	61240
Purchase/maintenance of Water Management (Control and Quality) Equipment for Hydropower	61340
Purchase/maintenance of Water Management Equipment (Control and Quality) for Environmental Stewardship	61440
Purchase/maintenance of Water Management Equipment (Control and Quality) for Recreation	61540
Real Estate for Environmental Stewardship	61450 [1/]
Real Estate for Flood Damage Reduction	61250 [1/]
Real Estate for Hydropower	61350 [1/]
Real Estate for Navigation	61150 [1/]
Real Estate for Recreation	61550 [1/]
Real Estate Management for Environmental Stewardship	60450*
Real Estate Management for Flood Damage Reduction	60250*
Real Estate Management for Hydropower	60350*
Real Estate Management for Navigation	60150*

TABLE C-4.2 WORK CATEGORY CODES - ALPHABETICALLY ORDERED	
DESCRIPTION	WORK CATEGORY CODE
Real Estate Management for Recreation	60550*
Remaining O&M Funded Major Rehabilitation (Comprehensive Replacement) Projects for Hydropower	61370 [1/]
Remaining O&M Funded Major Rehabilitation (Comprehensive Replacement) Projects for Navigation	61170
Reserved	60530
Reserved	61530
Reserved	60430
Reserved	61430
Resolution of Real Estate Encroachments for Environmental Stewardship	61452
Resolution of Real Estate Encroachments for Flood Damage Reduction	61252
Resolution of Real Estate Encroachments for Hydropower	61352
Resolution of Real Estate Encroachments for Navigation	61152
Resolution of Real Estate Encroachments for Recreation	61552
Shoreline Management	60417
Studies and Surveys	60121*
Studies and Surveys	60221
Studies and Surveys - Electric Expenses	60323
Studies and Surveys - Hydraulic Expenses	60322
Studies and Surveys - Miscellaneous Hydraulic Power Generation Expenses	60324
Studies and Surveys - Supervision and Engineering	60321
Studies and Surveys for Flood Damage Reduction	60220 [1/]
Studies and Surveys for Hydropower	60320 [1/]
Studies and Surveys for Navigation	60120 [1/]
Studies and Surveys for Recreation	60520
Studies and Surveys for Water Supply	60820
Studies, Surveys and Inventories for Environmental Stewardship	60421
Studies, Surveys and Inventories for Environmental Stewardship	60420 [1/]
Water Management (Control and Quality) Activities - Analysis and Studies for Flood Damage Reduction	60241
Water Management (Control and Quality) Activities - Analysis and Studies for Environmental Stewardship	60441
Water Management (Control and Quality) Activities - Analysis and Studies for Recreation	60541

TABLE C-4.2
WORK CATEGORY CODES - ALPHABETICALLY ORDERED

DESCRIPTION	WORK CATEGORY CODE
Water Management (Control and Quality) Activities - Analysis and Studies for Navigation	60141
Water Management (Control and Quality) Activities - Analysis and Studies for Hydropower	60341
Water Management (Control and Quality) Activities - Operation of Water Control Data Systems for Environmental Stewardship	60442
Water Management (Control and Quality) Activities - Operation of Water Control Data Systems for Flood Damage Reduction	60242
Water Management (Control and Quality) Activities - Operation of Water Control Data Systems for Recreation	60542
Water Management (Control and Quality) Activities - Operation of Water Control Data Systems for Navigation	60142
Water Management (Control and Quality) Activities – Operation of Water Control Data Systems for Hydropower	60342
Water Management (Control and Quality) Activities for Environmental Stewardship	60440 1/
Water Management (Control and Quality) Activities for Flood Damage Reduction	60240 1/
Water Management (Control and Quality) Activities for Hydropower	60340 1/
Water Management (Control and Quality) Activities for Navigation	60140 1/
Water Management (Control and Quality) Activities for Recreation	60540 1/
Water Supply Agreements	60812

1/ SUMMARY COST ACCOUNT/WORK CATEGORY CODE - COSTS MAY NOT BE CHARGED DIRECTLY TO THESE ACCOUNTS.

2/ PERIODIC INSPECTIONS AND REPORTS, AND INSTRUMENTATION, DATA COLLECTION, AND ANALYSIS ARE TO BE INCLUDED IN THE MINIMUM PROGRAM FOR THE PROJECT TO MEET MINIMUM LEGAL RESPONSIBILITIES FOR OPERATIONS AND SAFETY. THIS FOOTNOTE APPLIES TO THE WORK CATEGORY CODES 60131, 60132, 60231, 60232, AND 60331, 60332, 60631 AND 60632.

*Work Category Codes marked with an asterisk require added data in project work description, justification statement, or output measures.

**Although Work Category Codes marked with double asterisk require no description or funding argument, requested resources will be in consonance with the funding increment and prior year experience.

O&M WORK CATEGORY CODE MATRIXES AND DEFINITIONS

C-4.3. O&M Work Category Code Matrixes and Definitions.

C-4.3.a. Operation Work Category Code Matrix by Business Line. See Table 4-3.a.

C-4.3.b. Maintenance Work Category Code Matrix by Business Line. See Table 4-3.b.

Table 4.3a and Table 4-3.b. Maintenance Work Category Code Matrix (by Business Line). See embedded excel file on pages C-2-9.

C-4.3.c. Work Category Codes and Definitions O&M Operations Accounts. The Operation functions are broken down into Work Category Codes, together with a description of work to be performed in Table 4-3.c.

C-4.3.d. Work Category Codes and Definitions O&M Maintenance Accounts. The Maintenance functions are broken down into Work Category Codes, together with a description of work to be performed in Table 4-3.d.

Section C-4.3c
Work Category Codes and Definitions
O&M Operations Accounts By Business Line:

Navigation (**601--**)
Flood Damage Reduction **(602--**)
Hydropower (**603--**)
Environmental Stewardship (**604--**)
Recreation (**605--**)
Joint Activities (**606--**)
NEPP (**607**--)
Water Supply (**608**--)

A Breakdown of Work Category Codes (WCCs) and descriptions under these functions is on the following pages:

WORK CATEGORY CODE: **60110** – Operations for Navigation

WORK CATEGORY DESCRIPTION: Operations of Locks, Dams, Reservoirs, Service Facilities (Buildings, Grounds, Utilities, and Roads, Railroads and Bridges), Permanent Operating Equipment, etc. for navigation features.

Includes all costs for the operation; necessary materials, supplies, equipment and transportation costs associated with operations; associated hired labor and contract support; routine materials and supplies; and other costs:

of lock gates and/or associated equipment; maintaining lock records; removing debris, ice and snow, cleanup of lock facilities; routine adjusting of meters, relays, instruments, radios and regular equipment; lubrication of equipment;

of dam structures and appurtenant equipment such as spillway gates, intake and outlet works, and sluiceways for reservoir regulation; removing and disposing of ice, snow, trash, and debris on or in the vicinity of the dam or dam structures; cleanup of dam structures and facilities; routine testing and adjustment of gauges, meters, instruments, and relays in dam structures; disposal and control of weeds, brush, trees, and aquatic growth in the vicinity of dam structures; and grass cutting on earth-fill dams. Includes all costs for dam safety/failure training of project personnel, preparation of flood emergency plans, dam contingency plans, dam surveillance plans, and provision for technical assistance to local interests concerning dam failure. When this account includes municipal or industrial water delivery activities, a separate sub-element should be established in CEFMS to record appropriate costs for each such facility for cost allocation purposes;

to perform reservoir inspections and patrols, removal and control of trash and debris (major periodic or one-time removal of growth and debris from the reservoir should be recorded in Work Category Code 61110); minor bank erosion control; minor cleaning of reservoir area for weeds, brush, trees, and aquatic growth; boundary surveillance and routine, recurring maintenance of boundary monumentation at projects without natural resource activities; insect control and elimination of health and safety hazards;
of project-owned permanent facilities such as administration and shop buildings, storage and garage buildings and areas, community buildings, local streets and sidewalks, landscaping, utility facilities such as electric, gas, water, and sewage, all security and protective measures, and permanent roads, including the road across the top of the dam, and parking areas near the dam, railroads, and bridges required for access and other purposes in connection with the operation of a project. It also includes bridges provided

as a project feature for the passage of highway and railway traffic over improved channels. Direct costs included are snow and ice removal from project roads, parking areas and walkways; sanding and salting project roads, parking areas and walkways; minor patching, signs, ditch cleaning, culvert cleaning and similar duties; bridge operation; cleanup of project roads, railroads, and bridges. Buildings which house operating machinery and serve other purposes as well are included in this activity, but the costs to operate the machinery are charged to the appropriate Work Categories. Buildings which house specific operating machinery, spare parts, equipment, etc., will be charged to the appropriate Work Categories. This activity includes costs of buildings, grounds and utilities related to the operation of the Los Angeles-Long Beach and San Francisco Bay hydraulic models located in South Pacific Division and it does not include costs associated with recreation facilities and areas which will be included in Work Category Code 60511; of all tools and equipment, including laboratory, shop, warehousing, communications, surveys, and transportation equipment, office furniture and equipment. Project-owned sedimentation and degradation measuring facilities, rainfall and stream-gauging devices, fixed sand bypassing systems, and like equipment are also included. Includes direct costs of automotive and other equipment. Vehicle accounts will be maintained by group classifications as provided for Revolving Fund vehicles; for prevention of obstructive and injurious deposits at NAD projects as authorized by the Act approved 29 June 1888, as amended, including all costs for surveillance at harbors, channels, waterfront construction sites, and at overboard ocean dumping sites, costs to administer outstanding enforcement actions on prior noted violations of Federal statutes, and any costs required for ground or aerial surveillance.

WORK CATEGORY CODE: **60121** – Studies and Surveys for the Navigation Function

WORK CATEGORY DESCRIPTION: Studies and Surveys including project condition surveys, dredging studies, etc. for navigation features.

Includes all costs to perform surveys for the purpose of determining elevation, grade and sedimentation conditions in navigation projects, investigation of sunken vessels, and to prepare dredging studies. For program management purposes, all projects with funding requirements (dredging or otherwise) under the Non-deferrable levels should have any needed surveys programmed under the project name. All other surveys should be programmed in aggregation under PWID 14600: Project Condition Surveys. Funding for PWID 14600: Project Condition Surveys, will be adjusted after overall dredging program levels are determined.

WORK CATEGORY CODE: **60122** - Studies and Surveys for Navigation - Major Rehabilitation Evaluation Reports

WORK CATEGORY DESCRIPTION: Major Rehabilitation Evaluation Reports for navigation features.

Includes all costs to initiate new, or continue ongoing, major rehabilitation evaluation reports. Operation and Maintenance (O&M) funds are to be used only until Construction (C) funds are allocated to the project.

WORK CATEGORY CODE: **60123** - Studies and Surveys for Navigation - Environmental Studies and Monitoring for Dredging Purposes

WORK CATEGORY DESCRIPTION: Environmental Studies and Monitoring for Dredging Purposes.

Includes all costs for environmental studies and monitoring for dredging purposes including all costs of study and analysis activities associated with long range environmental activities related to waterways. These activities are needed to ensure that appropriate information and requirements are fulfilled so that

E&D for dredging can be completed on a timely basis. Dredged Material Management Plans (DMMPs) are included in this Work Category. Environmental requirements to perform maintenance dredging of Federal channels (e.g. water quality certification, bio-assays, water quality testing, Environmental Impact Statements, and environmental assessments) should also be included in this Work Category.

WORK CATEGORY CODE: **60131** - Instrumentation, Data Collection and Analysis for Dam Safety related to the Navigation Function

WORK CATEGORY DESCRIPTION: Instrumentation for Engineering Analysis and Continuing Evaluation Data Gathering Inspections, and Data Analysis for Dam Safety related to navigation features.

Includes all costs for the operation of instruments in existing dam structures for safety evaluation and all costs of obtaining, analyzing and reporting instrumentation data for purposes consistent with an approved plan. This includes instrumentation for measuring horizontal and vertical movement, stresses and strains, pore pressure, phreatic surfaces, seismic effects, and seepage clarity and quality.

WORK CATEGORY CODE: **60132** - Formal Periodic Inspections and Reports for Dam Safety related to the Navigation Function

WORK CATEGORY DESCRIPTION: Formal Periodic Inspections and Reports for Dam Safety related to navigation features.

Includes all costs related to the scheduled periodic inspections and reporting of projects and bridges needed to meet inspection frequency requirements of ER 1110-2-100 as follows:

(a) Dams, locks and dams, initial and second inspections if funded under O&M General, and high hazard structures.

(b) Public Bridges.
(c) Structures whose failure would be a major loss to the national infrastructure or cause severe economic distress.

(d) Other projects where known conditions warrant inspections at a frequency more often than normal including revetments, dikes, groins, breakwaters, jetties, seawalls, piers and other similar structures provided in seas, lakes, rivers, canals, exposed tidal waters and harbors.

WORK CATEGORY CODE: **60133** - Dam Safety Assurance Studies related to the Navigation Function

WORK CATEGORY DESCRIPTION: Dam Safety Assurance Studies for Dam Safety related to navigation features.

Includes all costs of reconnaissance studies and special engineering investigations for known or suspected dam safety deficiencies, e.g. seismic evaluations, seepage studies, erosion studies, etc.

WORK CATEGORY CODE: **60141** - Water Management (Control and Quality) Activities for Navigation - Analysis and Studies

WORK CATEGORY DESCRIPTION: Water Management (Control and Quality) Activities - Analysis, Studies and Regulation Instructions for navigation features.

Includes all costs for personnel and space to manage the hydrologic, hydraulic and meteorological data required for water control and quality activities in accordance with the current water control/quality plan; all costs to prepare routine regulation instructions and runoff forecasts, coordinate with other agencies and entities, prepare water control manuals, disseminate water control information, training, travel and other associated costs required to make sound water control management decisions; all costs for reservoir and river analyses to improve the quality of water within and downstream from the reservoirs; and all costs related to studies of the means to mitigate water quality problems and studies to determine present and future water quality needs. Also includes all costs for water management studies to improve efficiency or mitigate constraints on approved plans of regulation, annual updating of notification lists, and funds transferred to other agencies and any similar items needed to accomplish this activity. This includes development of the water quality component of water control manuals and daily decisions on multi-level releases and pro-rata share of office and computer facilities and other related costs associated with water management. Included also are costs to calibrate and make operational the forecasting and decision support models within the new Corps Water Management System (CWMS). Costs for data collection are included in Work Category Code 60142.

WORK CATEGORY CODE: **60142** - Water Management (Control and Quality) Activities for Navigation - Operation of Water Control Data Systems

WORK CATEGORY DESCRIPTION: Water Management (Control and Quality) Activities - Operation of Water Control Data Systems including Data Collection for navigation features.
Includes all costs for the operation of equipment, personnel and space to collect and process the hydrologic, hydraulic and meteorological data required for water control and quality activities in accordance with the current plan, data collection, and pro-rata share of office and computer facilities and other related costs associated with operations of water management data systems including the new Corps Water Management System (CWMS). Includes all costs to coordinate with other agencies and entities, training, travel, funds transferred to other agencies, and other associated costs required for operation of water management data systems. Costs for purchase and maintenance of new water control data systems equipment are included in Work Category Code 61140.

WORK CATEGORY CODE: **60150** - Real Estate Management for the Navigation Function

WORK CATEGORY DESCRIPTION: Real Estate Management including Compliance, and Utilization Inspections for navigation features.

Includes all costs, including contractual services, incident to granting to others the use of and performing inspections of property for purposes such as commercial concessions, industrial uses, public park and recreation, quasi-public and group camp use, fish and wildlife habitat management, selected agricultural and grazing uses and reconveyance clauses (restrictions) in deeds. Also includes granting use of and performing inspections of property granted and reserved to others for purposes such as road, street, waterline, powerline, and communication rights-of-way, as well as requests to drill for oil or gas on Government owned property where no oil or gas lease is required, and other uses covered by easements, licenses, and permits. Includes report preparation, determination of compliance after vacation of property subsequent to expiration or revocation of grant, and corrective measures where non-compliance is noted. Also includes appraisals, surveys, mapping, negotiations, preparation and execution of outgrants, renewal, extension, cancellation/termination documents, responses to request for use of real or related personal property, Executive Order surveys and public land withdrawals (applies to the 11 western states). Includes costs of utilization inspections of real property under the control of or subject to a service agreement with the Corps or the Government, and real property accountability, including real property inventory updates and preparation of annual civil-owned property reports (GSA 1166).

WORK CATEGORY CODE: **60160** - Environmental Compliance Management for the Navigation Function

WORK CATEGORY DESCRIPTION: Environmental Compliance Management for navigation features.

Includes all Navigation operational costs to comply with applicable Federal environmental laws and regulations, including the National Environmental Policy Act (NEPA), Safe Drinking Water Act, Resource Conservation and Recovery Act (RCRA), Clean Air Act, Hazardous Materials Transportation Act, Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), EO 13148, and applicable state and local regulations. Includes cost to complete annual environmental compliance assessment (external or internal). Federal, DOD and Corps of Engineers requirements are described in the ERGO/TEAM environmental assessment manuals. Includes all costs associated with management and oversight of environmental compliance operational activities related to the Navigation function. Includes costs associated with the following activities environmental compliance activities for maintenance shops supporting Navigation; environmental baseline inspection of outgrants and right-of-ways on lands allocated for operations; required personnel environmental training; development and update of required environmental plans for spill prevention, hazard communication, pollution prevention, hazardous material management; storage and handling of petroleum-oil & lubricants and preparation of pesticide reports and corresponding documentation. Includes costs associated with implementation and maintaining an Environmental Management System (EMS) which may be cost shared with other functions. Costs include salaries, training, materials, supplies, regulatory fees, drinking water and waste analysis, inspection of waste collection and disposal facilities. Costs associated with medical surveillance and other employee health and safety requirements are not included.

WORK CATEGORY CODE: **60170**

WORK CATEGORY DESCRIPTION: Reserved.

WORK CATEGORY CODE: **60180**

WORK CATEGORY DESCRIPTION: Reserved.

WORK CATEGORY CODE: **60191** – Facility Security Assessments for Navigation

WORK CATEGORY DESCRIPTION: Facility Security – Assessments, reviews, studies and analyses for navigation features.

Includes all costs to conduct and prepare security risk assessments, reviews, evaluations, studies and analyses for facility security related to criminal and terrorist activities. Includes costs to evaluate threats, consequences and security system effectiveness for navigation features. Also includes costs to prepare or revise Emergency Action Plans and plans to address facility protection and security, training and appropriate coordination with other agencies as they relate to criminal and terrorist activities. Costs for guards and surveillance activities are included in Work Category Code 60192, and costs to acquire, install and maintain structural and physical improvements for security are included in Work Category Code 61190.

WORK CATEGORY CODE: **60192** – Facility Security Guards, Monitoring Activities for Navigation

WORK CATEGORY DESCRIPTION: Facility Security – Guards and Monitoring Activities for navigation

features.

Includes all costs for guards and security system monitoring activities including training of personnel for facility security related to criminal and terrorist activities. Costs for assessments are included in Work Category Code 60191, and costs to acquire, install and maintain structural and physical improvements for security are included in Work Category Code 61190.

WORK CATEGORY CODE: **60210** - Operations for Flood Damage Reduction

WORK CATEGORY DESCRIPTION: Operations of Dams, Reservoirs, Levees, Hurricane Barrier Gates, and Other Flood Damage Reduction Non-Dam Structures, Pumping Plants, Service Facilities (Buildings, Grounds, Utilities, and Roads, Railroads and Bridges), Permanent Operating Equipment, etc. for flood damage reduction features.

Includes all costs for the operation; necessary materials, supplies, equipment and transportation costs associated with operations; associated hired labor and contract support; routine materials and supplies; and other costs:

of dam structures and appurtenant equipment such as spillway gates, intake and outlet works, and sluiceways for reservoir regulation; removing and disposing of ice, snow, trash, and debris on or in the vicinity of the dam or dam structures; cleanup of dam structures and facilities; routine testing and adjustment of gauges, meters, instruments, and relays in dam structures; disposal and control of weeds, brush, trees, and aquatic growth in the vicinity of dam structures; and grass cutting on earth-fill dams. Includes all costs for dam safety/failure training of project personnel, preparation of flood emergency plans, dam contingency plans, dam surveillance plans, and provision for technical assistance to local interests concerning dam failure. When this account includes municipal or industrial water delivery activities, a separate sub-element should be established in CEFMS to record appropriate costs for each such facility for cost allocation purposes;

to perform reservoir inspections and patrols, removal and control of trash and debris (major periodic or one-time removal of growth and debris from the reservoir should be recorded under Work Category Code 61210); minor bank erosion control; minor cleaning of reservoir area for weeds, brush, trees, and aquatic growth; boundary surveillance and routine, recurring maintenance of boundary monumentation at projects without natural resource activities, insect control and elimination of health and safety hazards;

of levees, hurricane barrier gates, and other gated non-dam flood damage reduction structures; vegetation control on flood damage reduction structures; removal of snow and ice from structures;

of pumping plants, pumps and associated equipment; collecting and maintaining operational records; routine replacement, purification and testing of insulating, lubricating and hydraulic oils; lubricants and lubricating equipment; minor maintenance of electrical equipment, cleaning, testing, and adjustment of motor starters, relays, meters, and similar equipment; minor maintenance and repair of pumps, motors, engines, trash raking equipment, gate hoists, gates, fire fighting, and other equipment required for operation; minor maintenance of buildings, roads, and grounds; removal of debris, ice, and snow;

of project-owned permanent facilities such as administration and shop buildings, storage and garage buildings and areas, community buildings, local streets and sidewalks, landscaping, utility

facilities such as electric, gas, water, and sewage, all security and protective measures, and permanent roads, including the road across the top of the dam, and parking areas near the dam, railroads, and bridges required for access and other purposes in connection with the operation of a project. It also includes bridges provided as a project feature for the passage of highway and railway traffic over improved channels. Direct costs included are snow and ice removal from project roads, parking areas and walkways; sanding and salting project roads, parking areas and walkways; minor patching, signs, ditch cleaning, culvert cleaning and similar duties; bridge operation; cleanup of project roads, railroads, and bridges. Buildings which house operating machinery and serve other purposes as well are included in this activity, but the costs to operate the machinery are charged to the appropriate Work Categories. Buildings which house specific operating machinery, spare parts, equipment, etc., will be charged to the appropriate Work Categories. This activity does not include costs associated with recreation facilities and areas which will be included in Work Category Code 60511;

of all tools and equipment, including laboratory, shop, warehousing, communications, surveys, and transportation equipment, office furniture and equipment. Project-owned sedimentation and degradation measuring facilities, rainfall and stream-gauging devices, fixed sand bypassing systems, and like equipment are also included. Includes direct costs of automotive and other equipment. Vehicle accounts will be maintained by group classifications as provided for Revolving Fund vehicles.

Does not include specific Water Supply activities as in the past. Water Supply activities including that required by water supply contracts, collections including delinquencies and the renegotiation of existing water supply contracts are now included in WCCs 60811 and 60812.

WORK CATEGORY CODE: **60221** - Studies and Surveys for the Flood Damage Reduction Function

WORK CATEGORY DESCRIPTION: Non-Navigation Project Condition Studies, including Dredging Studies, for flood damage reduction features.
Includes all costs to prepare reconnaissance reports or studies related to the maintenance and rehabilitation of Civil Works projects such as foundation reports, embankment criteria, O&M manuals, sediment surveys at flood damage reduction projects, surveillance of northern boundary waters, and hydraulic model analyses prior to the engineering and design phase. Does not include Water Supply reallocation study costs as in the past. Water Supply reallocation study costs are now included in WCC 60820.

WORK CATEGORY CODE: **60222** - Studies and Surveys for Flood Damage Reduction - Major Rehabilitation Evaluation Reports

WORK CATEGORY DESCRIPTION: Major Rehabilitation Evaluation Reports for flood damage reduction features.

Includes all costs to initiate new, or continue ongoing, major rehabilitation evaluation reports. Operation and Maintenance (O&M) funds are to be used only until Construction (C) funds are allocated to the project.

WORK CATEGORY CODE: **60223** – Studies, Surveys and Inspections of Completed Works - Local Protection Projects

WORK CATEGORY DESCRIPTION: Studies, Surveys and Inspections of Local Protection Projects for flood damage reduction features.

Includes all costs related to the inspection of Federally constructed, locally operated and maintained projects to ensure compliance with local cooperative agreements. This Work Category does not include costs for projects covered by PL 84-99. Includes all costs for technical review and approval of sponsor-proposed alterations, improvements, excavation or construction within the limits of the project right-of-way; advice given to sponsors related to the effects of such activities on the function/operation of the project and information on acceptable construction methods; all costs to update O&M Manuals; initial funding of reconnaissance or evaluation reports; and PED for major rehabilitation, dam safety assurance, deficiency correction and reconstruction as applicable until Construction (C) funds are allocated.

WORK CATEGORY CODE: **60231** - Instrumentation, Data Collection and Analysis for Dam Safety related to the Flood Damage Reduction Function

WORK CATEGORY DESCRIPTION: Instrumentation for Engineering Analysis and Continuing Evaluation Data Gathering Inspections, and Data Analysis for Dam Safety related to flood damage reduction features.

Includes all costs for the operation of instruments in existing dam structures for safety evaluation and all costs of obtaining, analyzing and reporting instrumentation data for purposes consistent with an approved plan. This includes instrumentation for measuring horizontal and vertical movement, stresses and strains, pore pressure, phreatic surfaces, seismic effects, and seepage clarity and quality.

WORK CATEGORY CODE: **60232** - Formal Periodic Inspections and Reports for Dam Safety related to the Flood Damage Reduction Function

WORK CATEGORY DESCRIPTION: Formal Periodic Inspections and Reports for Dam Safety related to flood damage reduction features.

Includes all costs related to the scheduled periodic inspections and reporting of projects and bridges needed to meet inspection frequency requirements of ER 1110-2-100 as follows:

(a) Dams, locks and dams, initial and second inspections if funded under O&M General, and high hazard structures.

(b) Public Bridges.

(c) Structures whose failure would be a major loss to the national infrastructure or cause severe economic distress.

(d) Other projects where known conditions warrant inspections at a frequency more often than normal.

WORK CATEGORY CODE: **60233** - Dam Safety Assurance Studies related to the Flood Damage Reduction Function

WORK CATEGORY DESCRIPTION: Dam Safety Assurance Studies for Dam Safety related to flood damage reduction features.

Includes all costs of reconnaissance studies and special engineering investigations for known or suspected dam safety deficiencies, e.g. seismic evaluations, seepage studies, erosion studies, etc.

WORK CATEGORY CODE: **60241** - Water Management (Control and Quality) Activities for Flood Damage Reduction - Analysis and Studies

60241 - Water Management (Control and Quality) Activities for Flood Damage Reduction - Analysis and Studies

Includes all costs for personnel and space to manage the hydrologic, hydraulic and meteorological data required for water control and quality activities in accordance with the current water control/quality plan; all costs to prepare routine regulation instructions and runoff forecasts, coordinate with other agencies and entities, prepare water control manuals, disseminate water control information, training, travel and other associated costs required to make sound water control management decisions; all costs for reservoir and river analyses to improve the quality of water within and downstream from the reservoirs; and all costs related to studies of the means to mitigate water quality problems and studies to determine present and future water quality needs. Also includes all costs for water management studies to improve efficiency or mitigate constraints on approved plans of regulation, annual updating of notification lists, and funds transferred to other agencies and any similar items needed to accomplish this activity. This includes development of the water quality component of water control manuals and daily decisions on multi-level releases and pro-rata share of office and computer facilities and other related costs associated with water management. Included also are costs to calibrate and make operational the forecasting and decision support models within the new Corps Water Management System (CWMS). Costs for data collection are included in Work Category Code 60242.

WORK CATEGORY CODE: **60242** - Water Management (Control and Quality) Activities for Flood Damage Reduction - Operation of Water Control Data Systems

WORK CATEGORY DESCRIPTION: Water Management (Control and Quality) Activities - Operation of Water Control Data Systems including Data Collection for flood damage reduction features.
Includes all costs for the operation of equipment, personnel and space to collect and process the hydrologic, hydraulic and meteorological data required for water control and quality activities in accordance with the current plan, data collection, and pro-rata share of office and computer facilities and other related costs associated with operations of water management data systems including the new Corps Water Management System (CWMS). Includes all costs to coordinate with other agencies and entities, training, travel, funds transferred to other agencies, and other associated costs required for operation of water management data systems. Costs for purchase and maintenance of new water control data systems equipment are included in Work Category Code 61240.

WORK CATEGORY CODE: **60250** - Real Estate Management for the Flood Damage Reduction Function

WORK CATEGORY DESCRIPTION: Real Estate Management including Compliance, and Utilization Inspections for flood damage reduction features.

Includes all costs, including contractual services, incident to granting to others the use of and performing inspections of property for purposes such as commercial concessions, industrial uses, public park and recreation, quasi-public and group camp use, fish and wildlife habitat management, selected agricultural and grazing uses and reconveyance clauses (restrictions) in deeds. Also includes granting use of, and performing inspections of property granted and reserved to others for purposes such as road, street, waterline, powerline, and communication rights-of-way, as well as requests to drill for oil or gas on Government owned property where no oil or gas lease is required, and other uses covered by easements, licenses, and permits. Includes report preparation, determination of compliance after

vacation of property subsequent to expiration or revocation of grant, and corrective measures where non-compliance is noted. Also includes appraisals, surveys, mapping, negotiations, preparation and execution of outgrants, renewal, extension, cancellation/termination documents, responses to request for use of real or related personal property, Executive Order surveys and public land withdrawals (applies to the 11 western states). Includes costs of utilization inspections of real property under the control of or subject to a service agreement with the Corps or the Government. Includes reconciliation of financial records with flood damage reduction land and mineral lease receipts, andreal property accountability, including real property inventory updates and preparation of annual civil-owned property reports (GSA 1166).

WORK CATEGORY CODE: **60260** - Environmental Compliance Management for the Flood Damage Reduction Function

WORK CATEGORY DESCRIPTION: Environmental Compliance Management for flood damage reduction features.

Includes all Flood Damage Reduction operational costs to comply with applicable Federal environmental laws and regulations, including the National Environmental Policy Act (NEPA), Safe Drinking Water Act, Resource Conservation and Recovery Act (RCRA), Clean Air Act, Hazardous Materials Transportation Act, Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), EO 13148, and applicable state and local regulations. Includes cost to complete annual environmental compliance assessment, external and internal. Federal, DOD and Corps of Engineers requirements are described in the ERGO/TEAM environmental assessment manuals. Includes all costs associated with management and oversight of environmental compliance operational activities related to the Flood Damage Reduction Function. Includes costs associated with the following activities environmental compliance activities for maintenance shops supporting Flood Damage Reduction; environmental baseline inspection of outgrants and right-of-ways on lands allocated for operations; required personnel environmental training; development and update of required environmental plans for spill prevention, hazard communication, pollution prevention, hazardous material management; underground storage tanks, storage and handling of pesticides and petroleum-oil & lubricants. Includes costs associated with implementation and maintaining an Environmental Management System (EMS) which may be cost shared with other business lines. Includes costs associated with implementation and maintaining an Environmental Management System (EMS) which may be cost shared with other functions. Costs include salaries, training, materials, supplies, regulatory fees, drinking water and waste analysis, inspection of waste collection and disposal facilities, and internal and external environmental compliance assessments. Costs associated with medical surveillance and other employee health and safety requirements are not included. This Work Category also includes all costs for the management and curation of Orphan Collections and archeological materials collected from early local protection projects and subsequently turned over to local sponsors for operation and maintenance. All other costs for management and curation of archeological resources are included in Work Category Code 60412.

WORK CATEGORY CODE: **60270**

WORK CATEGORY DESCRIPTION: Reserved.

WORK CATEGORY CODE: **60280**

WORK CATEGORY DESCRIPTION: Reserved.

WORK CATEGORY CODE: **60291** – Facility Security Assessments for Flood Damage Reduction

WORK CATEGORY DESCRIPTION: Facility Security – Assessments, reviews, studies and analyses for flood damage reduction features.

Includes all costs to conduct and prepare security risk assessments, reviews, evaluations, studies and analyses for facility security related to criminal and terrorist activities. Includes costs to evaluate threats, consequences and security system effectiveness for flood damage reduction features. Also includes costs to prepare or revise Emergency Action Plans and plans to address facility protection and security, training and appropriate coordination with other agencies as they relate to criminal and terrorist activities. Costs for guards and surveillance activities are included in Work Category Code 60292, and costs to acquire, install and maintain structural and physical improvements for security are included in Work Category Code 61290.

WORK CATEGORY CODE: **60292** – Facility Security Guards, Monitoring Activities for Flood Damage Reduction

WORK CATEGORY DESCRIPTION: Facility Security – Guards and Monitoring Activities for flood damage reduction features.

Includes all costs for guards and security system monitoring activities including training of personnel for facility security related to criminal and terrorist activities. Costs for assessments are included in Work Category Code 60291, and costs to acquire, install and maintain structural and physical improvements for security are included in Work Category Code 61290.

WORK CATEGORY CODE: **60310 (60311-60314)** - Hydropower Operations. Costs for this function will be sub-divided as follows:

60311 - Hydropower Operations - Supervision and Engineering, FERC #535. Costs for labor, materials and other expenses incurred in the general supervision of the operation of hydraulic generating stations. Direct supervision of specific activities will be charged to the appropriate accounts;

60312 - Hydropower Operations - Hydraulic Expenses, FERC #537. Costs for labor, materials and other expenses incurred in operating power intake works whether or not the powerhouse is an integral part of the intake dam;

60313 - Hydropower Operations - Electric Expenses, FERC #538. Costs for labor, materials and other expenses incurred in operating turbines, generators, auxiliary apparatus, switchgear and other electric equipment to the point where electricity leaves for transmission by the marketing agency or other project. Keeping plant logs and records, and preparing reports of operation are included herein;

60314 - Hydropower Operations - Miscellaneous Hydraulic Power Generation Expenses, FERC #539. Costs for labor, materials and other expenses not specifically provided for in other power plant operation accounts. Includes costs for custodial and other administrative services.

WORK CATEGORY DESCRIPTION: Operations of Power Plants.

Includes specific costs for the general supervision and engineering associated with the operation; routine materials, supplies, equipment and transportation costs; associated hired labor and contract support; and other costs: :

of power plants including hydraulic generating stations, and their associated power intake structures, turbines, generators, auxiliary apparatus, switchgear, and other electrical or electronic equipment to the point where electricity leaves for transmission by the marketing agency or project. Includes miscellaneous costs such as custodial, administrative services and training power plant trainees including labor. Costs not specific to hydropower will be included in Work Category Code 60610.

WORK CATEGORY CODE: **60320 (60321-60324)** - Studies and Surveys for the Hydropower Function Costs for this function will be sub-divided as follows:

60321 - Studies and Surveys - Supervision and Engineering, FERC #535. Costs for labor, materials and other expenses incurred in the general supervision of the operation of hydraulic generating stations. Direct supervision of specific activities will be charged to the appropriate accounts;

60322 - Studies and Surveys - Hydraulic Expenses, FERC #537. Costs for labor, materials and other expenses incurred in operating power intake works whether or not the powerhouse is an integral part of the intake dam;

60323 - Studies and Surveys - Electric Expenses, FERC #538. Costs for labor, materials and other expenses incurred in operating turbines, generators, auxiliary apparatus, switchgear and other electric equipment to the point where electricity leaves for transmission by the marketing agency or other project;

60324 - Studies and Surveys - Miscellaneous Hydraulic Power Generation Expenses, FERC #539. Costs for labor, materials and other expenses not specifically provided for in other power plant operation accounts.

WORK CATEGORY DESCRIPTION: Studies and Surveys for hydropower features.

Includes all costs to prepare reconnaissance reports or studies related to the maintenance and rehabilitation of hydropower projects such as foundation reports, embankment criteria, O&M manuals, sediment surveys and hydraulic model analyses prior to the engineering and design phase.

WORK CATEGORY CODE: **60325** - Studies and Surveys for Hydropower - Major Rehabilitation Evaluation Reports

WORK CATEGORY DESCRIPTION: Major Rehabilitation Evaluation Reports for hydropower features.

Includes all costs for specific hydropower purposes to initiate new, or continue ongoing, major rehabilitation evaluation reports. Operation and Maintenance (O&M) funds are to be used only until Construction (C) funds are allocated to the project.

WORK CATEGORY CODE: **60331** - Instrumentation, Data Collection and Analysis for Dam Safety related to the Hydropower Function, FERC #537

WORK CATEGORY DESCRIPTION: Instrumentation for Engineering Analysis and Continuing Evaluation Data Gathering Inspections, and Data Analysis for Dam Safety related to hydropower features.

Includes all specific costs for the operation of instruments in existing dam structures for safety evaluation and all costs of obtaining, analyzing and reporting instrumentation data for purposes consistent with an

approved plan. This includes instrumentation for measuring horizontal and vertical movement, stresses and strains, pore pressure, phreatic surfaces, seismic effects, and seepage clarity and quality.

WORK CATEGORY CODE: **60332** - Formal Periodic Inspections and Reports for Dam Safety related to Hydropower Activities, FERC #537

WORK CATEGORY DESCRIPTION: Formal Periodic Inspections and Reports for Dam Safety related to hydropower features.

Includes all specific costs related to the scheduled periodic inspections and reporting of projects and bridges needed to meet inspection frequency requirements of ER 1110-2-100 as follows:

(a) Dams, locks and dams, initial and second inspections if funded under O&M General, and high hazard structures.

(b) Public Bridges.

(c) Structures whose failure would be a major loss to the national infrastructure or cause severe economic distress.

(d) Other projects where known conditions warrant inspections at a frequency more often than normal.

WORK CATEGORY CODE: **60333** - Dam Safety Assurance Studies related to the Hydropower Function, FERC #537

WORK CATEGORY DESCRIPTION: Dam Safety Assurance Studies for Dam Safety activities related to hydropower features.

Includes all specific costs of reconnaissance studies and special engineering investigations for known or suspected dam safety deficiencies, e.g. seismic evaluations, seepage studies, erosion studies, etc.

WORK CATEGORY CODE: **60341** - Water Management (Control and Quality) Activities for Hydropower - Analysis and Studies, FERC #537

WORK CATEGORY DESCRIPTION: Water Management (Control and Quality) Activities - Analysis, Studies and Regulation Instructions for hydropower features.

Includes all costs for personnel and space to manage the hydrologic, hydraulic and meteorological data required for water control and quality activities in accordance with the current water control/quality plan; all costs to prepare routine regulation instructions and runoff forecasts, coordinate with other agencies and entities, prepare water control manuals, disseminate water control information, training, travel and other associated costs required to make sound water control management decisions; all costs for reservoir and river analyses to improve the quality of water within and downstream from the reservoirs; and all costs related to studies of the means to mitigate water quality problems and studies to determine present and future water quality needs. Also includes all costs for water management studies to improve efficiency or mitigate constraints on approved plans of regulation, annual updating of notification lists, and funds transferred to other agencies and any similar items needed to accomplish this activity. This includes development of the water quality component of water control manuals and daily decisions on multi-level releases and pro-rata share of office and computer facilities and other related costs associated with water management. Included also are costs to calibrate and make operational the forecasting and

decision support models within the new Corps Water Management System (CWMS). Costs for data collection are included in Work Category Code 60342.

WORK CATEGORY CODE: **60342** - Water Management (Control and Quality) Activities for Hydropower - Operation of Water Control Data Systems, FERC #537

WORK CATEGORY DESCRIPTION: Water Management (Control and Quality) Activities - Operation of Water Control Data Systems including Data Collection for hydropower features.

Includes all costs for the operation of equipment, personnel and space to collect and process the hydrologic, hydraulic and meteorological data required for water control and quality activities in accordance with the current plan, data collection, and pro-rata share of office and computer facilities and other related costs associated with operations of water management data systems including the new Corps Water Management System (CWMS). Includes all costs to coordinate with other agencies and entities, training, travel, funds transferred to other agencies and other associated costs required for operation of water management data systems. Costs for purchase and maintenance of new water control data systems equipment are included in Work Category Code 61340.

WORK CATEGORY CODE: **60350** - Real Estate Management for the Hydropower Function, FERC #537

WORK CATEGORY DESCRIPTION: Real Estate Management including Compliance, and Utilization Inspections for hydropower features.

Includes all costs, including contractual services, incident to granting to others the use of and performing inspections of property for purposes such as commercial concessions, industrial uses, public park and recreation, quasi-public and group camp use, fish and wildlife habitat management, selected agricultural and grazing uses and reconveyance clauses (restrictions) in deeds. Also includes granting use of and performing inspections of property granted and reserved to others for purposes such as road, street, waterline, powerline, and communication rights-of-way, as well as requests to drill for oil or gas on Government owned property where no oil or gas lease is required, and other uses covered by easements, licenses, and permits. Includes report preparation, determination of compliance after vacation of property subsequent to expiration or revocation of grant, and corrective measures where non-compliance is noted. Also includes appraisals, surveys, mapping, negotiations, preparation and execution of outgrants, renewal, extension, cancellation/termination documents, responses to request for use of real or related personal property, Executive Order surveys and public land withdrawals (applies to the 11 western states). Includes costs of utilization inspections of real property under the control of or subject to a service agreement with the Corps or the Government, and real property accountability, including real property inventory updates and preparation of annual civil-owned property reports (GSA 1166).

WORK CATEGORY CODE: **60360** - Environmental Compliance Management for the Hydropower Function, FERC #539

WORK CATEGORY DESCRIPTION: Environmental Compliance Management for hydropower features.

Includes all Hydropower operational costs to comply with applicable Federal environmental laws and regulations, including the National Environmental Policy Act (NEPA) Safe Drinking Water Act, Resource Conservation and Recovery Act (RCRA), Clean Air Act, Hazardous Materials Transportation Act, Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), EO 13148, and applicable state and local regulations. Includes cost to complete annual environmental compliance

assessment, external and internal. Federal, DOD and Corps of Engineers requirements are described in the ERGO/TEAM environmental assessment manuals. Includes all costs associated with management and oversight of environmental compliance operational activities. related to the Hydropower function. Includes costs associated with implementation and maintaining and Environmental Management System (EMS). Costs include salaries, training, materials, supplies, regulatory fees, drinking water and waste analysis, inspection of waste collection and disposal facilities, and internal and external environmental compliance assessments. Costs associated with medical surveillance and other employee health and safety requirements are not included.

WORK CATEGORY CODE: **60370**

WORK CATEGORY DESCRIPTION: Reserved.

WORK CATEGORY CODE: **60380**

WORK CATEGORY DESCRIPTION: Reserved.

WORK CATEGORY CODE: **60391** – Facility Security Assessments for Hydropower

WORK CATEGORY DESCRIPTION: Facility Security – Assessments, reviews, studies and analyses for hydropower features.

Includes all costs to conduct and prepare security risk assessments, reviews, evaluations, studies and analyses for facility security related to criminal and terrorist activities. Includes costs to evaluate threats, consequences and security system effectiveness for hydropower features. Also includes costs to prepare or revise Emergency Action Plans and plans to address facility protection and security, training and appropriate coordination with other agencies as they relate to criminal and terrorist activities. Costs for guards and surveillance activities are included in Work Category Code 60392, and costs to acquire, install and maintain structural and physical improvements for security are included in Work Category Code 61390.

WORK CATEGORY CODE: **60392** – Facility Security Guards, Monitoring Activities for Hydropower

WORK CATEGORY DESCRIPTION: Facility Security – Guards and Monitoring Activities for hydropower features.

Includes all costs for guards and security system monitoring activities including training of personnel for facility security related to criminal and terrorist activities. Costs for assessments are included in Work Category Code 60391, and costs to acquire, install and maintain structural and physical improvements for security are included in Work Category Code 61390.

WORK CATEGORY CODE: **60411** - Management of Natural Resources for Environmental Stewardship

WORK CATEGORY DESCRIPTION: Management of Natural Resources and Operational Management Plans.

Includes all costs for the management and operations;

of natural resources to foster healthy and sustainable lands and waters, including the conservation and protection of soil, water, wetland, forest, vegetation, waterfowl, fish and wildlife, grasslands and range,

and other resources essential to the total management of specific projects; salaries, equipment, supplies; managing areas under license or outlease, spawning beds, fish shelters, fish and waterfowl impoundments; forest/woodland management activities, timber salvage (NOTE: Do not include commodity (e.g. timber, crops, sand) sales cost or other natural resources management activity costs that are expected to be funded by the proceeds from the sale of project commodities), timber trespass surveillance, timber cruising, stand improvement, development and maintenance of fire lines, forest fire suppression, prescribed burning and haul road maintenance; conducting vegetation plantings, fertilization, maintain riparian vegetation, establishing wildlife food plots, manipulating vegetation; conducting wildlife habitat preservation management or improvement activities; range management; erosion control; conducting citation authority programs outside developed recreation areas that involve the protection of natural resources; conducting interpretive programs for the stewardship of natural resources; and boundary surveillance and routine, recurring maintenance of boundary monumentation required for protection of managed stewardship lands or environmentally sensitive areas. This Work Category excludes costs associated with fish hatcheries and fish passage. Natural resources activities conducted for the enhancement of recreation areas, e.g. management or control of nuisance wildlife including geese, nutria, woodchucks, and swallows in recreation areas, will be charged to Work Category Code 60511;of Operational Management Plans, including all costs for salaries, supplies and materials, and equipment related to the preparation and updating of Operational Management Plans and supplements. Charges may include field units that perform data collection and analysis.

WORK CATEGORY CODE: **60412** - Management and Curation of Archeological and Cultural Resources

WORK CATEGORY DESCRIPTION: Management and Curation of Archeological and Cultural Resources.

Includes all costs for the management of, and annual maintenance curation costs for, archeological and cultural resources including identification, surveillance, studies, literature searches, reconnaissance surveys, inventory, subsurface testing, development and update of management plans and agreements for historical, archaeological and cultural resources, archeological and cultural resources outreach and educational programs, coordination with Tribal interests, operations activities associated with identified historical, archaeological and cultural resources, and enforcement of Title 36 Code of Federal Regulations, the National Historic Preservation Act of 1966, the Archeological Resources Protection Act of 1979 and other applicable laws and regulations. (Do not include funding requirements for activities to ensure compliance with Section 5-7 of the Native American Graves Protection and Repatriation Act (NAGPRA). These costs will be budgeted as a Remaining Items Activity. See para. C-2.13 of this Annex.). Costs for Orphan Collections are included in Work Category Code 60260.

WORK CATEGORY CODE: **60413** - Management of Natural Resources Mitigation Features

WORK CATEGORY DESCRIPTION: Management of Natural Resources Mitigation Features.

Includes all costs for the management and operations of authorized mitigation activities including costs to comply with mitigation requirements specified in Federal law, Congressional legislation, or in HQ approved project authorization decision document, to offset unavoidable natural resources and ecological losses caused by the construction of the project or by project operation activities. This Work Category does not include acquisition costs.

WORK CATEGORY CODE: **60414** - Fisheries Management - Operation of Fish Hatcheries

WORK CATEGORY DESCRIPTION: Fisheries Management – Operation of Fish Hatcheries.

Includes all costs for salaries, equipment, supplies and all costs associated with the operation, of fish hatcheries, egg collecting stations and related facilities for provision of fish propagation. It excludes fisheries development activities included in Work Category Code 60411.

WORK CATEGORY CODE: **60415** - Fisheries Management - Fish Hauling Activities and Fish Passage Structures

WORK CATEGORY DESCRIPTION: Fisheries Management - Fish Hauling Activities and Fish Passage Structures.

Includes all costs associated with operation of facilities and equipment for collecting, trapping, transportation and passage of fish at dams and navigation facilities. Facilities include ladders, nets, elevators and locks. It excludes fisheries development activities included in Work Category Code 60411.

WORK CATEGORY CODE: **60416** - Comprehensive Master Plans

WORK CATEGORY DESCRIPTION: Preparation and Updating of Comprehensive Master Plans and Master Plan Supplementals.

Includes all costs to initiate new, or continue ongoing, comprehensive Master Plans, including all costs for salaries, supplies and materials, and equipment related to the preparation and updating of Master Plans and Master Plan Supplements. Charges may include field units that perform data collection and analysis.

WORK CATEGORY CODE: **60417** – Shoreline Management

WORK CATEGORY DESCRIPTION: Shoreline Management
Includes all costs associated with managing permits issued under authority of Title 36 CFR, the Shoreline management Program. Includes costs for salaries, contracts, supplies, materials and equipment.

WORK CATEGORY CODE: **60418** – Management of Special Status Species for Environmental Stewardship Function

WORK CATEGORY DESCRIPTION: Management of Special Status Species for Environmental Stewardship

Includes all environmental stewardship program function costs for management and operations to support special status species. Includes costs for salaries, contracts, supplies, materials, and equipment to manage the conservation and recovery of special status species such as Federally or state listed endangered, threatened, rare or sensitive species, including activities in areas under license, lease or outgrant. Includes activities to determine and document the state or condition of a resource or population (e.g. surveys, inventories); activities to increase understanding and appreciation of special status species such as interpretive programs, signs, surveillance activities, GPS/GIS mapping, marking populations boundaries and exclusion zones. Also includes costs to prepare or update Management Plans for Special Status Species, such as data collection and analysis, plan development, review and coordination.

WORK CATEGORY CODE: **60419** – Pest Management for Environmental Stewardship

WORK CATEGORY DESCRIPTION: Pest Management

Includes all costs for management and operations to support integrated pest management activities for

the health and sustainability of natural resources. Includes costs of salaries, contracts, supplies, materials, and equipment to control pests, control invasive exotic species, control noxious weeds and animals. Includes activities undertaken to determine the state or condition of a resource, or to determine population densities to assess the likelihood of resources damage by pests, and activities to increase understanding and appreciation of pest management activities.

WORK CATEGORY CODE: **60421** – Studies, Surveys and Inventories for the Environmental Stewardship Function

WORK CATEGORY DESCRIPTION: Natural Resources Studies, Surveys and Inventories for environmental stewardship features, including Fisheries and Wildlife Development Activities.

Includes all costs of fish and wildlife studies, including fish hauling and passage analyses to support long-range development and modification of existing structures, applicable to a specific project and pro rata share of basin-wide fish and wildlife studies; inventorying the natural resources base through Level One and Level Two Natural Resources Inventories; includes all costs to conduct surveys of fish and wildlife; and all costs to perform population dynamics and other studies.

WORK CATEGORY CODE: **60422** – Studies, Surveys and Inspections of Completed Works – Ecosystem Restoration

WORK CATEGORY DESCRIPTION: Studies, Surveys and Inspections of Ecosystem Restoration Features at Completed Projects Operated by Others.

Includes all costs related to the inspection of Federally constructed, locally operated and maintained projects to ensure compliance with Project Cooperative Agreements. Includes inspection of ecosystem restoration features, observations regarding compliance with any access or easement restrictions, and minimal documentation of the condition of the ecosystem. Includes all costs for technical review and approval of sponsor-proposed alterations, improvements, excavation or construction within the project boundaries; advice given to sponsors related to the effects of such activities on the function/operation of the project and information on acceptable construction methods; all costs to update O&M Manuals; initial funding of reconnaissance or evaluation reports; PED for deficiency correction and reconstruction as applicable until Construction (C) funds are allocated.

WORK CATEGORY CODE: **60430**

WORK CATEGORY DESCRIPTION: Reserved.

WORK CATEGORY CODE: **60441** - Water Management (Control and Quality) Activities for Environmental Stewardship - Analysis and Studies

WORK CATEGORY DESCRIPTION: Water Management (Control and Quality) Activities - Analysis, Studies and Regulation Instructions for environmental stewardship features.

Includes all water management activity costs related to the conservation, protection, or enhancement of environmental stewardship features, e.g. natural aquatic communities, wetlands, including associated costs for personnel and space to manage the hydrologic, hydraulic and meteorological data required for water control and quality activities in accordance with the current water control/quality plan. Also includes all costs for water management studies to improve efficiency or mitigate constraints on approved plans of regulation, annual updating of notification lists, and funds transferred to other agencies and any similar

items needed to accomplish this activity. This includes development of the water quality component of water control manuals and daily decisions on multi-level releases and pro-rata share of office and computer facilities and other related costs associated with water management. Included also are costs to calibrate and make operational the forecasting and decision support models within the new Corps Water Management System (CWMS). Costs for data collection are included in Work Category Code 60442.

WORK CATEGORY CODE: **60442** - Water Management (Control and Quality) Activities for Environmental Stewardship - Operation of Water Control Data Systems

WORK CATEGORY DESCRIPTION: Water Management (Control and Quality) Activities - Operation of Water Control Data Systems including Data Collection for environmental stewardship features.

Includes all costs for the operation of equipment, personnel and space to collect and process the hydrologic, hydraulic and meteorological data required for water control and quality activities in accordance with the current plan, data collection, and pro-rata share of office and computer facilities and other related costs associated with operations of water management data systems including the new Corps Water Management System (CWMS). Includes all costs to coordinate with other agencies and entities, training, travel, funds transferred to other agencies and other associated costs required for operation of water management data systems. Costs for purchase and maintenance of new water control data systems equipment are included in Work Category Code 61440.

WORK CATEGORY CODE: **60450** - Real Estate Management for the Environmental Stewardship Function

WORK CATEGORY DESCRIPTION: Real Estate Management including Compliance, and Utilization Inspections for environmental stewardship features.

Includes all costs, including contractual services, incident to granting to others the use of and performing inspections of property for environmental stewardship program purposes such as fish and wildlife habitat management, disposal of timber (NOTE: Do not include commodity (e.g. timber, crops, sand) sales costs that are expected to be funded by the proceeds from the sale of project commodities) and selected agricultural and grazing uses and reconveyance clauses (restrictions) in deeds. Includes report preparation, determination of compliance after vacation of property subsequent to expiration or revocation of grant, and corrective measures where non-compliance is noted. Also includes appraisals, surveys, mapping, negotiations, preparation and execution of outgrants, renewal, extension, cancellation/termination documents, responses to request for use of real or related personal property, as they relate to natural resources utilization or lands managed for natural resources. The general granting of land use to others and performing inspections of property granted and reserved to others for purposes such as road, street, waterline, powerline, and communication rights-of-way, as well as requests to drill for oil or gas on Government owned property where no oil or gas lease is required, and other uses covered by easements, licenses, and permits not supporting the environmental stewardship mission shall, in most instances, be charged to the grantee as administrative costs, including NEPA documentation costs In cases where it is in the public interest for the Corps to absorb the costs, those costs should be charged to the primary mission of the project such as flood damage reduction or navigation. Also includes the preparation of Report of Availability (ROAs); Environmental Baseline Surveys (EBSs); Finding of Suitability to Lease (FOSLs) or Finding of Suitability to Transfer (FOSTs) for real estate transactions when such action primarily concerns the stewardship of natural resources and fish and wildlife activities.

WORK CATEGORY CODE: **60460** - Environmental Compliance Management for the Environmental

Stewardship Function

WORK CATEGORY DESCRIPTION: Environmental Compliance Management for environmental stewardship features.

Includes all Environment Stewardship operational costs to comply with applicable Federal laws and regulations as they relate to the management of natural resources, including the National Environmental Policy Act (NEPA) Safe Drinking Water Act, Resource Conservation and Recovery Act (RCRA), Clean Air Act, Hazardous Materials Transportation Act, Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), EO 13148, and applicable state and local regulations. [Environment Stewardship program costs to comply with requirements of the Endangered Species Act (ESA) should be charged to WCC 60418.] Includes cost to complete portions of annual external or internal environmental compliance assessment that are related to natural features or lands managed for fish and wildlife in accordance with Federal, DOD and Corps of Engineers requirements as described in the ERGO/TEAM environmental assessment manuals. Environmental compliance and inspections associated with Recreation such as concession inspections, visitor center inspections, maintenance shops that service recreation areas, marina inspections shall be charged to 60560. Cost associated with compliance and inspections for facilities associated with dam operations, levee works, pump station or maintenance areas that serve these functions shall be charged to 60560. Costs associated with medical surveillance and other employee health and safety requirements are not included.

WORK CATEGORY CODE: **60470**

WORK CATEGORY DESCRIPTION: Reserved.

WORK CATEGORY CODE: **60480**

WORK CATEGORY DESCRIPTION: Reserved.

WORK CATEGORY CODE: **60491** – Facility Security Assessments for Environmental Stewardship

WORK CATEGORY DESCRIPTION: Facility Security – Assessments, reviews, studies and analyses for environmental stewardship features.

Includes all costs to conduct and prepare security risk assessments, reviews, evaluations, studies and analyses for facility security related to criminal and terrorist activities. Includes costs to evaluate threats, consequences and security system effectiveness for environmental stewardship features. Also includes costs to prepare or revise Emergency Action Plans and plans to address facility protection and security, training and appropriate coordination with other agencies as they relate to criminal and terrorist activities. Costs for guards and surveillance activities are included in Work Category Code 60492, and costs to acquire, install and maintain structural and physical improvements for security are included in Work Category Code 61490.

WORK CATEGORY CODE: **60492** – Facility Security Guards, Monitoring Activities for Environmental Stewardship

WORK CATEGORY DESCRIPTION: Facility Security – Guards and Monitoring Activities for environmental stewardship features.

Includes all costs for guards and security system monitoring activities including training of personnel for

facility security related to criminal and terrorist activities. Costs for assessments are included in Work Category Code 60491, and costs to acquire, install and maintain structural and physical improvements for security are included in Work Category Code 61490.

WORK CATEGORY CODE: **60511** - Operations for the Recreation Function

WORK CATEGORY DESCRIPTION: Operations and Management of Recreation Areas and Facilities, Service Facilities (Buildings, Grounds, Utilities, and Roads, Railroads and Bridges), Permanent Operating Equipment, etc. for recreation features.

Includes all costs for the management and operation; necessary materials, supplies, equipment, transportation and rental costs associated with operations; associated hired labor and contract support; routine materials and supplies; and other costs:

of recreation areas and facilities including all costs for salaries, per diem, travel, signs collecting and administering user fees, brochures, maps, participation in public and special events and exhibitions, costs of trash removal, cleanup, mowing, and gate or park attendants. Also includes operations costs for buildings, grounds, landscaping, removal of hazardous trees, control of vegetation, roads, bridges, parking areas, grills, tables, trails, playgrounds and permanent operating equipment utilized for recreation purposes;

to perform reservoir inspections and patrols for recreation purposes;

of project-owned permanent facilities for recreation purposes;

of all tools and permanent operating equipment including direct costs of automotive and other equipment assigned to the recreation function. Vehicle accounts will be maintained by group classifications as provided for Revolving Fund vehicles.

Costs previously included in 60512, Operations and Management for the Recreation Function using Special Recreation Users Fee (SRUF) Funds, should be included here.

Costs previously included here for Visitor Centers operations and management should now be included in Work Category Code 60514.

WORK CATEGORY CODE:
60513 - Operations for the Recreation Function - Law Enforcement Agreements

WORK CATEGORY DESCRIPTION: Operations for recreation features - Costs and Supervision of Law Enforcement Agreements.

Includes all costs for cooperative agreements for law enforcement with states and their political subdivisions under PL 94-587, and all costs for technical and administrative charges, including project and district costs for administration of law enforcement agreements and activities.

WORK CATEGORY CODE: **60514** – Operation/management of Visitor Centers

WORK CATEGORY DESCRIPTION: Operations and Management of Visitors Centers.
Includes all costs for the management and operation; necessary materials, supplies, equipment,

transportation and rental costs associated with operations; associated hired labor and contract support; routine materials and supplies; and other costs of visitor centers. Includes all costs associated with visitor center operations, such as all personnel costs, custodial duties, supporting costs of cooperating associations, snow, ice and debris removal, lawn and shrubbery maintenance, landscaping, utilities, exhibits, grounds, heating and cooling systems, audio visual programs, building material, and equipment costs. These costs were formerly included in WCC 60511

WORK CATEGORY CODE: **60520** - Studies and Surveys for the Recreation Function

WORK CATEGORY DESCRIPTION: Studies and Surveys for recreation features.

Includes all costs to prepare visitor surveys, reports or studies related to the operation, maintenance and rehabilitation of recreation facilities.

WORK CATEGORY CODE: **60530**

WORK CATEGORY DESCRIPTION: Reserved.

WORK CATEGORY CODE: **60541** - Water Management (Control and Quality) Activities for Recreation - Analysis and Studies

WORK CATEGORY DESCRIPTION: Water Management (Control and Quality) Activities - Analysis, Studies and Regulation Instructions for recreation features.

Includes all costs for personnel and space to manage the hydrologic, hydraulic and meteorological data required for water control and quality activities in accordance with the current water control/quality plan; all costs to prepare routine regulation instructions and runoff forecasts, coordinate with other agencies and entities, prepare water control manuals, disseminate water control information, training, travel and other associated costs required to make sound water control management decisions; all costs for reservoir and river analyses to improve the quality of water within and downstream from the reservoirs; and all costs related to studies of the means to mitigate water quality problems and studies to determine present and future water quality needs. Also includes all costs for water management studies to improve efficiency or mitigate constraints on approved plans of regulation, annual updating of notification lists, and funds transferred to other agencies and any similar items needed to accomplish this activity. This includes development of the water quality component of water control manuals and daily decisions on multi-level releases and pro-rata share of office and computer facilities and other related costs associated with water management. Included also are costs to calibrate and make operational the forecasting and decision support models within the new Corps Water Management System (CWMS). Costs for data collection are included in Work Category Code 60542.

WORK CATEGORY CODE: **60542** - Water Management (Control and Quality) Activities for Recreation - Operation of Water Control Data Systems

WORK CATEGORY DESCRIPTION: Water Management (Control and Quality) Activities - Operation of Water Control Data Systems including Data Collection for recreation features.

Includes all costs for the operation of equipment, personnel and space to collect and process the hydrologic, hydraulic and meteorological data required for water control and quality activities in accordance with the current plan, data collection, and pro-rata share of office and computer facilities and

other related costs associated with operations of water management data systems including the new Corps Water Management System (CWMS). Includes all costs to coordinate with other agencies and entities, training, travel, funds transferred to other agencies and other associated costs required for operation of water management data systems. Costs for purchase and maintenance of new water control data systems equipment are included in Work Category Code 61540.

WORK CATEGORY CODE: **60550** - Real Estate Management for the Recreation Function

WORK CATEGORY DESCRIPTION: Real Estate Management including Compliance, and Utilization Inspections for recreation features.

Includes all costs, including contractual services, incident to granting to others the use of and performing inspections of property used for recreational purposes such as commercial concessions, public park and recreation, quasi-public and group camps. Also includes granting use of and performing inspections of property granted and reserved to others for purposes such as road, street, waterline, power line, and communication rights-of-way and other uses covered by easement, licenses, and permits that impact the recreational features of a project. Includes report preparation, determination of compliance after vacation of property subsequent to expiration or revocation of grant, and corrective measures where non-compliance is noted. Also includes appraisals, surveys, mapping, negotiations, preparation and execution of outgrant's, renewal, extension, cancellation/termination documents, responses to request for use of real or related personal property, Executive Order surveys and public land withdrawals (applies to the 11 western states) on lands that support the recreational features of a project. Includes costs of utilization inspections of real property used for recreation under the control of or subject to a service agreement with the Corps of the Government and real property accountability, including real property inventory updates and preparation of annual civil-owned property reports (GSA 1166) for lands that support the recreation program of a project.

WORK CATEGORY CODE: **60550** - Real Estate Management for the Recreation Function

WORK CATEGORY DESCRIPTION: Real Estate Management including Compliance, and Utilization Inspections for recreation features.

Includes all costs, including contractual services, incident to granting to others the use of and performing inspections of property for purposes such as commercial concessions, industrial uses, public park and recreation, quasi-public and group camp use, fish and wildlife habitat management, selected agricultural and grazing uses and reconveyance clauses (restrictions) in deeds. Also includes granting use of and performing inspections of property granted and reserved to others for purposes such as road, street, waterline, powerline, and communication rights-of-way, as well as requests to drill for oil or gas on Government owned property where no oil or gas lease is required,
and other uses covered by easements, licenses, and permits. Includes report preparation, determination of compliance after vacation of property subsequent to expiration or revocation of grant, and corrective measures where non-compliance is noted. Also includes appraisals, surveys, mapping, negotiations, preparation and execution of outgrants, renewal, extension, cancellation/termination documents, responses to request for use of real or related personal property, Executive Order surveys and public land withdrawals (applies to the 11 western states). Includes costs of utilization inspections of real property under the control of or subject to a service agreement with the Corps or the Government and real property accountability, including real property inventory updates and preparation of annual civil-owned property reports (GSA 1166).

WORK CATEGORY CODE: **60560** - Environmental Compliance Management for the Recreation Function

WORK CATEGORY DESCRIPTION: Environmental Compliance Management for recreation features.

WORK CATEGORY DESCRIPTION: Environmental Compliance Management for Recreation features. Includes all Recreational operational costs to comply with applicable Federal laws and regulations, including the Safe Drinking Water Act, Resource Conservation and Recovery Act (RCRA), Clean Air Act, Hazardous Materials Transportation Act, Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), EO 13148, and applicable state and local regulations for recreation facilities and visitor centers. Includes cost to complete annual environmental compliance assessment, external and internal as inspections and findings related to recreational activities and in accordance with Federal, DOD and Corps of Engineers requirements are described in the ERGO/TEAM environmental assessment manuals. Includes all costs associated with management and oversight of environmental compliance for recreation operations activities such as maintenance shops that support recreation, inspection of outgrants and concessions such as marinas, personnel training and management plans in spill prevention, hazard communication, pollution prevention, hazardous material, water resources, storage and handling of oil and pesticide management that support recreational activities. Includes costs associated with implementing and maintaining an Environmental Management System (EMS) for the recreational activities and support facilities (may be cost shared with other functions). Costs include salaries, training, materials, supplies, regulatory fees, drinking water and waste analysis, inspection of waste collection and disposal facilities, and internal and external environmental compliance assessments. Costs associated with medical surveillance and other employee health and safety requirements are not included.

WORK CATEGORY CODE: **60570**

WORK CATEGORY DESCRIPTION: Reserved.

WORK CATEGORY CODE: **60580**

WORK CATEGORY DESCRIPTION: Reserved.

WORK CATEGORY CODE: **60591** – Facility Security Assessments for Recreation

WORK CATEGORY DESCRIPTION: Facility Security – Assessments, reviews, studies and analyses for recreation features.

Includes all costs to conduct and prepare security risk assessments, reviews, evaluations, studies and analyses for facility security related to criminal and terrorist activities. Includes costs to evaluate threats, consequences and security system effectiveness for recreation features. Also includes costs to prepare or revise Emergency Action Plans and plans to address facility protection and security, training and appropriate coordination with other agencies as they relate to criminal and terrorist activities. Costs for guards and surveillance activities are included in Work Category Code 60592, and costs to acquire, install and maintain structural and physical improvements for security are included in Work Category Code 61590.

WORK CATEGORY CODE: **60592** – Facility Security Guards, Monitoring Activities for Recreation

WORK CATEGORY DESCRIPTION: Facility Security – Guards and Monitoring Activities for recreation features.

Includes all costs for guards and security system monitoring activities including training of personnel for facility security related to criminal and terrorist activities. Costs for assessments are included in Work Category Code 60591, and costs to acquire, install and maintain structural and physical improvements for security are included in Work Category Code 61590.

WORK CATEGORY CODE: **60610** - Joint Activities for Operations, FERC #535, #537, #538 and #539

WORK CATEGORY DESCRIPTION: Joint costs for Operations activities NOT specific to Navigation, Flood Damage Reduction, Hydropower, Environmental Stewardship, Recreation and Water Supply. These activities may include the operation of Dams, Reservoirs, Levees, Other Non-Dam Multi-purpose Structures, Pumping Plants, Service Facilities (Buildings, Grounds, Utilities, and Roads, Railroads and Bridges), gates, conduits, Permanent Operating Equipment, etc.

Includes all joint costs for the operation routine materials, supplies, equipment and transportation costs; hired labor and contract support associated with operations; and other costs:

of dam structures and appurtenant equipment such as spillway gates, intake and outlet works, and sluiceways for reservoir regulation; removing and disposing of ice, snow, trash, and debris on or in the vicinity of the dam or dam structures; cleanup of dam structures and facilities; routine testing and adjustment of gauges, meters, instruments, and relays in dam structures; disposal and control of weeds, brush, trees, and aquatic growth in the vicinity of dam structures; and grass cutting on earth-fill dams. Includes costs for dam safety/failure training of project personnel, preparation of flood emergency plans, dam contingency plans, dam surveillance plans, and provision for technical assistance to local interests concerning dam failure. When this account includes municipal or industrial water delivery activities, a separate sub-element should be established in CEFMS to record appropriate costs for each such facility for cost allocation purposes;

to perform reservoir inspections and patrols, removal and control of trash and debris (excluding major periodic or one-time removal of growth and debris from the reservoir which should be included in maintenance accounts); minor bank erosion control; minor cleaning of reservoir area for weeds, brush, trees, and aquatic growth; boundary surveillance and routine, recurring maintenance of boundary monumentation at projects without natural resource activities, insect control and elimination of health and safety hazards;

of levees and other non-dam multi-purpose structures; vegetation control, removal of snow and ice from multi-purpose structures;

of pumping plants, pumps and associated equipment; collecting and maintaining operational records; routine replacement, purification and testing of insulating, lubricating and hydraulic oils; lubricants and lubricating equipment; minor maintenance of electrical equipment, cleaning, testing, and adjustment of motor starters, relays, meters, and similar equipment; minor maintenance of pumps, motors, engines, trash raking equipment, gate hoists, gates, fire fighting, and other equipment required for operation; minor maintenance of buildings, roads, and grounds; removal of debris, ice, and snow;

of project-owned permanent facilities such as administration and shop buildings, storage and garage buildings and areas, community buildings, local streets and sidewalks, landscaping, utility facilities such as electric, gas, water, and sewage, all security and protective measures, and permanent roads, including the road across the top of the dam, and parking areas near the dam,

railroads, and bridges required for access and other purposes in connection with the operation of a project. It also includes bridges provided as a project feature for the passage of highway and railway traffic over improved channels. Direct costs included are snow and ice removal from project roads, parking areas and walkways; sanding and salting project roads, parking areas and walkways; minor patching, signs, ditch cleaning, culvert cleaning and similar duties; bridge operation; cleanup of project roads, railroads, and bridges. Where space in other basic structures, such as a dam or powerhouse, is used in lieu of any above mentioned facilities, such allocated space is not separated from the basic structure. Buildings which house operating machinery and serve other purposes as well are included in this activity, but the costs to operate the machinery is charged to the appropriate Work Categories. Buildings which house specific operating machinery, spare parts, equipment, etc., will be charged to the appropriate Work Categories of all tools and equipment, including laboratory, shop, warehousing, communications, surveys, and transportation equipment, office furniture and equipment. Project owned sedimentation and degradation measuring facilities, rainfall and stream-gauging devices, fixed sand bypassing systems, and like equipment are also included. Includes direct costs of automotive and other equipment not assigned to specific features. Vehicle accounts will be maintained by group classifications as provided for Revolving Fund vehicles. Operating costs of permanent equipment assigned to specific functions will be charged to those functions.

WORK CATEGORY CODE: **60621** - Joint Activities for Studies and Surveys, FERC #535, #537, #538 and #539

WORK CATEGORY DESCRIPTION: Joint costs for Studies and Surveys including project condition surveys, dredging studies, etc. NOT specific to Navigation, Flood Damage Reduction, Hydropower, Environmental Stewardship, Recreation and Water Supply.

Includes all joint costs to perform studies or surveys for multi-purpose projects including sedimentation conditions and dredging studies.

WORK CATEGORY CODE: **60622** - Joint Activities for Studies and Surveys - Major Rehabilitation Evaluation Reports, FERC #537

WORK CATEGORY DESCRIPTION: Joint costs for Studies and Surveys - Major Rehabilitation Evaluation Reports NOT specific to Navigation, Flood Damage Reduction, Hydropower, Environmental Stewardship, Recreation and Water Supply.

Includes all joint costs for major rehabilitation evaluation reports. Operation and Maintenance (O&M) funds are to be used only until Construction (C) funds are allocated to the project.

WORK CATEGORY CODE: **60631** - Joint Activities for Instrumentation, Data Collection and Analysis for Dam Safety, FERC #537

WORK CATEGORY DESCRIPTION: Joint costs of Instrumentation for Engineering Analysis and Continuing Evaluation Data Gathering Inspections, and Data Analysis for Dam Safety NOT specific to Navigation, Flood Damage Reduction, Hydropower, Environmental Stewardship, Recreation and Water Supply.

Includes all joint costs for the operation of instruments in existing dam structures for safety evaluation and all costs of obtaining, analyzing and reporting instrumentation data for purposes consistent with an approved plan. This includes instrumentation for measuring horizontal and vertical movement, stresses and strains, pore pressure, phreatic surfaces, seismic effects, and seepage clarity and quality.

WORK CATEGORY CODE: **60632** - Joint Activities for Formal Periodic Inspections and Reports for Dam Safety, FERC #537

WORK CATEGORY DESCRIPTION: Joint costs for Formal Periodic Inspections and Reports for Dam Safety NOT specific to Navigation, Flood Damage Reduction, Hydropower, Environmental Stewardship, Recreation and Water Supply.

Includes all joint costs related to the scheduled periodic inspections and reporting of projects and bridges needed to meet inspection frequency requirements of ER 1110-2-100 as follows:

(a) Dams, locks and dams, initial and second inspections if funded under O&M General, and high hazard structures.

(b) Public Bridges.

(c) Structures whose failure would be a major loss to the national infrastructure or cause severe economic distress.

(d) Other projects where known conditions warrant inspections at a frequency more often than normal.

WORK CATEGORY CODE: **60633** - Joint Activities for Dam Safety Assurance Studies, FERC #537

WORK CATEGORY DESCRIPTION: Joint costs for Dam Safety Assurance Studies NOT specific to Navigation, Flood Damage Reduction, Hydropower, Environmental Stewardship, Recreation and Water Supply.

Includes all joint costs of reconnaissance studies and special engineering investigations for known or suspected dam safety deficiencies, e.g. seismic evaluations, seepage studies, erosion studies, etc.

WORK CATEGORY CODE: **60641** - Joint Activities for Water Management (Control and Quality) - Analysis and Studies, FERC #537

WORK CATEGORY DESCRIPTION: Joint costs for Water Management (Control and Quality) Activities - Analysis, Studies and Regulation Instructions NOT specific to Navigation, Flood Damage Reduction, Hydropower, Environmental Stewardship, Recreation and Water Supply.

Includes all joint costs for personnel and space to manage the hydrologic, hydraulic and meteorological data required for water control and quality activities in accordance with the current water control/quality plan; costs to prepare routine regulation instructions and runoff forecasts, coordinate with other agencies and entities, prepare water control manuals, disseminate water control information, training, travel and other associated costs required to make sound water control management decisions; costs for reservoir and river analyses to improve the quality of water within and downstream from the reservoirs; and costs related to studies of the means to mitigate water quality problems and studies to determine present and future water quality needs. Also includes costs for water management studies to improve efficiency or mitigate constraints on approved plans of regulation, annual updating of notification lists, and funds transferred to other agencies and any similar items needed to accomplish this activity. This includes development of the water quality component of water control manuals and daily decisions on multi-level releases and pro-rata share of office and computer facilities and other related costs associated with water management . Included also are costs to calibrate and make operational the forecasting and decision support models within the new Corps Water Management System (CWMS). Joint costs for data

collection are included in Work Category Code 60642.

WORK CATEGORY CODE: **60642** - Joint Activities for Water Management (Control and Quality) - Operation of Water Control Data Systems, FERC #537

WORK CATEGORY DESCRIPTION: Joint costs for Water Management (Control and Quality) Activities - Operation of Water Control Data Systems NOT specific to Navigation, Flood Damage Reduction, Hydropower, Environmental Stewardship, Recreation and Water Supply.

Includes all joint costs for the operation of equipment, personnel and space to collect and process the hydrologic, hydraulic and meteorological data required for water control and quality activities in accordance with the current plan, data collection, and pro-rata share of office and computer facilities and other related costs associated with operations of water management data systems including the new Corps Water Management System (CWMS). Includes costs to coordinate with other agencies and entities, training, travel, funds transferred to other agencies and other associated costs required for operation of water management data systems. Costs for purchase and maintenance of new water control data systems equipment are included in Work Category Code 61640.

WORK CATEGORY CODE: **60650** - Joint Activities for Real Estate Management, FERC #539

WORK CATEGORY DESCRIPTION: Joint costs for Real Estate Management including Compliance, and Utilization Inspections NOT specific to Navigation, Flood Damage Reduction, Hydropower, Environmental Stewardship, Recreation and Water Supply.

Includes all joint costs, including contractual services, incident to granting to others the use of and performing inspections of property for purposes such as commercial concessions, industrial uses, public park and recreation, quasi-public and group camp use, fish and wildlife habitat management, selected agricultural and grazing uses and reconveyance clauses (restrictions) in deeds. Also includes granting use of and performing inspections of property granted and reserved to others for purposes such as road, street, waterline, powerline, and communication rights-of-way, as well as requests to drill for oil or gas on Government owned property where no oil or gas lease is required, and other uses covered by easements, licenses, and permits. Includes report preparation, determination of compliance after vacation of property subsequent to expiration or revocation of grant, and corrective measures where non-compliance is noted. Also includes appraisals, surveys, mapping, negotiations, preparation and execution of outgrants, renewal, extension, cancellation/termination documents, responses to request for use of real or related personal property, Executive Order surveys and public land withdrawals (applies to the 11 western states). Includes costs of utilization inspections of real property under the control of or subject to a service agreement with the Corps or the Government. Includes reconciliation of financial records with flood damage reduction land and mineral lease receipts, and real property accountability, including real property inventory updates and preparation of annual civil-owned property reports (GSA 1166).

WORK CATEGORY CODE: **60660** - Joint Activities for Environmental Compliance Management, FERC #539

WORK CATEGORY DESCRIPTION: Joint costs for Environmental Compliance Management activities NOT specific to Navigation, Flood Damage Reduction, Hydropower, Environmental Stewardship, Recreation and Water Supply.

Includes all joint operational costs to comply with applicable Federal laws and regulations, including the Safe Drinking Water Act, Resource Conservation and Recovery Act (RCRA), Clean Air Act, Hazardous

Materials Transportation Act, Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), EO 13148, and applicable state and local regulations. Includes cost to complete annual environmental compliance assessment, external or internal. Federal, DOD and Corps of Engineers requirements are described in the ERGO/TEAM environmental assessment manuals. Includes all costs associated with management and oversight of environmental compliance for operations activities. Includes costs associated with implementing and maintaining an Environmental Management System (EMS). Costs include salaries, training, materials, supplies, regulatory fees, drinking water and waste analysis, inspection of waste collection and disposal facilities, and internal and external environmental compliance assessments. Costs associated with medical surveillance and other employee health and safety requirements are not included.

WORK CATEGORY CODE: **60670**

WORK CATEGORY DESCRIPTION: Reserved.

WORK CATEGORY CODE: **60680**

WORK CATEGORY DESCRIPTION: Reserved.

WORK CATEGORY CODE: **60691** – Joint Activities for Facility Security Assessments

WORK CATEGORY DESCRIPTION: Joint Costs for Facility Security – Assessments, reviews, studies and analyses NOT specific to Navigation, Flood Damage Reduction, Hydropower, Environmental Stewardship, Recreation and Water Supply.

Includes all joint costs to conduct and prepare security risk assessments, reviews, evaluations, studies and analyses for facility security related to criminal and terrorist activities. Includes costs to evaluate threats, consequences and security system effectiveness. Also includes costs to prepare or revise Emergency Action Plans and plans to address facility protection and security, training and appropriate coordination with other agencies as they relate to criminal and terrorist activities. Joint costs for guards and surveillance activities are included in Work Category Code 60692, and joint costs to acquire, install and maintain structural and physical improvements for security are included in Work Category Code 61690.

WORK CATEGORY CODE: **60692** – Joint Activities for Facility Security Guards, Monitoring Activities

WORK CATEGORY DESCRIPTION: Joint Costs for Facility Security – Guards and Monitoring Activities NOT specific to Navigation, Flood Damage Reduction, Hydropower, Environmental Stewardship, Recreation and Water Supply.

Includes all joint costs for guards and security system monitoring activities including training of personnel for facility security related to criminal and terrorist activities. Joint costs for assessments are included in Work Category Code 60691, and joint costs to acquire, install and maintain structural and physical improvements for security are included in Work Category Code 61690.

WORK CATEGORY CODE: **60711** - National Emergency Preparedness Program (NEPP) - Continuity of Operations

WORK CATEGORY DESCRIPTION: National Emergency Preparedness Program (NEPP) - Continuity of Operations activities.

Includes all costs required to develop, maintain and exercise Continuity of Operations Plans (COOP). Includes personnel and contracting costs for development of plans and Standard Operating Procedures (SOPs), training, participation in exercises and program management associated with USACE relocation and reconstitution missions as a result of either a natural or manmade (caused) disaster or emergency.

WORK CATEGORY CODE: **60712** - National Emergency Preparedness Program (NEPP) - National Preparedness Planning

WORK CATEGORY DESCRIPTION: National Emergency Preparedness Program (NEPP) - National Preparedness Planning activities.

Includes all costs associated with, or in support of, deliberate planning for assigned catastrophic disaster response plans which ensure that Corps MSCs and districts can support the Nation during national emergency events. Includes personnel and contracting costs for deliberate planning, development of Standard Operating Procedures (SOPs), training, exercises, program management and coordination with related Federal, State, and local entities. Also includes costs associated with preparedness planning for Port Readiness and Military Assistance to Civil Disturbances.

WORK CATEGORY CODE: **60713** - National Emergency Preparedness Program (NEPP) - Support of Emergency Operations Centers (EOCs)

WORK CATEGORY DESCRIPTION: National Emergency Preparedness Program (NEPP) - Support of Emergency Operations Centers (EOCs)

WORK CATEGORY CODE: **60714** - National Emergency Preparedness Program (NEPP) - Emergency Water Program

WORK CATEGORY DESCRIPTION: National Emergency Preparedness Program (NEPP) - Emergency Water Program.

Includes all personnel and contracting costs for those activities required to execute E.O. 12656 related to the Emergency Water Program. (For HQUSACE use only.)

WORK CATEGORY CODE: **60715** - National Emergency Preparedness Program (NEPP) - Continuity of Government

WORK CATEGORY DESCRIPTION: National Emergency Preparedness Program (NEPP) - Continuity of Government.

Includes all personnel and contracting costs for those activities associated with Continuity of Government, including plans to support the Federal Emergency Management Agency (FEMA) and other Federal, State and local agencies in their efforts to reestablish civil authority lost as a result of natural or manmade (caused) disaster or an attack on the United States. (For HQUSACE use only as directed.)

WORK CATEGORY CODE: **60716** - National Emergency Preparedness Program (NEPP) - Training and Exercises

WORK CATEGORY DESCRIPTION: National Emergency Preparedness Program (NEPP) - Training and Exercises.

Includes all costs for the development of and the participation in catastrophic disaster training and

exercises in the inter- and intra-agency arena.

WORK CATEGORY CODE: **60811** - Operations for Water Supply

WORK CATEGORY DESCRIPTION: Operations of Project Gates, Specific Water Supply Conduits, Permanent Operating Equipment, etc. for water supply features.

Includes all costs for the operation; necessary materials, supplies, equipment and transportation costs associated with operations; associated hired labor and contract support; routine materials and supplies; and other costs: of project gates, specific water supply conduits and permanent operating equipment specifically for water supply. Prior to FY 07, these costs have been included in WCC 60210.

WORK CATEGORY CODE: **60812** - Water Supply Agreements

WORK CATEGORY DESCRIPTION: Development and Renegotiation of Water Supply Agreements.

Includes all labor and associated costs involved in the development of new water supply agreements and for costs required for existing water supply agreements such as billings and collections including delinquencies, lawsuits and modifications and renegotiations of such agreements. Prior to FY 07, these costs have been included in WCC 60210.

WORK CATEGORY CODE: **60820** - Studies and Surveys for the Water Supply Function

WORK CATEGORY DESCRIPTION: Studies and Surveys for water supply features.

Includes all costs to prepare new or continuing reports associated with the reallocation of an existing project purpose to water supply. Prior to FY 07, these costs have been included in WCC 60221.

Section C-4.3d
Work Category Codes and Definitions
O&M Maintenance Accounts By Business Line:

Navigation (**611**--)
Flood Damage Reduction (**612**--)
Hydropower (**613**--)
Environmental Stewardship (**614**--)
Recreation (**615**--)
Joint Activities (**616**--)
Reserved **(617**--)
Water Supply **(618**--)

A Breakdown of Work Category Codes (WCCs) and descriptions under these functions is on the following pages:

WORK CATEGORY CODE:
61110 - Maintenance for the Navigation Function

WORK CATEGORY DESCRIPTION: Maintenance of Locks, Dams, Reservoirs, Dikes, Revetments, Breakwaters, Jetties, Seawalls, Piers, Levees and Similar Structures, Service Facilities, Permanent Operating Equipment, etc. excluding dredging activities for navigation features.

Includes all direct costs for the maintenance and repair, replacement, additions and efficiency improvements to, or retirement of; related costs for spare parts, replacements, additions, special tools, miscellaneous supplies and materials; government plant and hired labor for project maintenance and contract support, transportation costs and other costs required to perform this maintenance function; purchase of permanent operating equipment for non-Water Management activities:

of lock and salt water control structures and facilities for passage of waterborne traffic, including gates, valve operating machinery, lock walls, and guide and guard-walls including dolphins within the lock approaches for tie up, guard, or guide purposes;

of facilities and equipment for dams, spillways, outlet works and auxiliary dams;

of reservoirs and facilities including floating trash booms, trash racks, erosion control, drainage, major periodic or one time removal of debris or aquatic growth to ensure proper functioning of the reservoir (minor and routine removal of growth and debris in the vicinity of dam structures and from reservoirs should be charged to Work Category Code 60110); rim grouting or mine sealing, etc., to prevent leakage;

of revetments, dikes, groins, breakwaters, jetties, seawalls, piers, levees and similar structures provided in seas, lakes, rivers, canals, exposed tidal waters, and harbors;

of non-dredging navigation channel maintenance including snagging, clearing, aquatic plant removal, removal of sunken vessels, drift removal, rock and other debris removal;

of buildings, grounds, utilities, and roads, railroads and bridges, such as administration and shop

buildings, storage and garage buildings and areas, other non-leased or rented project buildings, local streets and sidewalks, project access roads, including the road across dams, parking areas, bridges, railroads, and walkways. Also includes direct costs for project utilities including electrical, gas, water, and sewer systems;

of permanent operating equipment;

of buildings, grounds and utilities that are part of the hydraulic models in South Pacific Division;

and for instrumentation on lock facilities and dam structures including all costs for the installation and maintenance of instruments in existing structures for safety evaluation purposes consistent with an approved plan. This includes instrumentation for measuring horizontal and vertical movement, stresses and strains, pore pressure, phreatic surfaces, seismic effects, and seepage clarity and quality.

WORK CATEGORY CODE: **61121** - Dredging Activities for the Navigation Function

WORK CATEGORY DESCRIPTION: Dredging of Channels and Canals for navigation activities including all disposal activities. Disposal activities include, but are not limited to, confined, open water, beach, wetland creation, aquatic habitat creation, etc.

Includes all costs for maintenance dredging and disposal activities of navigation channels and canals, except project condition sediment survey costs which are included in Work Category Code 60121. Includes costs for before, during and after dredging surveys, required real estate activities, E&D, S&A, etc. Also included are costs to obtain environmental clearances to perform the associated dredging. Costs for long-range environmental requirements are included in Work Category Code 60123. This Work Category also includes all costs associated with the disposal of dredged materials in confined disposal facilities; open water; sand on beaches; creation or restoration of wetlands or other aquatic habitat using dredged material; creation of land using dredged material. Also includes related costs for spare parts, special tools, miscellaneous materials and supplies, transportation, disposal, and equipment.

NOTE: Line item submissions for Corps-owned hopper dredges should be separate from line item submissions for any other dredges.

WORK CATEGORY CODE: **61122** - Dredging - Construction and Maintenance of Dredged Material Disposal Facilities for the Navigation Function

WORK CATEGORY DESCRIPTION: Construction and Maintenance of Disposal Facilities for Dredged Materials for navigation features.

Includes all costs for the construction and the maintenance of dredged material disposal facilities including confined disposal facilities, and costs for required real estate activities. Also includes related costs for spare parts, replacements, special tools, miscellaneous materials and supplies, transportation, and equipment usage. T**his does not include cost to prepare Dredge Material Management Plans (DMMP). DMMP costs hould be allocated to WCC 60123**

WORK CATEGORY CODE: **61130** – Dam Safety Remediation of Deficiencies for the Navigation Function

WORK CATEGORY DESCRIPTION: Remediation of Safety Deficiencies for Dams, Levees and Other Structures as appropriate for navigation features.

Includes all direct costs for the non-routine repair, replacement and corrections to all dams included in the National Inventory of Dams plus any levees, diversion structures and related appurtenances maintained at Federal expense to remediate dam safety deficiencies. Includes related costs for contracts, parts, replacements, special tools, supplies and materials, government plant, hired labor to include contract support, transportation costs and other costs required to perform this work. Specifically, this includes non-routine maintenance and/or repair work for dams and pertinent structures and levees that have either been identified by any means as having a Dam Safety Deficiency or has been concurred to be deficient by the District Commander, his appointed Dam Safety Officer or District Dam Safety Program Manager. Dam Safety maintenance or repair work may be identified by any means such as a study, criteria review, or any scheduled or unscheduled inspection. Dam safety related work such as inspections, inspection reports, rehabilitation reports, studies, surveys, and instrumentation will be categorized under the existing Work Category Codes in accordance with current practice. Only the actual work to include the associated plans and specifications (P&S), engineering and design (E&D) for the repairs or remedial corrections will be included in this Work Category Code as appropriate. For those business programs that do not specifically have a Work Category Code for Dam Safety (61130, 61230 and 61330) yet may encounter dam safety related work, the costs should be included in the primary business program for that project. In previous years these costs were included in WCC 61110. Costs are only included in this Work Category Code if they meet the above definition for Dam Safety. Costs for regular, recurring maintenance activities will not be included in this WCC.

WORK CATEGORY CODE: **61140** - Water Management (Control and Quality) Equipment for the Navigation Function

WORK CATEGORY DESCRIPTION: Purchase and Maintenance of Water Management (Control and Quality) Equipment for navigation features.

Includes all costs for the purchase of new or replacement hardware, software, and equipment (upgrades, betterments, or expansion) and the maintenance of existing equipment used to acquire, process, display, and distribute data associated with project water management and regulation (water control and quality). This includes only those costs related to equipment justified in approved Division water management Master plans. Purchase of multi-project equipment will be included in the Revolving Fund (PRIP). This includes PRIP payback for equipment purchase, software development, and system betterment for the new Corps Water Management System (CWMS). This also includes costs for maintenance and support of CWMS.

WORK CATEGORY CODE: **61151** - Real Estate - Land Acquisition and Disposal Management Activities, Settlement of Claims, and Audits for the Navigation Function

WORK CATEGORY DESCRIPTIONS: Real Estate - Land Acquisition and Disposal Management Activities, Settlement of Claims, and Audits for navigation features.

Includes all costs for planning, appraisal, negotiation, condemnation, relocation assistance, mapping, surveying, title evidence, inspections, closings, audits and temporary permits necessary to acquire or dispose of lands and interests. Also includes real estate payments for acquisition of real property and interests therein. Costs to take necessary actions to settle claims, including damage payments arising from claims over the use and occupancy of land, real property and timber in which fee, easements, or lesser interests were not acquired. Includes all administrative costs incurred in connection with timber disposal in support of forest management activities, such as contract administration, and inspection, but excludes the staff supervision of timber management, which is included in Work Category Code 60411.

WORK CATEGORY CODE: **61152** - Real Estate - Resolution of Real Estate Encroachments for the

Navigation Function

WORK CATEGORY DESCRIPTIONS: Real Estate - Resolution of Real Estate Encroachments for navigation features.

Includes all costs for the resolution of all encroachments on project lands, and degradation of public lands and encroachments adversely affecting the intended uses of potentially high use areas; including investigation, acquisition, disposal, and out-granting. The costs for boundary line surveys and remarking are included in Work Category Code 61153.

WORK CATEGORY CODE: **61153** - Real Estate - Boundary Monumentation and Rectification for the Navigation Function

WORK CATEGORY DESCRIPTIONS: Real Estate - Boundary Monumentation and Rectification for navigation features.

Includes all costs to survey and mark boundary lines in support of acquisition; to resurvey or remark boundary lines and place monuments in support of Executive Order actions and disposal actions, and costs to survey and mark boundary lines where not previously completed. Under normal circumstances there will be no work items in the Baseline funding level for this Work Category.

WORK CATEGORY CODE: **61160** - Environmental Compliance (Remedial Actions) for the Navigation Function

WORK CATEGORY DESCRIPTION: Environmental Compliance (remedial actions) for Locks, Dams, Reservoirs, Breakwaters, Jetties, Seawalls, Piers, Levees, Other Control Structures, Pumping Plants, Other Facilities, Channels and Canals for navigation features.

Includes all maintenance, repair and remediation costs to comply with applicable Federal environmental laws and regulations, including the Safe Drinking Water Act, Resource Conservation and Recovery Act (RCRA), Clean Air Act, Hazardous Materials Transportation Act, the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), EO 13148, and applicable state and local regulations for locks, dams, reservoirs, breakwaters, jetties, seawalls, piers, levees, other control structures, pumping plants, other facilities, channels and canals. Includes cost for corrective actions related to environmental compliance assessment findings related to the Navigation function. Costs include salaries, contaminant detection, waste analysis, site investigations, site remediation, treatment system installation, repair, renovation, modification, and other costs associated with compliance. Costs associated with medical surveillance and other employee health and safety requirements are not included.

WORK CATEGORY CODE: **61170** - O&M Major Rehabilitation Projects for the Navigation Function

WORK CATEGORY DESCRIPTION: Remaining O&M Funded Major Rehabilitation projects for navigation features.

Includes all major rehabilitation costs such as repair, replacement, additions and efficiency improvements to lock structures and facilities for passage of waterborne traffic, and all costs for facilities and equipment for dams, spillways, outlet works and auxiliary dams including gates, valve operating machinery, lock walls, and guide and guard-walls including dolphins within the lock approaches for tie up, guard, or guide purposes.

NOTE: Major rehabilitation, deficiency correction, and reconstruction projects are programmed for initial Construction (C) appropriation and Inland Waterways Trust Fund moneys, as appropriate, only after applicable reconnaissance and/or evaluation reports have been approved. Work items for Major Rehabilitation Evaluation Reports are included in Work Category Code 60122. This Work Category will be used only until O&M funded Major Rehabilitation projects are completed.

WORK CATEGORY CODE: **61180**

WORK CATEGORY DESCRIPTION: Reserved.

WORK CATEGORY CODE: **61191** – Facility Security Maintenance and Replacement for Navigation

WORK CATEGORY DESCRIPTION: Facility Security – Maintenance and Replacement for navigation features.

Includes all costs to maintain and replace structural improvements for facility protection and security related to criminal and terrorist activities. Includes costs to maintain, repair or replace permanent or temporary barriers, fencing, traffic signs, lighting, communications equipment, intrusion detection systems such as video surveillance equipment and cameras, and access control. Costs for assessments are included in Work Category Code (WCC) 60191, and costs for guards and surveillance activities are included in WCC 60192. Costs for improvements and modifications are included in WCC 61192. Includes some costs formerly included in WCC 61190.

WORK CATEGORY CODE: **61192** – Facility Security Physical Improvements and Modifications for Navigation

WORK CATEGORY DESCRIPTION: Facility Security – Physical Improvements and Modifications for navigation features.

Includes all costs for engineering and design, and to acquire and install structural improvements, modifications and physical improvements for facility protection and security related to criminal and terrorist activities. Includes costs for permanent or temporary barriers, fencing, traffic signs, lighting, communications equipment, intrusion detection systems such as video surveillance equipment and cameras, and access control. Includes some costs formerly included in WCC 61190.

WORK CATEGORY CODE: **61211** - Maintenance for the Flood Damage Reduction Function

WORK CATEGORY DESCRIPTION: Maintenance of Dams, Reservoirs, Levees, Floodwalls, Hurricane Barriers, and Other Flood Damage Reduction Structures; Snagging, Clearing, Aquatic Plant Removal, Rock and Other Debris Removal, and Other Non-Dredging Flood Damage Reduction Channel Maintenance; Pumping Plants, Other Service Facilities (Buildings, Grounds, Utilities, and Roads, Railroads and Bridges), Maintenance and Purchase of Permanent Operating Equipment for Non-Water Control Management Activities; etc. excluding dredging for flood damage reduction features.

Includes all direct costs for the maintenance and repair, replacement, additions and efficiency improvements to, or retirement of; related costs for spare parts, replacements, additions, special tools, miscellaneous supplies and materials; government plant and hired labor for project maintenance and contract support, transportation costs and other costs required to perform this maintenance function; purchase of permanent operating equipment for non-Water Management activities:

of facilities and equipment for dams, spillways, outlet works and auxiliary dams;

of reservoirs and facilities including floating trash booms, trash racks, erosion control, drainage, major periodic or one-time removal of debris or aquatic growth to ensure proper functioning of the reservoir (minor and routine removal of growth and debris in the vicinity of dam structures and from reservoirs should be charged to Work Category Code 60210); and rim grouting or mine sealing, etc., to prevent leakage;

of levees, floodwalls, hurricane barriers, embankments, walls, in-channel structures, and other flood damage reduction structures to protect areas from inundation; and snagging, clearing, debris removal, and non-dredging flood damage reduction channel maintenance. This includes direct costs for removal of trees, brush, accumulated snags, drifts, and debris from canals and waterways for flood damage reduction and major drainage purposes; and channel improvement structures and revetments, linings, dikes, jetties, bulkheads, and buildings (when provided for flood damage reduction);

of pumping plants including such items as buildings, pumps, and prime movers including power supplies, controls, piping, and all other associated facilities;

of buildings, grounds, utilities, and roads, railroads and bridges, such as administration and shop buildings, storage and garage buildings and areas, other non-leased or rented project buildings, local streets and sidewalks, project access roads, including the road across dams, parking areas, bridges, railroads, and walkways. Also includes direct costs for project utilities including electrical, gas, water, and sewer systems;
of permanent operating equipment;

and for instrumentation on dam structures and levees, floodwalls, hurricane barriers, and other flood damage reduction structures including all costs for the installation and maintenance of instruments in existing structures for safety evaluation purposes consistent with an approved plan. This includes instrumentation for measuring horizontal and vertical movement, stresses and strains, pore pressure, phreatic surfaces, seismic effects, and seepage clarity and quality.

Costs for Water Supply activities formerly charged to this Work Category Code should now be charged to Work Category Code 61810.

WORK CATEGORY CODE: **61212** - Maintenance of Dikes, Revetments, Breakwaters and Similar Structures for Mississippi River and Tributaries (MR&T) Flood Damage Reduction

WORK CATEGORY DESCRIPTION: Maintenance of Dikes, Revetments, Groins, Breakwaters, Jetties, Seawalls and Similar Structures for MR&T flood damage reduction purposes.

Includes all costs for the maintenance and repair, replacement, additions and efficiency improvements to, or retirement of revetments, dikes, groins, breakwaters, seawalls, piers, linings, training dikes, bulkheads and similar structures. Also includes related costs for spare parts, replacements, additions, special tools, miscellaneous materials and supplies, transportation costs, equipment usage, associated government plant and hired labor for project maintenance, contract support, and other costs.

WORK CATEGORY CODE: **61221** - Dredging Activities for the Flood Damage Reduction Function

WORK CATEGORY DESCRIPTION: Dredging of Channels and Canals for flood damage reduction activities including all disposal activities. Disposal activities include, but are not limited to, confined, open water, beach, wetland creation, aquatic habitat creation, etc.

Includes all costs for dredging, excavation and disposal activities for the maintenance and efficiency improvements of channels and canals for flood damage reduction purposes, except project condition sediment survey costs which are included in Work Category Code 60221. Includes the costs for before, during and after dredging surveys, required real estate activities, E&D, S&A, etc. Also included are costs to obtain environmental clearances to perform the associated dredging. This Work Category also includes all costs associated with the disposal of dredged materials in confined disposal facilities; open water; sand on beaches; creation or restoration of wetlands or other aquatic habitat using dredged material; and creation of land using dredged material. Also includes related costs for spare parts, special tools, miscellaneous materials and supplies, transportation, disposal, and equipment.

WORK CATEGORY CODE: **61222** - Dredging - Construction and Maintenance of Disposal Facilities for the Flood Damage Reduction Function

WORK CATEGORY DESCRIPTION: Construction and Maintenance of Disposal Facilities for Dredged Materials for flood damage reduction features.

Includes all costs for the construction and the maintenance of dredged material disposal facilities including confined disposal facilities, and required real estate activities. Also includes related costs for spare parts, replacements, special tools, miscellaneous materials and supplies, transportation and equipment usage.

WORK CATEGORY CODE: **61230** - Dam Safety Remediation of Deficiencies for the Flood Damage Reduction Function

WORK CATEGORY DESCRIPTION: Remediation of Safety Deficiencies for Dams, Levees and Other Structures as appropriate for navigation features.

Includes all direct costs for the non-routine repair, replacement and corrections to all dams included in the National Inventory of Dams plus any levees, diversion structures and related appurtenances maintained at Federal expense to remediate dam safety deficiencies. Includes related costs for contracts, parts, replacements, special tools, supplies and materials, government plant, hired labor to include contract support, transportation costs and other costs required to perform this work. Specifically, this includes non-routine maintenance and/or repair work for dams and pertinent structures and levees that have either been identified by any means as having a Dam Safety Deficiency or has been concurred to be deficient by the District Commander, his appointed Dam Safety Officer or District Dam Safety Program Manager. Dam Safety maintenance or repair work may be identified by any means such as a study, criteria review, or any scheduled or unscheduled inspection. Dam safety related work such as inspections, inspection reports, rehabilitation reports, studies, surveys, and instrumentation will be categorized under the existing Work Category Codes in accordance with current practice. Only the actual work to include the associated plans and specifications (P&S), engineering and design (E&D) for the repairs or remedial corrections will be included in this Work Category Code as appropriate. For those business programs that do not specifically have a Work Category Code for Dam Safety (61130, 61230 and 61330) yet may encounter dam safety related work, the costs should be included in the primary business program for that project. In previous years these costs were included in WCC 61110. Costs are only included in this Work Category Code if they meet the above definition for Dam Safety. Costs for regular, recurring maintenance activities will not be included in this WCC.

WORK CATEGORY CODE: **61240** - Water Management (Control and Quality) Equipment for the Flood Damage Reduction Function

WORK CATEGORY DESCRIPTION: Purchase and Maintenance of Water Management (Control and Quality) Equipment for flood damage reduction features.

Includes all costs for the purchase of new or replacement hardware, software, and equipment (upgrades, betterments, or expansion) and the maintenance of existing equipment used to acquire, process, display, and distribute data associated with project water management and regulation (water control and quality). This includes only those costs related to equipment justified in approved Division water management Master plans Purchase of multi-project equipment will be included in the Revolving Fund (PRIP). This includes PRIP payback for equipment purchase, software development, and system betterment for the new Corps Water Management System (CWMS). This also includes costs for maintenance and support of CWMS.

WORK CATEGORY CODE: **61251** - Real Estate - Land Acquisition and Disposal Management Activities, Settlement of Claims, and Audits for the Flood Damage Reduction Function

WORK CATEGORY DESCRIPTIONS: Real Estate - Land Acquisition and Disposal Management Activities, Settlement of Claims, and Audits for flood damage reduction features.

Includes all costs for planning, appraisal, negotiation, condemnation, relocation assistance, mapping, surveying, title evidence, inspections, closings, audits and temporary permits necessary to acquire or dispose of lands and interests. Also includes real estate payments for acquisition of real property and interests therein. Costs to take necessary actions to settle claims, including damage payments arising from claims over the use and occupancy of land, real property and timber in which fee, easements, or lesser interests were not acquired. Includes all administrative costs incurred in connection with timber disposal in support of forest management activities, such as contract administration, and inspection, but excludes the staff supervision of timber management, which is included in Work Category Code 60411.

WORK CATEGORY CODE: **61252** - Real Estate - Resolution of Real Estate Encroachments for the Flood Damage Reduction Function

WORK CATEGORY DESCRIPTIONS: Real Estate - Resolution of Real Estate Encroachments for flood damage reduction features.

Includes all costs for the resolution of all encroachments on project lands, and degradation of public lands and encroachments adversely affecting the intended uses of potentially high use areas; including investigation, acquisition, disposal, and out-granting. Costs for boundary line surveys and remarking are included in Work Category Code 61253.

WORK CATEGORY CODE: **61253** - Real Estate - Boundary Monumentation and Rectification for the Flood Damage Reduction Function

WORK CATEGORY DESCRIPTIONS: Real Estate - Boundary Monumentation and Rectification for flood damage reduction features.

Includes all costs to survey and mark boundary lines in support of acquisition; to resurvey or remark boundary lines and place monuments in support of Executive Order actions and disposal actions, and

costs to survey and mark boundary lines where not previously completed. Under normal circumstances there will be no work items in the Baseline funding level for this Work Category.

WORK CATEGORY CODE: **61260** - Environmental Compliance (Remedial Actions) for the Flood Damage Reduction Function

WORK CATEGORY DESCRIPTION: Environmental Compliance (remedial actions) for Dams, Breakwaters, Jetties, Seawalls, Levees, Floodwalls, Hurricane Barriers, Other Flood Damage Reduction Structures, Pumping Plants, Other Facilities, Channels and Canals for flood damage reduction features.

Includes all maintenance, repair and remediation costs to comply with applicable Federal environmental laws and regulations, including the Safe Drinking Water Act, Resource Conservation and Recovery Act (RCRA), Clean Air Act, Hazardous Materials Transportation Act, the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), EO 13148, and applicable state and local regulations for dams, breakwaters, jetties, seawalls, levees, floodwalls, hurricane barriers, other flood damage reduction structures, pumping plants, other facilities, channels and canals. Includes cost for corrective actions related to environmental compliance assessment findings related to flood damage reduction activities. Costs include salaries of environmental compliance coordinators and administration, contaminant detection, waste analysis, site investigations, site remediation of recent and past releases or contamination resulting from Flood Damage Reduction activities; treatment system installation, repair or renovation, erosion protection of structures or pool, responding to spills from FDR facilities, disposal of unclaimed barrels or containers, and responding or clean-up of pesticide or chemical releases that flood damage reduction activities on Corps or outgranted lands. Costs associated with medical surveillance and other employee health and safety requirements are not included.

WORK CATEGORY CODE: **61270**

WORK CATEGORY DESCRIPTION: Reserved.

WORK CATEGORY CODE: **61280**

WORK CATEGORY DESCRIPTION: Reserved.

WORK CATEGORY CODE: **61291** – Facility Security Maintenance and Replacement for Flood Damage Reduction

WORK CATEGORY DESCRIPTION: Facility Security – Maintenance and Replacement for flood damage reduction features.

Includes all costs to maintain and replace structural improvements for facility protection and security related to criminal and terrorist activities. Includes costs to maintain, repair or replace permanent or temporary barriers, fencing, traffic signs, lighting, communications equipment, intrusion detection systems such as video surveillance equipment and cameras, and access control. Costs for assessments are included in Work Category Code (WCC) 60291, and costs for guards and surveillance activities are included in WCC 60292. Costs for improvements and modifications are included in WCC 61292. Includes some costs formerly included in WCC 61290.

WORK CATEGORY CODE: **61292** – Facility Security Physical Improvements and Modifications for Flood Damage Reduction

WORK CATEGORY DESCRIPTION: Facility Security – Physical Improvements and Modifications for flood damage reduction features.

Includes all costs for engineering and design, and to acquire and install structural improvements, modifications and physical improvements for facility protection and security related to criminal and terrorist activities. Includes costs for permanent or temporary barriers, fencing, traffic signs, lighting, communications equipment, intrusion detection systems such as video surveillance equipment and cameras, and access control. Includes some costs formerly included in WCC 61290.

WORK CATEGORY CODE: **61310 (61311-61314)** Maintenance for the Hydropower Function Costs for this function will be sub-divided as follows:

61311 Maintenance Supervision, FERC #541. Costs for labor, materials and expenses incurred in the general supervision of maintenance of hydraulic power generating stations. Direct supervision of specific jobs is charged to the appropriate maintenance feature;

61312 Maintenance of Hydraulic Structures, FERC #542. Costs for labor, materials and expenses incurred in the maintenance, repair, replacement, additions and efficiency improvements to, and retirement of the powerhouse, and power intake works whether or not the powerhouse is an integral part of the intake dam;

61313 Maintenance of Electric Plant, FERC #544. Costs for labor, materials and expenses incurred in the maintenance, repair, replacement, additions and efficiency improvements to, and retirement of the power plant generating and accessory electrical and mechanical equipment, and switchyard electrical and mechanical equipment;

61314 - Maintenance of Miscellaneous Hydraulic Plant, FERC #545. Costs for labor, materials and expenses incurred in the maintenance, repair, replacement, additions and efficiency improvements to, and retirement of the power plant and switchyard hydraulic plant.

WORK CATEGORY DESCRIPTION: Maintenance of Power Plants, excluding dredging for hydropower features.

Includes all costs for power plant maintenance and repair, replacements, additions and efficiency improvements to, and retirement of all power plant structures; of facilities and equipment required for production, transmission, and distribution of electrical power, including but not limited to the power plant, spillway, low flow bypass systems, storage facilities, turbines, motors, pumps, generators, and governors; of all accessory electrical or electronic equipment and control systems; of all water, air, and oil systems; of all intake structures with electrical and mechanical equipment; of the tailrace, switchyard, transformer yard, elevators, trash racks; and of lighting and interior power distribution systems, cable tunnels and conduit runs; and installation of instrumentation. Includes spare parts, special and regular tools, supplies and equipment, scaffolding, and rental of specialized equipment. Includes labor and materials, and incidental expenses incurred to maintain maintenance records; expenses incurred by the power plant management and support staff in the general supervision of the maintenance of the hydraulic generating station; and transportation and per diem costs required to perform power plant maintenance functions. Dredging is included in Work Category Code 61320.

WORK CATEGORY CODE: **61320** - Dredging Activities for the Hydropower Function, FERC #543

WORK CATEGORY DESCRIPTION: Dredging for hydropower activities including all disposal activities.

Includes all costs for maintenance dredging and disposal activities, except project condition sediment survey costs which are included in Work Category Code 60321. It also includes the costs for before, during and after dredging surveys, required real estate activities, E&D, S&A, etc. Also included are costs to obtain environmental clearances to perform the associated dredging. This Work Category also includes related costs for spare parts, special tools, miscellaneous materials and supplies, transportation, disposal, and equipment.

WORK CATEGORY CODE: **61330** – Dam Safety Remediation of Deficiencies for the Hydropower Function

WORK CATEGORY DESCRIPTION: Remediation of Safety Deficiencies for Dams, Levees and Other Structures as appropriate for hydropower features.

Includes all direct costs for the non-routine repair, replacement and corrections to all dams included in the National Inventory of Dams plus any levees, diversion structures and related appurtenances maintained at Federal expense to remediate dam safety deficiencies. Includes related costs for contracts, parts, replacements, special tools, supplies and materials, government plant, hired labor to include contract support, transportation costs and other costs required to perform this work. Specifically, this includes non-routine maintenance and/or repair work for dams and pertinent structures and levees that have either been identified by any means as having a Dam Safety Deficiency or has been concurred to be deficient by the District Commander, his appointed Dam Safety Officer or District Dam Safety Program Manager. Dam Safety maintenance or repair work may be identified by any means such as a study, criteria review, or any scheduled or unscheduled inspection. Dam safety related work such as inspections, inspection reports, rehabilitation reports, studies, surveys, and instrumentation will be categorized under the existing Work Category Codes in accordance with current practice. Only the actual work to include the associated plans and specifications (P&S), engineering and design (E&D) for the repairs or remedial corrections will be included in this Work Category Code as appropriate. For those business programs that do not specifically have a Work Category Code for Dam Safety (61130, 61230 and 61330) yet may encounter dam safety related work, the costs should be included in the primary business program for that project. In previous years these costs were included in WCCs 61311-61314. Costs are only included in this Work Category Code if they meet the above definition for Dam Safety. Costs for regular, recurring maintenance activities will not be included in this WCC.

WORK CATEGORY CODE: **61340** - Water Management (Control and Quality) Equipment for the Hydropower Function, FERC #542

WORK CATEGORY DESCRIPTION: Purchase and Maintenance of Water Management (Control and Quality) Equipment for hydropower features.

Includes all costs for the purchase of new or replacement hardware, software, and equipment (upgrades, betterments, or expansion) and the maintenance of existing equipment used to acquire, process, display, and distribute data associated with project water management and regulation (water control and quality). This includes only those costs related to equipment justified in approved Division water management Master plans. Purchase of multi-project equipment will be included in the Revolving Fund (PRIP). This includes PRIP payback for equipment purchase, software development, and system betterment for the new Corps Water Management System (CWMS). This also includes costs for maintenance and support of CWMS.

WORK CATEGORY CODE: **61351** - Real Estate - Land Acquisition and Disposal Management Activities, Settlement of Claims, and Audits for the Hydropower Function, FERC #545

WORK CATEGORY DESCRIPTION: Real Estate - Land Acquisition and Disposal Management Activities, Settlement of Claims, and Audits for hydropower features.

Includes all costs for planning, appraisal, negotiation, condemnation, relocation assistance, mapping, surveying, title evidence, inspections, closings, audits and temporary permits necessary to acquire or dispose of lands and interests. Also includes real estate payments for acquisition of real property and interests therein. Costs to take necessary actions to settle claims, including damage payments arising from claims over the use and occupancy of land, real property and timber in which fee, easements, or lesser interests were not acquired. Includes all administrative costs incurred in connection with timber disposal in support of forest management activities, such as contract administration, and inspection, but excludes the staff supervision of timber management, which is included in Work Category Code 60411.

WORK CATEGORY CODE: **61352** - Real Estate - Resolution of Real Estate Encroachments for the Hydropower Function, FERC #545

WORK CATEGORY DESCRIPTION: Real Estate - Resolution of Real Estate Encroachments for hydropower features.

Includes all costs for the resolution of all encroachments on project lands, and degradation of public lands and encroachments adversely affecting the intended uses of potentially high use areas; including investigation, acquisition, disposal, and out-granting. The costs for boundary line surveys and remarking are not included in this Work Category.

WORK CATEGORY CODE: **61353** - Real Estate - Boundary Monumentation and Rectification for the Hydropower Function, FERC #545

WORK CATEGORY DESCRIPTION: Real Estate - Boundary Monumentation and Rectification for hydropower features.
Includes all costs to survey and mark boundary lines in support of acquisition; to resurvey or remark boundary lines and place monuments in support of Executive Order actions and disposal actions, and costs to survey and mark boundary lines where not previously completed. Under normal circumstances there will be no work items in the Baseline funding level for this Work Category.

WORK CATEGORY CODE: **61360** - Environmental Compliance (Remedial Actions) for the Hydropower Function, FERC #545

WORK CATEGORY DESCRIPTION: Environmental Compliance (remedial actions) for Dams, Levees, Other Control Structures, Power Plants, Pumping Plants, and Other Facilities for hydropower features.

Includes all maintenance, repair and remediation costs to comply with applicable Federal environmental laws and regulations, including the Safe Drinking Water Act, Resource Conservation and Recovery Act (RCRA), Clean Air Act, Hazardous Materials Transportation Act, the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), and applicable state and local regulations for dams, levees, other control structures, power plants, pumping plants, and other facilities. Costs include salaries, contaminant detection, waste analysis, site investigations, site remediation, treatment system installation, repair, renovation, modification, and other costs associated with compliance. Costs associated with medical surveillance and other employee health and safety requirements are not included. Includes cost for corrective actions related to environmental compliance assessment findings related to the Hydropower function

WORK CATEGORY CODE: **61370 (61371-61374**) - O&M Major Rehabilitation Projects for the Hydropower Function Costs for this function will be further subdivided as follows:

61371 - Comprehensive Replacement Supervision, FERC #541. Costs for labor, materials and expenses incurred in the supervision of the comprehensive replacement of hydraulic power generating stations. Direct supervision of specific jobs is charged to the appropriate maintenance feature;

61372 - Comprehensive Replacement of Structures, FERC #542. Costs for labor, materials and expenses incurred in the comprehensive replacement of the powerhouse, switchyard, and power intake works whether or not the powerhouse is an integral part of the intake dam;

61373 - Comprehensive Replacement of Electric Plant, FERC #544. Costs for labor, materials and expenses incurred in the comprehensive replacement of the power plant generating and accessory electrical and mechanical equipment, and switchyard electrical and mechanical equipment;

61374 - Comprehensive Replacement of Miscellaneous Hydraulic Plant, FERC # 545. Costs for labor, materials and expenses incurred in the comprehensive replacement of the power plant and switchyard hydraulic plant.

WORK CATEGORY DESCRIPTION: Remaining O&M Funded Major Rehabilitation (Comprehensive Replacement) projects for hydropower features.

Includes all costs for comprehensive major rehabilitation, replacement, repair, additions and efficiency improvements, including supervision, of all power plant structures, electric plant, miscellaneous hydraulic plant, power plant intake works; of facilities and equipment required for production, transmission, and distribution of electrical power, including but not limited to the power plant, spillway, low flow bypass systems, storage facilities, turbines, motors, pumps, generators, and governors; of all accessory electrical or electronic equipment and control systems; of all water, air, and oil systems; of all intake structures with electrical and mechanical equipment; of the tailrace, switchyard, transformer yard, elevators, trash racks; and of lighting and interior power distribution systems, cable tunnels and conduit runs. Includes labor and materials, special and regular tools, supplies and equipment, scaffolding, and rental of specialized equipment. See Work Category Codes 61310 (61311-61314) and 613N0 (613N1-613N4).

NOTE: Major Rehabilitation work is now funded under the Construction (C) appropriation. Work items for Major Rehabilitation Evaluation Reports are included in Work Category Code 60325. This Work Category will be used only until current O&M funded Major Rehabilitation projects are completed.

WORK CATEGORY CODE: **61380**

WORK CATEGORY DESCRIPTION: Reserved.

WORK CATEGORY CODE: **61391** – Facility Security Maintenance and Replacement for Hydropower

WORK CATEGORY DESCRIPTION: Facility Security – Maintenance and Replacement for hydropower features.

Includes all costs to maintain and replace structural improvements for facility protection and security

related to criminal and terrorist activities. Includes costs to maintain, repair or replace permanent or temporary barriers, fencing, traffic signs, lighting, communications equipment, intrusion detection systems such as video surveillance equipment and cameras, and access control. Costs for assessments are included in Work Category Code (WCC) 60391, and costs for guards and surveillance activities are included in WCC 60392. Costs for improvements and modifications are included in WCC 61392. Includes some costs formerly included in WCC 61390.

WORK CATEGORY CODE: **61392** – Facility Security Physical Improvements and Modifications for Hydropower

WORK CATEGORY DESCRIPTION: Facility Security – Physical Improvements and Modifications for hydropower features.

Includes all costs for engineering and design, and to acquire and install structural improvements, modifications and physical improvements for facility protection and security related to criminal and terrorist activities. Includes costs for permanent or temporary barriers, fencing, traffic signs, lighting, communications equipment, intrusion detection systems such as video surveillance equipment and cameras, and access control. Includes some costs formerly included in WCC 61390.

WORK CATEGORY CODE: **61411** - Maintenance of Natural Resource Facilities for Environmental Stewardship function

WORK CATEGORY DESCRIPTION: Maintenance of Natural Resource Facilities.

Includes all costs to perform maintenance needed to foster healthy and sustainable lands and waters, and to conserve and protect natural resources and associated facilities located on project lands. This Work Category only includes costs during the conservation or protection effort.

WORK CATEGORY CODE: **61412** - Mitigation of Archeological and Cultural Resources

WORK CATEGORY DESCRIPTION: Mitigation of Archeological and Cultural Resources such as Sites, Structures, and Objects.

Includes all costs to manage, curate, maintain and rehabilitate identified archeological collections and associated documentation and long term collections management. Also includes cultural resources mitigation costs to protect, recover, preserve or otherwise mitigate significant archaeological, historical, and cultural buildings, sites, structures or objects. This Work Category only includes costs during the recovery, preservation, or mitigation effort.

WORK CATEGORY CODE: **61413** - Maintenance of Natural Resources Mitigation Features for Environmental Stewardship

WORK CATEGORY DESCRIPTION: Maintenance of Natural Resources Mitigation Features for Environmental Stewardship.

Includes all costs for the maintenance and repair of natural resources mitigation features to comply with mitigation requirements specified in Federal law, Congressional legislation, or in HQ approved project authorization decision document,. to offset unavoidable natural resources and ecological losses caused by the construction of a project or by project operation activities. This Work Category only includes costs during the mitigation effort.

WORK CATEGORY CODE: **61414** - Maintenance of Fisheries, Fish Haulage Activities and Fish Passage Structures

WORK CATEGORY DESCRIPTION: Maintenance of Fisheries, Fish Haulage Activities and Fish Passage Structures for environmental stewardship features.

Includes all costs for maintenance and repair of fish hatcheries, egg collection stations, transportation equipment, and fish passage facilities.

WORK CATEGORY CODE: **61418** – Maintenance of Special Status Species for Environmental Stewardship Function

WORK CATEGORY DESCRIPTION: Maintenance of Special Status Species for environmental stewardship features.

Includes all costs for maintenance of resources and features supporting special status species. Includes costs of salaries, contracts, equipment, supplies and materials to protect and maintain species of special concern such as Federal or state listed endangered, threatened, rare or sensitive species, including activities in areas under license, lease, or outgrant. Includes activities undertaken to maintain a resource, population, habitat or management feature, such as vegetation manipulation, timber management, prescribed burning, and activities to protect populations and individual specimens (e.g. citation authority program, surveillance activities, identifying and monitoring exclusion zones). The cost of special status species maintenance that is a function of activities of another business line, e.g. navigation, shall be funded by that business line as a cost of doing business, using work category codes associated with the appropriate business line.

WORK CATEGORY CODE: **61421** - Dredging Activities for the Environmental Stewardship Function

WORK CATEGORY DESCRIPTION: Dredging of Channels and Canals for environmental stewardship activities including all disposal activities. Disposal activities include, but are not limited to, confined, open water, beach, wetland creation, aquatic habitat creation, etc.

Includes all costs for maintenance dredging of project channels and canals, and disposal activities, except project condition sediment survey costs which are included in Work Category Code 60420. It also includes the costs for before, during and after dredging surveys, required real estate activities, E&D, S&A, etc. Also included are costs to obtain environmental clearances to perform the associated dredging. This Work Category also includes all costs associated with the disposal of dredged materials in confined disposal facilities; open water; sand on beaches; creation or restoration of wetlands or other aquatic habitat using dredged material; and creation of land using dredged material. Also includes related costs for spare parts, special tools, miscellaneous materials and supplies, transportation, disposal, and equipment.

WORK CATEGORY CODE: **61422** - Dredging - Construction and Maintenance of Disposal Facilities for the Environmental Stewardship Function

WORK CATEGORY DESCRIPTION: Construction and Maintenance of Disposal Facilities for Dredged Materials for environmental stewardship features.

Includes all costs for the construction and the maintenance of disposal facilities including confined disposal facilities, and required real estate activities. Also includes related costs for spare parts,

replacements, special tools, miscellaneous materials and supplies, transportation and equipment usage.

WORK CATEGORY CODE: **61430**

WORK CATEGORY DESCRIPTION: Reserved.

WORK CATEGORY CODE: **61440** - Water Management (Control and Quality) Equipment for the Environmental Stewardship Function

WORK CATEGORY DESCRIPTION: Purchase and Maintenance of Water Management (Control and Quality) Equipment for environmental stewardship features.

Includes all costs for the purchase of new or replacement hardware, software, and equipment (upgrades, betterments, or expansion) and the maintenance of existing equipment used to acquire, process, display, and distribute data associated with project water management and regulation (water control and quality). This includes only those costs related to equipment justified in approved Division water management Master plans Purchase of multi-project equipment will be included in the Revolving Fund (PRIP). This includes PRIP payback for equipment purchase, software development, and system betterment for the new Corps Water Management System (CWMS). This also includes costs for maintenance and support of CWMS.

WORK CATEGORY CODE: **61451** - Real Estate - Land Acquisition and Disposal Management Activities, Settlement of Claims, and Audits for the Environmental Stewardship Function

WORK CATEGORY DESCRIPTION: Real Estate - Land Acquisition and Disposal Management Activities, Settlement of Claims, and Audits for environmental stewardship features.

Includes all costs for planning, appraisal, negotiation, condemnation, relocation assistance, mapping, surveying, title evidence, inspections, closings, audits and temporary permits necessary to acquire or dispose of lands and interests. Also includes real estate payments for acquisition of real property and interests therein. Costs to take necessary actions to settle claims, including damage payments arising from claims over the use and occupancy of land, real property and timber in which fee, easements, or lesser interests were not acquired. (NOTE: Includes administrative costs incurred in connection with timber disposal in support of forest management activities, such as contract administration, and inspection. <u>However, do not include those commodity (e.g. timber, crops, sand) sales costs that are expected to be funded by the proceeds from the sale of project commodities.</u> Staff supervision of timber management should be included in Work Category Code 60411).

WORK CATEGORY CODE: **61452** - Real Estate - Resolution of Real Estate Encroachments for the Environmental Stewardship Function

WORK CATEGORY DESCRIPTION: Real Estate - Resolution of Real Estate Encroachments for environmental stewardship features.

Includes all costs for the resolution of all encroachments on project lands, and degradation of public lands and encroachments adversely affecting the intended uses of potentially high use areas; including investigation, acquisition, disposal, and out-granting. Costs for boundary line surveys and remarking are

included in Work Category Code 61453.

WORK CATEGORY CODE: **61453** - Real Estate - Boundary Monumentation and Rectification for the Environmental Stewardship Function

WORK CATEGORY DESCRIPTION: Real Estate - Boundary Monumentation and Rectification for environmental stewardship features.

Includes all costs to survey and mark boundary lines in support of acquisition; to resurvey or remark boundary lines and place monuments in support of Executive Order actions and disposal actions, and costs to survey and mark boundary lines where not previously completed. Under normal circumstances there will be no work items in the Baseline funding level for this Work Category.

WORK CATEGORY CODE: **61460** - Environmental Compliance (Remedial Actions) for the Environmental Stewardship Function

WORK CATEGORY DESCRIPTION: Environmental Compliance (remedial actions) of Natural Resources including Other Service Facilities for environmental stewardship features.

Includes all maintenance, repair and remediation costs to comply with applicable Federal laws and regulations, including the Safe Drinking Water Act, Resource Conservation and Recovery Act (RCRA), Clean Air Act, Hazardous Materials Transportation Act, the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), EO 13148, and applicable state and local regulations for natural resources and other environmental stewardship features. Costs include salaries, contaminant detection, waste analysis, site investigations, site remediation, treatment system installation, repair, renovation, modification, and other costs associated with compliance. Costs associated with medical surveillance and other employee health and safety requirements are not included.

WORK CATEGORY CODE: **61470**

WORK CATEGORY DESCRIPTION: Reserved.

WORK CATEGORY CODE: **61480**

WORK CATEGORY DESCRIPTION: Reserved.

WORK CATEGORY CODE: **61491** – Facility Security Maintenance and Replacement for Environmental Stewardship

WORK CATEGORY DESCRIPTION: Facility Security – Maintenance and Replacement for environmental stewardship features.
Includes all costs to maintain and replace structural improvements for facility protection and security related to criminal and terrorist activities. Includes costs to maintain, repair or replace permanent or temporary barriers, fencing, traffic signs, lighting, communications equipment, intrusion detection systems such as video surveillance equipment and cameras, and access control. Costs for assessments are included in Work Category Code (WCC) 60491, and costs for guards and surveillance activities are included in WCC 60492. Costs for improvements and modifications are included in WCC 61492. Includes some costs formerly included in WCC 61490.

WORK CATEGORY CODE: **61492** – Facility Security Physical Improvements and Modifications for Environmental Stewardship

WORK CATEGORY DESCRIPTION: Facility Security – Physical Improvements and Modifications for environmental stewardship features.

Includes all costs for engineering and design, and to acquire and install structural improvements, modifications and physical improvements for facility protection and security related to criminal and terrorist activities. Includes costs for permanent or temporary barriers, fencing, traffic signs, lighting, communications equipment, intrusion detection systems such as video surveillance equipment and cameras, and access control. Includes some costs formerly included in WCC 61490.

WORK CATEGORY CODE: **61511** - Maintenance of Recreation Features

WORK CATEGORY DESCRIPTION: Maintenance of Recreation areas and Facilities, Service Facilities – (Buildings, Grounds, Utilities, Roads and Bridges), Erosion Control in Recreation Areas, and Maintenance and Purchase of Permanent Operating Equipment for recreation features.

Includes all costs for the maintenance and repair, replacement, additions and efficiency improvements to, or retirement of, recreation facilities and structures such as grills, tables, playgrounds, trails, campgrounds, picnic areas, restrooms, showers, boat ramps, parking areas, roads, grounds, utilities associated with recreation use, buildings used for recreation purposes or the collection of fees and other structures used to support the recreation function. Also included are the costs for realignment, overlay, grading, and widening, of roads, parking areas, bridges and walkways associated with recreational development, and all costs for control of erosion endangering recreational areas or facilities, including seeding, sodding, riprap, gabions, vegetation, retaining walls and other measures. Also includes the costs for permanent operating equipment such as backhoe, trencher, bucket truck, tractor loader, vehicles, communications equipment, and computers used to support the recreation function of the project. This Work Category also includes costs for spare parts, replacements, additions, special tools, miscellaneous materials and supplies, transportation costs and equipment usage, and costs to bring facilities up to modern design standards and to provide accessibility for persons with disabilities as required. Includes costs for new recreation facilities, if the goal of providing quality public recreation experiences with the most cost efficient management of water resources development projects can be met.

This Work Category Code includes costs previously included in Work Category Code 61512, Maintenance of Recreation Facilities using SRUF funds (see paragraph C-2.15 SRUF).

SRUF costs previously included under Work Category Code 61512 should now be included under Work Category Code 61511.

WORK CATEGORY CODE: **61513** - Maintenance of Recreation Features - Cost Shared Recreation Developments

WORK CATEGORY DESCRIPTION: Cost Shared Recreation Developments - Contracts and Negotiations.

Includes all recreation cost share agreements and contract costs; costs to reimburse local sponsors; and costs for monitoring and negotiating agreements related to cost sharing.

WORK CATEGORY CODE: **61514** – Maintenance of Visitor Centers

WORK CATEGORY DESCRIPTION: Maintenance of Visitor Centers for recreation features.

Includes all costs for the maintenance and repair, replacement, additions and efficiency improvements to, or retirement of, visitor center buildings, displays, audiovisual systems, heating and cooling systems, landscaping, grounds, exhibits and utilities. Also includes costs for spare parts, replacements, additions, special tools, miscellaneous materials and supplies, transportation costs and equipment usage. These costs were formerly included in WCC 61511.

WORK CATEGORY CODE: **61515** – Modernization of Recreation Features

WORK CATEGORY DESCRIPTION: Modernization of recreation features.

Includes all costs for the modernization, replacement or additions for modernization to recreation facilities and structures such as trails, campgrounds, picnic areas, restrooms, showers, boat ramps, parking areas, roads, grounds, utilities associated with recreation use, buildings used for recreation purposes or the collection of fees and other structures used to support the recreation function. Also includes costs for spare parts, replacements, additions, special tools, miscellaneous materials and supplies, transportation costs and equipment usage, and costs to bring facilities up to modern design standards and to provide accessibility for persons with disabilities as required. Also, includes costs for E&D and P&S for the Recreation Modernization Program. Work should be included in this Work Category Code (WCC) rather than WCC 61511 if the primary reason for the work is to update existing facilities to meet current guidelines and user needs, as well as modifying facilities and services to improve efficiency and effectiveness. If the primary reason to do work is non-operational maintenance, it should be included in WCC 61511, even if some modernization will be accomplished in conjunction with the work. These costs were formerly included in WCC 61511.

WORK CATEGORY CODE: **61520** - Dredging Activities for the Recreation Function

WORK CATEGORY DESCRIPTION: Dredging for recreation activities including all disposal activities.

Includes all costs for maintenance dredging and disposal activities for the recreation function, except project condition sediment survey costs which are included in Work Category Code 60520. It also includes the costs for before, during and after dredging surveys, required real estate activities, E&D, S&A, etc. Also included are costs to obtain environmental clearances to perform the associated dredging. Also includes all costs associated with the disposal of dredged materials as sand on beaches, and related costs for spare parts, special tools, miscellaneous materials and supplies, transportation, disposal, and equipment.

WORK CATEGORY CODE: **61530**

WORK CATEGORY DESCRIPTION: Reserved.

WORK CATEGORY CODE: **61540** - Water Management (Control and Quality) Equipment for the Recreation Function

WORK CATEGORY DESCRIPTION: Purchase and Maintenance of Water Management (Control and Quality) Equipment for recreation features.

Includes all costs for the purchase of new or replacement hardware, software, and equipment (upgrades, betterments or expansion) and the maintenance of existing equipment used to acquire, process, display,

and distribute data associated with project water management and regulation (water control and quality) for the recreation function. This includes only those costs related to equipment justified in approved Division water management Master plans. Purchase of multi-project equipment will be included in the Revolving Fund (PRIP). This includes PRIP payback for equipment purchase, software development, and system betterment for the Corps new Water Management System (SWMS). This also includes costs for maintenance and support of CWMS.

WORK CATEGORY CODE: **61551** - Real Estate - Land Acquisition and Disposal Management Activities, Settlement of Claims, and Audits for the Recreation Function

WORK CATEGORY DESCRIPTION: Real Estate - Land Acquisition and Disposal Management Activities, Settlement of Claims, and Audits for recreation features.

Includes all costs for planning, appraisal, negotiation, condemnation, relocation assistance, mapping surveying, title evidence, inspection, closing, audits and temporary permits necessary to acquire or dispose of lands and interests that support the recreational features of a project.

WORK CATEGORY CODE: **61552** - Real Estate - Resolution of Real Estate Encroachments for the Recreation Function

WORK CATEGORY DESCRIPTION: Real Estate - Resolution of Real Estate Encroachments for recreation features.

Includes all costs for the resolution of all encroachments on projects lands classified for recreational use and degradation of public lands and encroachments adversely affecting the recreational use of the project; including investigation, acquisition, disposal, and out-granting. Costs for boundary line surveys and remarking should be included in Work Category Code 61553.

WORK CATEGORY CODE: **61553** - Real Estate - Boundary Monumentation and Rectification for the Recreation Function

WORK CATEGORY DESCRIPTION: Real Estate - Boundary Monumentation and Rectification for recreation features.

Includes all costs to survey and mark boundary lines in support of acquisition; to resurvey or remark boundary lines and place monuments in support of Executive Order actions and disposal actions, and costs to survey and mark boundary lines where not previously completed on lands classified for recreational use at a project.

WORK CATEGORY CODE: **61560** - Environmental Compliance (Remedial Actions) for the Recreation Function

WORK CATEGORY DESCRIPTION: Environmental Compliance (remedial actions) for recreation features.

Includes all maintenance, repair and remediation costs to comply with applicable Federal environmental laws and regulations, including the Safe Drinking Water Act, Resource Conservation and Recovery Act (RCRA), Clean Air Act, Hazardous Materials Transportation Act, the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), EO 13148, and applicable state and local regulations for recreation facilities and visitor centers. Costs include salaries, contaminant detection, waste analysis, site investigations, site remediation, treatment system installation, repair, renovation, and

modification. Other costs associated with complicance include activities such as responding to marinas spills, updating hazard communication, disposal of unclaimed barrels or containers, and responding or clean-up of pesticide or chemical releases that support recreational activities on Corps owned land. Costs associated with medical surveillance and other employee health and safety requirements are not included.

WORK CATEGORY CODE: **61570**

WORK CATEGORY DESCRIPTION: Reserved.

WORK CATEGORY CODE: **61580**

WORK CATEGORY DESCRIPTION: Reserved.

WORK CATEGORY CODE: **61591** – Facility Security Maintenance and Replacement for Recreation

WORK CATEGORY DESCRIPTION: Facility Security – Maintenance and Replacement for recreation features.

Includes all costs to maintain and replace structural improvements for facility protection and security related to criminal and terrorist activities. Includes costs to maintain, repair or replace permanent or temporary barriers, fencing, traffic signs, lighting, communications equipment, intrusion detection systems such as video surveillance equipment and cameras, and access control. Costs for assessments are included in Work Category Code (WCC) 60591, and costs for guards and surveillance activities are included in WCC 60592. Costs for improvements and modifications are included in WCC 61592. Includes some costs formerly included in WCC 61590.

WORK CATEGORY CODE: **61592** – Facility Security Physical Improvements and Modifications for Recreation

WORK CATEGORY DESCRIPTION: Facility Security – Physical Improvements and Modifications for recreation features.

Includes all costs for engineering and design, and to acquire and install structural improvements, modifications and physical improvements for facility protection and security related to criminal and terrorist activities. Includes costs for permanent or temporary barriers, fencing, traffic signs, lighting, communications equipment, intrusion detection systems such as video surveillance equipment and cameras, and access control. Includes some costs formerly included in WCC 61590.

WORK CATEGORY CODE: **61610** - Joint Activities for Maintenance excluding Dredging, FERC #541, #542, #543, #544 and #545

WORK CATEGORY DESCRIPTION: Joint costs for Maintenance activities NOT specific to Navigation, Flood Damage Reduction, Hydropower, Environmental Stewardship, Recreation and Water Supply. These activities include maintenance of Dams, Reservoirs, Levees, Floodwalls, Hurricane Barriers, and Other Control Structures; Snagging, Clearing, Aquatic Plant Removal, Rock and Other Debris Removal, and Other Non-Dredging Channel Maintenance; Pumping Plants, Other Service Facilities (Buildings, Grounds, Utilities, and Roads, Railroads and Bridges), Gates, Conduits, Maintenance and Purchase of Permanent Operating Equipment, etc. excluding dredging.

Includes all joint costs for the maintenance and repair, replacement, additions and efficiency improvements to, or retirement of; related joint costs for spare parts, replacements, additions, special tools, miscellaneous supplies and materials; government plant and hired labor for project maintenance and contract support, transportation costs and other costs required to perform this maintenance function; purchase of permanent operating equipment:

of joint use facilities and equipment for dams, spillways, outlet works and auxiliary dams;

of reservoirs and facilities including floating trash booms, trash racks, erosion control, drainage, major periodic or one time removal of debris or aquatic growth to ensure proper functioning of the reservoir (minor and routine removal of growth and debris in the vicinity of dam structures and from reservoirs should be charged to Work Category Code 60610); and rim grouting or mine sealing, etc., to prevent leakage;

of levees, floodwalls, hurricane barriers, embankments, walls, in-channel structures, and other control structures to protect areas from inundation; snagging, clearing, debris removal; and non-dredging channel maintenance. This includes costs for removal of trees, brush, accumulated snags, drifts, and debris from canals and waterways; and channel improvement structures, revetments, linings, dikes, jetties, bulkheads, and buildings;

of pumping plants including such items as buildings, pumps, and prime movers including power supplies, controls, piping, and all other associated facilities;

of non-dredging channel maintenance including snagging, clearing, aquatic plant removal, removal of sunken vessels, drift removal, rock and other debris removal;

of buildings, grounds, utilities, and roads, railroads and bridges, such as administration and shop buildings, storage and garage buildings and areas, other non-leased or rented project buildings, local streets and sidewalks, project access roads, including the road across dams, parking areas, bridges, railroads, and walkways. Also includes costs for project utilities including electrical, gas, water, and sewer systems;

of permanent operating equipment;

and for instrumentation on dam structures, levees, floodwalls, hurricane barriers, and other control structures including costs related to installation and maintenance of instruments in existing structures for safety evaluation purposes consistent with an approved plan. This includes instrumentation for measuring horizontal and vertical movement, stresses and strains, pore pressure, phreatic surfaces, seismic effects, and seepage clarity and quality.

WORK CATEGORY CODE: **61621** - Joint Activities for Dredging, FERC #543

WORK CATEGORY DESCRIPTION: Joint costs for Dredging of Channels and Canals NOT specific to Navigation, Flood Damage Reduction, Hydropower, Environmental Stewardship, Recreation and Water Supply. These activities include all disposal activities such as confined, open water, beach, wetland creation, aquatic habitat creation, etc.

Includes all joint costs for maintenance dredging of project channels and canals, and disposal activities, except for project condition sediment survey costs which are included in Work Category Code 60621. Also included are joint costs to obtain environmental clearances to perform the associated dredging. Long-range environmental requirements and costs for initial project condition surveys are included in

related operations accounts. Also includes joint costs associated with the disposal of dredged materials in confined disposal facilities; open water; sand on beaches; the creation or restoration of wetlands or other aquatic habitat using dredged material; and the creation of land using dredged material. Also includes related joint costs for spare parts, replacements, special tools, miscellaneous materials and supplies, transportation and equipment usage.

WORK CATEGORY CODE: **61622** - Joint Activities for Dredging - Construction and Maintenance of Dredged Material Disposal Facilities, FERC #543

WORK CATEGORY DESCRIPTION: Joint costs for the Construction and Maintenance of Disposal Facilities for Dredged Materials NOT specific to Navigation, Flood Damage Reduction, Hydropower, Environmental Stewardship, Recreation and Water Supply.

Includes all joint costs for the construction and the maintenance of disposal facilities, including confined disposal facilities, for dredged materials. Also includes related joint costs for spare parts, replacements, special tools, miscellaneous materials and supplies, transportation and equipment usage.

WORK CATEGORY CODE: **61630** - Joint Activities for Dam Safety Remediation of Deficiencies

WORK CATEGORY DESCRIPTION: Joint costs for Remediation of Safety Deficiencies for Dams, Levees and Other Structures as appropriate NOT specific to Navigation, Flood Damage Reduction, Hydropower, Environmental Stewardship, Recreation and Water Supply.

Includes all direct costs for the non-routine repair, replacement and corrections to all dams included in the National Inventory of Dams plus any levees, diversion structures and related appurtenances maintained at Federal expense to remediate dam safety deficiencies. Includes related costs for contracts, parts, replacements, special tools, supplies and materials, government plant, hired labor to include contract support, transportation costs and other costs required to perform this work. Specifically, this includes non-routine maintenance and/or repair work for dams and pertinent structures and levees that have either been identified by any means as having a Dam Safety Deficiency or has been concurred to be deficient by the District Commander, his appointed Dam Safety Officer or District Dam Safety Program Manager. Dam Safety maintenance or repair work may be identified by any means such as a study, criteria review, or any scheduled or unscheduled inspection. Dam safety related work such as inspections, inspection reports, rehabilitation reports, studies, surveys, and instrumentation will be categorized under the existing Work Category Codes in accordance with current practice. Only the actual work to include the associated plans and specifications (P&S), engineering and design (E&D) for the repairs or remedial corrections will be included in this Work Category Code as appropriate. For those business programs that do not specifically have a Work Category Code for Dam Safety (61130, 61230 and 61330) yet may encounter dam safety related work, the costs should be included in the primary business program for that project. Costs are only included in this Work Category Code if they meet the above definition for Dam Safety. Costs for regular, recurring maintenance activities will not be included in this WCC.

WORK CATEGORY CODE: **61640** - Joint Activities for Water Management Equipment, FERC #542

WORK CATEGORY DESCRIPTION: Joint costs for the Purchase and Maintenance of Water Management (Control and Quality) Equipment NOT specific to Navigation, Flood Damage Reduction, Hydropower, Environmental Stewardship, Recreation and Water Supply.

Includes all joint costs for the purchase of new or replacement hardware, software, and equipment (upgrades, betterments or expansion) and the maintenance of existing equipment used to acquire, process, display, and distribute data associated with project water management and regulation (water

control and quality). This includes only those costs related to equipment justified in approved Division water management Master plans. Purchase of multi-project equipment will be included in the Revolving Fund (PRIP). This includes PRIP payback for equipment purchase, software development, and system betterment for the Corps new Water Management System (SWMS). This also includes costs for maintenance and support of CWMS.

WORK CATEGORY CODE: **61651** - Joint Activities for Real Estate - Land Acquisition and Disposal Management Activities, Settlement of Claims, and Audits, FERC #545

WORK CATEGORY DESCRIPTION: Joint costs for Real Estate activities - Land Acquisition and Disposal Management Activities, Settlement of Claims, and Audits NOT specific to Navigation, Flood Damage Reduction, Hydropower, Environmental Stewardship, Recreation and Water Supply.

Includes all joint costs for planning, appraisal, negotiation, condemnation, relocation assistance, mapping, surveying, title evidence, inspections, closings, audits and temporary permits necessary to acquire or dispose of lands and interests, real estate payments for acquisition of real property and interests therein, and costs to take necessary actions to settle claims, including damage payments arising from claims over the use and occupancy of land, real property and timber in which fee, easements, or lesser interests were not acquired.

WORK CATEGORY CODE: **61652** - Joint Activities for Real Estate - Resolution of Real Estate Encroachments, FERC #545

WORK CATEGORY DESCRIPTION: Joint costs for Real Estate activities - Resolution of Real Estate Encroachments NOT specific to Navigation, Flood Damage Reduction, Hydropower, Environmental Stewardship, Recreation and Water Supply.

Includes all joint costs for the resolution of all encroachments on project lands, and degradation of public lands and encroachments adversely affecting the intended uses of potentially high use areas; including investigation, acquisition, disposal, and out-granting.

WORK CATEGORY CODE: **61653** - Joint Activities for Real Estate - Boundary Monumentation and Rectification, FERC #545

WORK CATEGORY DESCRIPTION: Joint costs for Real Estate activities - Boundary Monumentation and Rectification NOT specific to Navigation, Flood Damage Reduction, Hydropower, Environmental Stewardship, Recreation and Water Supply.

Includes all joint costs to survey and mark boundary lines in support of acquisition; to resurvey or remark boundary lines and place monuments in support of Executive Order actions and disposal actions; and costs to survey and mark boundary lines where not previously completed.

WORK CATEGORY CODE: **61660** - Joint Activities for Environmental Compliance (Remedial Actions), FERC #545

WORK CATEGORY DESCRIPTION: Joint costs for Environmental Compliance (remedial actions) NOT specific to Navigation, Flood Damage Reduction, Hydropower, Environmental Stewardship, Recreation and Water Supply. These activities include actions for Dams, Levees, Other Control Structures, Pumping Plants and Other Project Facilities.

Includes all joint costs maintenance, repair and remediation costs to comply with applicable Federal laws

and regulations, including the Safe Drinking Water Act, Resource Conservation and Recovery Act (RCRA), Clean Air Act, Hazardous Materials Transportation Act, the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), EO 13148, and applicable state and local regulations for dams, reservoirs, levees, other control structures, pumping plants and other joint use project facilities. Costs include salaries, contaminant detection, waste analysis, site investigations, site remediation, treatment system installation, repair, renovation, modification, and other costs associated with compliance. Costs associated with medical surveillance and other employee health and safety requirements are not included.

WORK CATEGORY CODE: **61670**

WORK CATEGORY DESCRIPTION: Reserved.

WORK CATEGORY CODE: **61680**

WORK CATEGORY DESCRIPTION: Reserved.

WORK CATEGORY CODE: **61691** – Joint Activities for Facility Security Maintenance and Replacement

WORK CATEGORY DESCRIPTION: Joint Costs for Facility Security – Maintenance and Replacement NOT specific to Navigation, Flood Damage Reduction, Hydropower, Environmental Stewardship, Recreation and Water Supply.

Includes all joint costs to maintain and replace structural improvements for facility protection and security related to criminal and terrorist activities. Includes joint costs to maintain, repair or replace permanent or temporary barriers, fencing, traffic signs, lighting, communications equipment, intrusion detection systems such as video surveillance equipment and cameras, and access control. Joint costs for assessments are included in Work Category Code 60691, and costs for guards and surveillance activities are included in Work Category Code 60692.

WORK CATEGORY CODE: **61692** – Joint Activities for Facility Security Physical Improvements and Modifications

WORK CATEGORY DESCRIPTION: Joint Costs for Facility Security – Physical Improvements and Modifications NOT specific to Navigation, Flood Damage Reduction, Hydropower, Environmental Stewardship, Recreation and Water Supply.

Includes all joint costs for engineering and design, and to acquire and install structural improvements, modifications and physical improvements for facility protection and security related to criminal and terrorist activities. Includes joint costs for permanent or temporary barriers, fencing, traffic signs, lighting, communications equipment, intrusion detection systems such as video surveillance equipment and cameras, and access control. Joint costs for assessments are included in Work Category Code 60691, and costs for guards and surveillance activities are included in Work Category Code 60692.

WORK CATEGORY CODE: **61810** - Maintenance for the Water Supply Function

WORK CATEGORY DESCRIPTION: Maintenance of Project Gates, Water Supply Conduits, Permanent Operating Equipment, etc. excluding dredging activities for water supply features.

Includes all direct costs for the maintenance and repair, replacement, additions and efficiency

improvements to, or retirement of; related costs for spare parts, replacements, additions, special tools, miscellaneous supplies and materials; government plant and hired labor for project maintenance and contract support, transportation costs and other costs required to perform this maintenance function; purchase of permanent operating equipment for non-Water Management activities: of project gates and specific water supply conduits; and permanent operating equipment. Prior to FY 07, these costs were included in WCC 61211.

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SUB-ANNEX C-5

Systems and Justification of Estimates

C-5.1. **Operations and Maintenance Systems and Regions**. The PY O&M budget will be formulated on a system basis and, if Congress concurs on the benefit of planning and carrying out the O&M program in accordance with system-wide priorities, the O&M program would be managed by system and business line, rather than project-by-project. Operation and maintenance work funded in this manner will allow managers in the field more flexibility to address uncertainties and change conditions throughout the fiscal year, consistent with budget and appropriations decisions. The work is accomplished in the following water resource systems as delineated by watershed boundaries. Proposed PY funding will be consolidated according to Civil Works program areas, such as commercial navigation and flood damage reduction, for each of the systems as developed in the United States, using HUC sub-regions as established by the US Geological Survey. Specific projects that would receive funding in each system will also be identified by name.

C-5-2. **Narrative and Supporting Data.**

a. **Justification of Estimates Congressional Submission.** Each MSC shall prepare and submit *Justification of Estimate* sheets based on amounts provided by CECW-IP for the System, using a format to be provided in final form. To avoid illogical precision, no amounts should be rounded to less than $1,000, using the 5/4 rule. This is a widely read document. To preclude misinterpretations by Congressional and other reviewers, do not use vague, stereotyped, descriptions in the Reason for Change and Maintenance Item column. Standard phraseology is acceptable, if used judiciously, such that the descriptions are clear and understandable to the reader. Be as specific as possible using a condensed version of what the testifying officer would answer if asked by the Sub-Committee the reason for changes from prior year. The tone of statements must reflect a full support of the President's Program request with no hints that amounts may not be adequate. Accordingly, a remark explaining higher amounts is preferable. The typed material in the body will be confined to 6 1/2 inches vertically and 10 inches horizontally, leaving 1/2 inch margins on the left and right sides and 0.607 inch margins at the top and bottom of an 11 X 8-1/2 inch page size. Justification sheets must be submitted as Microsoft Word documents over the Corps Outlook Electronic Mail. ASCII format is not acceptable because it deletes control codes for formatting. In addition, Project status maps are required for all Major Rehabilitation work that is being funded under the O&M, appropriation. To avoid allocation problems associated with roll-ups, projects spanning more than one district should be entered separately with titles showing the district name, for example:

OHIO RIVER LOCKS AND DAMS, PA (Pittsburgh Dist.)
OHIO RIVER LOCKS AND DAMS, WV (Huntington Dist.)
OHIO RIVER LOCKS AND DAMS, KY, IL, IN, OH, & WV (Louisville Dist.)

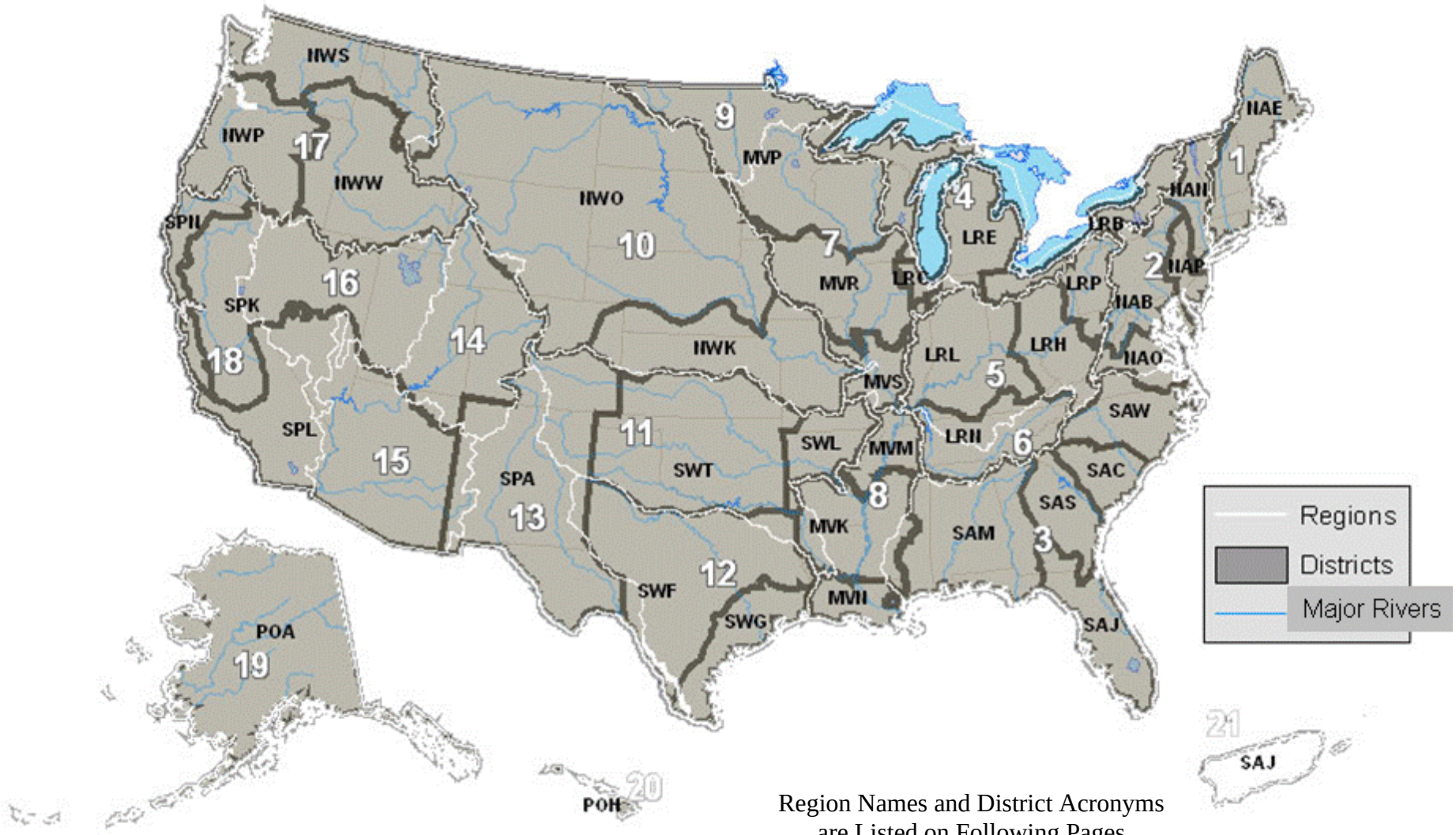
(Other projects include Ohio River Open Channel Work, McClellan-Kerr, Missouri River and the Upper Mississippi River or district-wide activities such as Inspection of Completed Works or Scheduling Reservoir Activities) If a state is included in more than one district, only the primary district should show that state in the title.

b. **State Designation for Inspection of Completed Works (ICW),** Project Condition Surveys (PCS), Scheduling Reservoir Operations (SRO), Surveillance of Northern Boundary Waters (SNBW) and Inspection of Ecosystem Restoration Projects.

Each of these programs will have a budget activity per state per funding increment. In those cases where these programs are performed in more than one state, the district will have a budget activity for each state. The budget activities do not necessarily have to be in the same funding increment. For example, Little Rock District (SWL) has projects in Missouri and Arkansas therefore SWL should have at least two IWC budget activities, one for Missouri and one for Arkansas. Some SWL projects cross state lines such as Table Rock Lake. All the ICW for this project should be included for its primary state, which is Missouri. The justification/Remarks will indicate how many surveys, inspections, actions, etc. of that districts total will be performed for the respective Business Program funding increment. For example the Business Line initial increment ICW budget activity for SWL for Missouri would state five critical inspections would be conducted out of a total of 10 in the PY. Additional ICW budget activity(s) would be included in next-added Business Line increments as justified by increased performance or benefits.

C-5.3. **Definitions.** R=Reconnaissance; F=Feasibility; P=PED; C=Construction; CR=Replacement; O=Operations; M=Maintenance (regular, not major or rehab); MM=Major Maintenance; MR= Rehabilitation; OJ=Operation Joint Activities; MJ=Maintenance Joint Activities;

Table C-5.1 Systems May 08.xls



Region Names and District Acronyms
are Listed on Following Pages

The work is accomplished in the following water resource Systems as delineated by watershed boundaries (HUC sub-regions):

GLOSSARY OF DISTRICT ACRONYMS

LRB Buffalo District
LRC Chicago District
LRD Great Lakes & Ohio River Division
LRE Detroit District
LRH Huntington District
LRL Louisville District
LRN Nashville District
LRP Pittsburgh District
MVD Mississippi Valley Division
MVK Vicksburg District
MVM Memphis District
MVN New Orleans District
MVP St. Paul District
MVR Rock Island District
MVS St. Louis District
NAB Baltimore District
NAD North Atlantic Division
NAE New England District
NAN New York District
NAO Norfolk District
NAP Philadelphia District
NWD Northwestern Division
NWK Kansas City District
NWO Omaha District
NWP Portland District
NWS Seattle District
NWW Walla Walla District
POA Alaska District
POD Pacific Ocean Division
POH Honolulu District
SAC Charleston District
SAD South Atlantic Division
SAJ Jacksonville District
SAM Mobile District
SAS Savannah District
SAW Wilmington District
SPA Albuquerque District
SPD South Pacific Division
SPL Los Angeles District
SPK Sacramento District
SPN San Francisco District
SWD Southwestern Division
SWF Fort Worth District
SWG Galveston District
SWL Little Rock District
SWT Tulsa District

The Flood Control, Mississippi River and Tributaries (MR&T) appropriation funds planning, construction, and operation and maintenance activities associated with projects to reduce flood damage in the lower Mississippi River alluvial valley below Cape Girardeau, Missouri. The entire MR&T area is included in the Lower Mississippi Region - The drainage of: (a) the Mississippi River below its confluence with the Ohio River, excluding the Arkansas, Red, and White River Basins above the points of highest backwater effect of the Mississippi River in those basins; and (b) coastal streams that ultimately discharge into the Gulf of Mexico from the Pearl River Basin boundary to the Sabine River and Sabine Lake drainage boundary. Includes parts of Arkansas, Kentucky Louisiana, Mississippi, Missouri, and Tennessee. Projects funded in the PY budget for operation, maintenance, and rehabilitation are as follows:

Arkansas
Helena Harbor, Phillips County, AR
Inspection Of Completed Works, AR
Lower Arkansas River, North Bank, AR
Lower Arkansas River, South Bank, AR
White River Backwater, AR

Illinois
Inspection Of Completed Works, IL

Kentucky
Inspection Of Completed Works, KY

Louisiana
Atchafalaya Basin, Floodway System, LA
Atchafalaya Basin, LA
Baton Rouge Harbor, Devil Swamp, LA
Bayou Cocodrie And Tributaries, LA
Bonnet Carre, LA
Inspection Of Compelted Works, LA
Lower Red River, South Bank Levees, LA
Mississippi Delta Region, LA
Old River, LA
Tensas Basin, Boeuf And Tensas Rivers, AR
& LA
Tensas Basin, Red River Backwater, LA

Missouri
Inspection Of Completed Works, MO
St Francis Basin, AR & MO
Wappapello Lake, MO

Mississippi
Greenville Harbor, MS
Inspection Of Completed Works, MS
Vicksburg Harbor, MS
Yazoo Basin, ARkabutla Lake, MS
Yazoo Basin, Big Sunflower River, MS
Yazoo Basin, Enid Lake, MS
Yazoo Basin, Greenwood, MS
Yazoo Basin, Grenada Lake, MS
Yazoo Basin, Main Stem, MS
Yazoo Basin, Sardis Lake, MS
Yazoo Basin, Tributaries, MS
Yazoo Basin, Will M Whittington Aux Chan, MS
Yazoo Basin, Yazoo Backwater Area, MS
Yazoo Basin, Yazoo City, MS

Tennessee
Inspection Of Completed Works, TN
Memphis Harbor, Mckellar Lake, TN

Mississippi River Levees
Revetments And Dikes
Dredging

ILLUSTRATION C-5.2

Major Subordinate Command (MSC)
Supplemental Justification Sheet
Major Maintenance

1. **DESCRIPTION OF WORK:** (Describe specific items of work to be included in the overall package.)

2. **JUSTIFICATION**: (Provide justification for the total work to be accomplished, including economic evaluation. Quantify benefits when possible. In last paragraph of justification, provide arguments on why the work should be started in the program year, either design or construction; and the impact of not starting the work in the program year. For ongoing work, include the impacts of not continuing the work in the program year. These paragraphs must be in sufficient detail to permit a decision to be made on the investment.)

3. **ESTIMATED COST AND SCHEDULE:** (Provide the basis of the estimated cost, i.e., based on cost of XYZ PROJECT IN FY 1990 indexed to current price levels, reconnaissance level estimate, e.g. *Design Memorandum D-28 approved 22 January 1993, etc;* and include the amount of contingencies included in the estimate. The cost estimate should be broken down to reflect individual DDRs, procurements, contracts, installations, etc. Schedule dates should be shown only to the month and year, e.g.,11/01, and all dollar amounts in even thousands, i.e., $10,000 to be shown as 10. The estimate and schedule should include required fund requirements for engineering and design during construction and other related costs for completion of a total package. If contributed funds are required for Corps construction activities, include in cost estimate and add a line to the schedule with minus entries; so that the total line will reflect Total Federal fund requirements by year.)

NOTE: This illustration is included to show the additional information required for major maintenance activities. This information will be provided in the format shown in the expanded funding argument field.

ILLUSTRATION C-5.3a
Major Subordinate Command
Justification Of Estimate

APPROPRIATION TITLE: Operation and Maintenance, FY (PY)

I. Navigation
Channels and Harbors. The program estimate of $ provides for essential operation and maintenance work on xx channel and harbor projects named in the list which follows. The work to be accomplished under this activity consists of operating and maintaining the coastal navigation channels, harbors and anchorages by means of dredging, constructing bulkheads and spoil disposal areas, snagging, and repairing channel stabilization works, navigation structures, and harbor jetties, all as authorized in the laws pertaining to river and harbor projects.

System XYZ.

Projects funded in the PY budget for operation, maintenance, and rehabilitation are as follows:

Connecticut
Project A
Project B
Project C

Massachusetts
Project A
Project B
Project C

Maine
Project A
Project B
Project C

New Hampshire
Project A
Project B
Project C

Rhode Island
Project A
Project B
Project C

Vermont
Project A
Project B
Project C

1/ Projects funded in the PY budget for minimal operation and maintenance.

In addition, funding may be reallocated to the following projects that were included in the PY-1 budget, where necessary to complete a useful increment of work for which PY funding proves to be insufficient.

Maine
Maine Project 1
Maine Project 2

Massachusetts
Massachusetts Project 1

The PY budget includes funding for operation, maintenance, and rehabilitation in System XYZ by business line as follows:

North Atlantic Division (NAD) (Dollars in Thousands)				
Business Line Navigation State/Project Name		FY (PY-1) Total (operations) (Maintenance)	FY (PY) Total (operations) (Maintenance)	Reason for Change and Major Maintenance Items 1. Reasons for change in Operations from PY-1 to PY (10% +/-) 2. Major Maintenance Items Programmed in PY (Threshold $3,000,000)
State 1				
Project A	Total			
	O			
	M			
Project B	Total			
	O			
	M			
State 2				
Project A	Total			
	O			
	M			
Project B	Total			
	O			
	M			
NAD Division Total in System	Total			
	O			
	M			

ILLUSTRATION C-5.3a
Major Subordinate Command
Justification Of Estimate

APPROPRIATION TITLE: Operation and Maintenance, FY (PY)

I. Navigation

Channels and Harbors. The program estimate of $ provides for essential operation and maintenance work on xx channel and harbor projects named in the list which follows. The work to be accomplished under this activity consists of operating and maintaining the coastal navigation channels, harbors and anchorages by means of dredging, constructing bulkheads and spoil disposal areas, snagging, and repairing channel stabilization works, navigation structures, and harbor jetties, all as authorized in the laws pertaining to river and harbor projects.

System XYZ

Projects funded in the PY budget for operation, maintenance and rehabilitation are as follows:

District Of Columbia
Project A
Project B
Project C

Delaware
Project A 1/
Project B
Project C

Maryland
Project A
Project B
Project C 1/

New Jersey
Project A
Project B
Project C 1/

New York
Project A
Project B
Project C 1/

Pennsylvania
Project A
Project B
Project C

Virginia
Project A
Project B
Project C

West Virginia
Project A
Project B
Project CMD & Wv

1/ Projects funded in the PY budget for minimal operation and maintenance.

In addition, funding may be reallocated to the following projects that were included in the PY-1 budget, where necessary to complete a useful increment of work for which PY funding proves to be insufficient.

Maryland
Maryland Project 1

System XYZ - Continued

The PY budget includes funding for operation, maintenance, and rehabilitation in System XYZ by business line as follows:

Great Lakes and Ohio River Division (LRD) (Dollars in Thousands)				
Business Line Navigation State/Project Name		FY (PY-1) Total (operations) (Maintenance)	FY (PY) Total (operations) (Maintenance)	Reason for Change and Major Maintenance Items 1. Reasons for change in Operations from PY-1 to PY (10% +/-) 2. Major Maintenance Items Programmed in PY (Threshold $3,000,000)
Sate 1				
Project A	Total			
	O			
	M			
Project B	Total			
	O			
	M			
State 2				
Project A	Total			
	O			
	M			
Project B	Total			
	O			
	M			
LRD Division Total in System	Total			
	O			
	M			

System XYZ - Continued

The PY budget includes funding for operation, maintenance, and rehabilitation in System XYZ by business line as follows:

North Atlantic Division (NAD) (Dollars in Thousands)				
Business Line Navigation State/Project Name		FY (PY-1) Total (operations) (Maintenance)	FY (PY) Total (operations) (Maintenance)	Reason for Change and Major Maintenance Items 1. Reasons for change in Operations from PY-1 to PY (10% +/-) 2. Major Maintenance Items Programmed in PY (Threshold $3,000,000)
State 1				
Project A	Total			
	O			
	M			
Project B	Total			
	O			
	M			
State 2				
Project A	Total			
	O			
	M			
Project B	Total			
	O			
	M			
NAD Division Total in System	Total			
	O			
	M			

System XYZ - Continued

The PY budget includes funding for operation, maintenance, and rehabilitation in System XYZ 2 by business line as follows:

System XYZ Total				
Business Line Navigation		FY (PY-1) Total (operations) (Maintenance)	FY (PY) Total (operations) (Maintenance)	Reason for Change and Major Maintenance Items 1. Reasons for change in Operations from PY-1 to PY (10% +/-) 2. Major Maintenance Items Programmed in PY (Threshold $3,000,000)
System XYZ Total	Total			
	O			
	M			

ILLUSTRATION C-5.3b
Major Subordinate Command
Justification Of Estimate

APPROPRIATION TITLE: Operation and Maintenance, FY (PY)

2. Flood Control

a**. Reservoirs: Scheduling Reservoir Operations.** The $ requested in FY (PY) supports preparation, review and updating of water control manuals, real-time data collection to monitor hydrologic conditions, and the issuance of gate regulation instructions as necessary at non-Corps dam and reservoir projects at which the Corps is responsible for flood control or navigation.

System XYZ

Projects funded in the PY budget for operation, maintenance and rehabilitation are as follows:

Arkansas	Louisiana	Texas
Colorado	Missouri	
Kansas	Oklahoma	

1/ Projects funded in the PY budget for minimal operation and maintenance.

In addition, funding may be reallocated to the following projects that were included in the PY-1 budget, where necessary to complete a useful increment of work for which PY funding proves to be insufficient.

Arkansas
Arkansas Project 1
Arkansas Project 2

Texas
Texas Project 1

The PY budget includes funding for Scheduling Reservoir Operations in System XYZ as follows:

Southwestern Division (SWD) (Dollars in Thousands)			
Business Program Flood Control Scheduling Reservoir Operations State/Project Name	FY (PY-1) Total (operations) (Maintenance)	FY (PY) Total (operations) (Maintenance)	Reason for Change and Major Maintenance Items 1. Reasons for change in Operations from PY-1 to PY (10% +/-) 2. Major Maintenance Items Programmed in PY (Threshold $3,000,000)
Arkansas			
Colorado			
Kansas			
Louisiana			
Missouri			
Oklahoma			
Texas			
SWD Division Total in System			

b. **Channel Improvement**: **Inspection of Completed Works**. The $ requested in FY (PY) supports inspections at flood control projects constructed by the Corps and operated and maintained by non-Federal interests. The inspections are conducted to determine the extent of compliance with legal standards and to advise local interests, as necessary, of corrective measures required to ensure that project structures and facilities will continue to safely provide flood protection benefits. These projects consist of features such as channels, levees, flood walls, drainage structures and pumping plants.

The PY budget includes funding for Inspection of Completed Works in System XYZ as follows:

Southwestern Division (SWD) (Dollars in Thousands)			
Business Program Flood Control Inspection of Completed Works State/Project Name	FY (PY-1) Total (operations) (Maintenance)	FY (PY) Total (operations) (Maintenance)	Reason for Change and Major Maintenance Items 1. Reasons for change in Operations from PY-1 to PY (10% +/-) 2. Major Maintenance Items Programmed in PY (Threshold $3,000,000)
Arkansas			
Colorado			
Kansas			
Louisiana			
Missouri			
Oklahoma			
Texas			
SWD Division Total in System			

ILLUSTRATION C-5.3c
Major Subordinate Command
Justification Of Estimate

APPROPRIATION TITLE: Operation and Maintenance, FY (PY)

3. Protection of Navigation

a**. Project Condition Surveys**. The $ requested in FY (PY) supports hydrographic surveys, inspections, and studies to determine the condition of navigation channels that do not have any other maintenance work included in the program request and disseminate the information to users of the projects. For the projects that do not require maintenance, surveys are performed at many of them in order to determine the degree of sedimentation so that users can be advised of channel conditions and future maintenance can be scheduled.

System XYZ

Projects funded in the PY budget for operation, maintenance and rehabilitation are as follows:

Illinois	Minnesota	Pennsylvania
Indiana	New York	Wisconsin
Michigan	Ohio	

1/ Projects funded in the PY budget for minimal operation and maintenance.

In addition, funding may be reallocated to the following projects that were included in the PY-1 budget, where necessary to complete a useful increment of work for which PY funding proves to be insufficient.

Indiana
Indiana Project 1
Indiana Project 2

New York
New Yorks Project 1

The PY budget includes funding for Scheduling Reservoir Operations in System XYZ as follows:

Great Lakes and Ohio River Division (LRD) (Dollars in Thousands)			
Business Program Protection of Navigation Project Condition Surveys State/Project Name	FY (PY-1) Total (operations) (Maintenance)	FY (PY) Total (operations) (Maintenance)	Reason for Change and Major Maintenance Items 1. Reasons for change in Operations from PY-1 to PY (10% +/-) 2. Major Maintenance Items Programmed in PY (Threshold $3,000,000)
Illinois			
Indiana			
Michigan			
Minnesota			
New York			
Ohio			
Pennsylvania			
Wisconsin			
LRD Division Total in System			

b. Surveillance of Northern Boundary Waters. The $ requested in FY (PY) supports meeting US obligations under provisions of boundary water treaties and other international agreements. Data collection includes current velocity measurements, presence and intensity of ice, water levels, land use patterns and estimating potential damages caused by extreme levels. This information can be used to enhance water level forecasts, develop crises response plans, and provide advance warning to area residents and waterway users of impending floods or ice jams.

The PY budget includes funding for Surveillance of Northern Boundary Waters in System XYZ as follows:

Great Lakes and Ohio River Division (LRD) (Dollars in Thousands)			
Business Program Protection of Navigation Surveillance of Northern Boundary Waters State/Project Name	FY (PY-1) Total (operations) (Maintenance)	FY (PY) Total (operations) (Maintenance)	Reason for Change and Major Maintenance Items 1. Reasons for change in Operations from PY-1 to PY (10% +/-) 2. Major Maintenance Items Programmed in PY (Threshold $3,000,000)
Illinois			
Indiana			
Michigan			
Minnesota			
New York			
Ohio			
Pennsylvania			
LRD Division Total in System			

ANNEX D
EXPENSES
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SUB-ANNEX D-1

Expenses
Applicability

D-1.1. **Appropriation Title.** Expenses 96X3124

D-1.2. **Purpose.** This annex provides guidance for development of the Expenses (E) Program for Headquarters, U. S. Army Corps of Engineers (HQUSACE), Major Subordinate Commands (MSCs), and other command and control support activities.

D-1.3. **Activities Included.** The CCS codes for use with this program submission are in Table 3 of the main part of the EC.

SUB-ANNEX D-2

Expenses
Program Guidance

D-2.1. **Program Objective.** The objective of the Expenses (E) Program is to resource the Civil Works Executive Direction and Management (ED&M) activities of the US Army Corps of Engineers (USACE).

a. ED&M is comprised of five functions:

(1) Command and Control – Exercise of command and control of USACE Civil Works Program operations;

(2) Policy and Guidance – Development, coordination and issuance of policy and guidance that will guide headquarters, regional, and field operations;

(3) Program Management – Development, defense and execution of the Civil Works Programs;

(4) National Level Coordination – Coordination with the Administration, federal and state agencies, national stakeholders, and other interest groups to facilitate development of program policy and guidance and efficient execution of the Civil Works Program; and

(5) Quality Assurance – Assurance that the Civil Works Program is being executed in accordance with law, policy and guidance.

b. Support activities outside of the headquarters are accomplished by:

(1) The eight (8) Major Subordinates Commands,

(2) Institute of Water Resources (IWR) - providing forward-looking analysis and research in development of planning methodologies for the Civil Works Program.,

(3) Humphreys Engineer Center Support Activity (HECSA) – providing administrative and operational support to HQUSACE for the Civil Works Program,

(4) Engineering Research and Development Center (ERDC) - conducting research and development as support of the Civil Works Program,

(5) USACE Finance Center - providing finance & accounting support for the Civil Works Program,

(6) Army Corps of Engineers – Information Technology (ACE-IT) – providing corporate information management support to HQUSACE for the Civil Works program; and

(7) USACE Logistics Activity (ULA) – provides logistics support to HQUSACE for the Civil Works program.

c. Program and Financing. The Expenses Program will be developed for the accomplishment of the program objective by HQUSACE, Major Subordinate Commands (MSCs), and other USACE command and control support activities. The Expenses Program will reflect any carry-over from prior fiscal years and the USACE Consolidated Command Guidance (CCG), last updated on 10 Oct 07, the Command Priorities and Budget Guidance Memo, as well as any new initiatives approved by the Chief of Engineers' and/or directed by Assistant Secretary of Army (ASA) for Civil Works (CW)/Office of

Management and Budget (OMB)/Congress. Further program formulation for FY 09/10/11 will be developed based on guidance issued by HQ Resource Management. Requirements will be submitted on the spreadsheet reflected by Illustration D-2.1. Further details in support of the budget submission will be reflected in the spreadsheet at Illustration D-2.2.

d. Audit costs formally budgeted through the Expense Account will be funded through the Revolving Fund Account.

e. Labor Requirements and Funding.

(1) Labor Requirements. Estimates of labor requirements for Program Year (PY-1) (2009) will reflect the most efficient utilization of personnel necessary to achieve the program objective. Staffing will be at the 2012 Future Force authorized level published in the CCG. Labor estimates for PY (2010) and PY+2 (2011) will be at the required (full staffing) level of 997 FTE.

(2) Labor Funding. Funding requests for PY will include base labor cost as of 1 Oct, PY-2 (2008), plus projected inflation rates which will be provided. The rates will reflect the national and locality pay raises, plus agency contributions for employee benefits. In preparing estimates for overtime, analyze the use of overtime to ensure it is prudent and efficient; explore all reasonable alternatives to overtime, such as flexible scheduling; and assure that adequate approval, monitoring, and audit procedures are in place to avoid abuses. Total labor funding requirements includes locality, cost of living increase (COLA), overtime, awards and estimated pay raise.. Costs for Expenses-funded military/uniformed-officers will be included in estimating total labor/personnel-compensation costs. Total labor funding will be fenced and provided for the authorized FTE. Funds remaining due to hire lag can be used to support details and developmental assignments due to unfilled vacancies and costs for the Student Educational Employment Program.

(3) Non-labor Requirements and Funding. Non-labor requirements will be submitted as reflected in Illustration D-2.1. Non-labor requirements are separated into Must Fund and Controllable. Specific guidance on how to budget for non-labor requirements, such as travel, training, AIS costs, will be outlined in the budget data call memorandum.

D-2.2. **Supporting Data.** The PY Expenses Program budget submission will be comprised of requirement build, specific FTE by name and salary, and details on contractural support to include justification by object class as reflected in Illustration D-2-3The Expenses program manager will develop multiple program options based upon OMB and ASA(CW) guidance and field data listed above. These will include a ‘ceiling’ program which will be submitted to reflect no more than the amount needed to maintain “current services” compared to the FY 2008 budget. A second ‘Recommended’ program will be developed to accomplish performance targets over five years.

D-2.3. **Submission Requirements.** Supporting data, described above, will be submitted by electronic mail to CERM-B (Attention: Eloisa Brown) 29 April 08. If there are any problems complying with these submission requirements, contact Mrs. Brown at 202-761-0406, or Gloria Bell at 202-761-1822.

ILLUSTRATION D-2.1

FY Executive Direction & Management (ED&M)
RQMTS Summary ($000)
DETAIL INFO

O/C	TITLE	MSC GE	MSC OMA
11.1	Personnel Comp Full-time Permanent (FTP)	0	
11.3	Personnel Comp Other Than FTP	0	
11.5	Other Personnel Compensation - Overtime	0	
11.5	Other Personnel Compensation - Awards	0	
11.5	Other Personnel Compensation - SES Awards	0	
12.1	Civilian Personnel Benefits	0	
13.0	Benefits for Former Personnel	0	
	Total Civilian Compensation	**0**	
	FTE Authorized Allocation	**60**	**12**
	Other FTE Authorization		
25.0	Military Officer's Pay (Incl BAS/BAQ)	0	
25.0	Military Personnel Benefits	0	
	Total Military Compensation	**0**	
	Total Military Personnel Support		
23.1	SLUC	0	
23.2	Rental Payments to Others (NAD & POD only)	0	
23.3	CEEIS	0	
25.3	UFC Support	0	
25.3	DFAS Payroll Support	0	
25.3	AIS, CEALS	0	
25.3	CFO Audit	0	
25.3	PRIP Payback	0	
25.3	CGO/ACE-IM/IT	0	
25.3	LOG HPO/ULA Support	0	
25.3	CPOC/CPAC Support	0	
25.3	Workman's Compensation	0	
25.3	Health/EAP/AED	0	
25.3	ASBCA	0	
25.3	Seat Management Nationalized	0	
25.3	Command Directed Initiatives	0	
	TOTAL MUST FUNDS	**0**	

MSC:

Contract/Other Support

Object Class	Description	Amount GE	Amount OMA	Amount TOTAL	Comment/Justification
	RENT				
23.1	a. GSA				
23.2	b. Private				
	c. Other (specify)				
	Sub-Total	$0	$0	$0	
25.3	**Corps-to-Corps**				
	Sub-total	$0	$0	$0	
25.3	**Government-to-Government**				
	Sub-Total	$0	$0	$0	
25.3	**Government-to-Non-Government**				
	Sub-total	0	0	0	
	PCS				
21					
22					
25.7					
21					
22					
25.7					
21					
22					
25.7					
	Sub-Total	0	0	0	

ANNEX E
REVOLVING FUND
PLANT REPLACEMENT AND IMPROVEMENT PROGRAM (PRIP)
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ANNEX E

Plant, Revolving Fund
Plant Replacement and Improvement Program (PRIP)

E-1.1. **Purpose and Scope.** This annex provides policy and general procedural guidance for Plant Replacement and Improvement Program (PRIP) development. To provide a uniform approach for program development and justification, the various plant items have been grouped into categories. Guidance for the electronic transmission of automated data for submittal of limited program recommendations is contained in the 1130 series of Engineer Regulations (ERs). Procedures for preparing input, for generating these reports, and for updating data are also included in the ER 1130 series. From time to time, additional detailed guidance will be provided by CERM-B in supplemental memoranda.

E-1.2. **Program Development Concepts.**

a. **Categories.** All plant items should be identified by category. Detailed definitions for the categories and subcategories can be found in Annex G, ER 37-1-29, Financial Administration, Financial Management of Capital Investments. The categories and subcategories authorized for use with this program submission are in Table 3 of the main part of the EC.

b. **Major and Minor Items.** For programming purposes all items of plant will be classified as either major or minor items. Major Items will be further classified as either new or continuing items.

(1) **Major Items.** New Major Items consist of those items which exceed HQUSACE authority and which require submittal through the Assistant Secretary of the Army (CW) to the Office of Management and Budget (OMB) and the Congressional Committees on Appropriations for concurrence. The limit of Chief of Engineers authority is $700,000. Continuing Major Items consist of those acquisitions costing more than $700,000, which were previously submitted to and concurred in by OMB; and authorized by the Congressional committees. An update shall be submitted on all continuing major items with scheduled obligations in FY10. Continuing Major Items with cost increases of 10% or more require re-authorization. Documentation to support the increase will be submitted along with an updated Economic Analysis. In the absence of Congressional action on the current year PRIP budget request, the President's current year program will be used for planning purposes with the assumption that the program request for continuing items and new starts will be enacted by 1 October of the current year. In the case that appropriations are not made by the Congress, but that a continuing resolution is instituted, major item new start projects will not be executed until full year appropriations are enacted.

(2) **Minor Items.** For FY10 minor items are those items which exceed the capitalization threshold of $250,000 but which do not exceed the Chief of Engineers authority level.

E-1.3. **Program and Budget Guidance.** Major Subordinate Command (MSC) Commanders will develop and submit a total PRIP for their command to include district requirements. Tabulation of program requirements will reflect the total MSC program and will show both MSC and district priorities for each item of plant. Each item of plant (major and minor) shall be submitted with full justification. This justification shall be submitted on ENG Form 4613-R for major items and ENG Form 4943-R for minor items via email. In addition, major item new starts proposed for FY 10 shall be submitted in accordance with

ER 37-1-29 and are to be accompanied by economic and affordability analyses**. Cost estimates and obligation plans for continuing projects and projects that are on hold awaiting Congressional authorization should be reviewed and updated annually.** A mid-year review will be held per CERM-B guidance for unfinanced requirements and new major projects that are of an emergency nature or have extraordinary circumstances. **Mid-year submissions that are a result of poor planning or failure to update during the regular yearly budget submission will not be approved for funding until the next yearly budget cycle. Out-of-cycle requests and notifications for project increases of greater than 10% that require Congressional notification and approval must be kept to a minimum.** A five year PRIP plan will be submitted annually, showing the current year, the program year, and the follow- on three out-years using ENG Form 1978-R or an approved electronic Format. The-PRIP plan shall be updated only after the mid-year review at the end of the second fiscal quarter or whenever significant changes occur. A copy of the semiannual update and changes shall be forwarded to CERM-B in accordance with the HQ mid-year review calendar published each fiscal year by CERM-B.

E-1.4. **Submission Requirements and Dates.** See Table 2 of the main part of this EC.

ANNEX F
AUTOMATION PROGRAM
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ANNEX F

Automation Program

F-1.1. **Background.** House Report 103-135, June 17, 1993, accompanying the Energy and Water Development Appropriations Bill, 1994, directs the Corps to "provide separate and distinct data for automation costs" in future program requests. The basis for this request is the Committee's belief that "the cost attributable to the development and implementation of automated programs of the Corps of Engineers is entirely unreasonable." In accordance with this direction, the Civil Works Directorate provides Congress with a display of estimated automation costs with its annual program submissions.

F-1.2. **Program Development Concepts.** For PY (FY10), the Corps will provide a display similar to that of PY-1, organizing CW automation costs according to the Programs for major investments.

a. The Programmatic management of major IT investment enables the Corps to achieve greater efficiencies within these investments. The programs are:

(1) Financial Management Services Program

(2) Asset Management Services Program

(3) Emergency Preparedness and Response Program

(4) Business Management Tools Program

(5) Acquisition Services Program

(6) Science and Engineering Technology Program

(7) Real Estate Management Program

(8) IT Infrastructure and Office Automation Program

b. Additionally, we will distinguish between items proposed for PRIP acquisition (i. e., items supporting more than one project or program and costing more than $250,000), also displayed under the Revolving Fund section of the program; and items costing less than $250,000, and expensed, or acquired using specific study, project or program funds.

F-1.3. **Program and Budget Guidance.** Information Technology Investment Portfolio System (ITIPS) must be maintained up-to-date and reflect your best estimate of what actual requirements will be since it is the data source for the estimate of our automation costs being reported to Congress. The PRIP Five-Year Plan remains primarily a planning tool, but since the data in it is used to prepare our automation costs estimate it is important that it too reflect your best estimate of what actual requirements will be. Justifications to support PY PRIP requirements in plan are to be submitted with the PRIP budget submittal due 1 Jun. Refer to ER 37-1-29 for instructions for preparing, justifying and submitting PRIP budget requirements.

SPECIAL NOTE FOR AUTOMATED ENGINEERING TOOLS (ITIPS classification). The Automated Engineering Tools (AET) classification represents an aggregation of field-level initiatives of individual offices throughout USACE for procurement and support of AIS products in support of assigned technical functions. Nearly three-quarters of this funding item is identified for Computer Aided Design (CAD) and

Geographic Information System (GIS) tools. The remainder includes surveying, mapping, global positioning systems, data management, and remote lock and dam operating systems. AET represents the largest single cost item under the Science and Engineering Technology Program, approximately $40M USACE-wide in PY. Please pay particular attention to the accuracy of this line item in the update of your ITIPS record. We will be utilizing these numbers to better define the magnitude of our Science and Engineering (S&E) tools investments, as part of the ongoing USACE efforts to improve the support of S&E.

F-1.4. **Submission Dates and Requirements.**

a. **Information Technology Investment Portfolio System (ITIPS).** In the case of the ITIPS, which is updated annually as part of the Corps' Capital Planning and Investment Control Process (CPIC), the most important data elements for the Civil Works automation budget are contained in the PY Requirements Tabs (Direct, Site, and PRIP) for development, modernization, operations and support. Although ITIPS is continually available for updating, the Requirements Tabs (for financial data input) are only open during the 1st quarter of the FY to coincide with the start of the CPIC process. Please ensure that the ITIPS is kept up to date and all cost data are entered during the aforementioned update period. (In accordance with ER 25-1-2, the functional proponent has Life Cycle Management of Information Systems (LCMIS) responsibility for any Automated Information System AIS. Although this party may not be responsible for entering data into the ITIPS, it is responsible for the accuracy of the data.).

b. **PRIP Five-Year Plan.** A new PRIP Five-Year Plan must be submitted annually on 31 Jul**.** Please ensure that your annual PRIP Five-Year Plan contains accurate FY10 estimates for Categories 80 (Software) and 90 (Hardware). Refer to ER 37-1-29 for instructions for preparing the PRIP Five-Year Plan and update submission requirements.

ANNEX – G
CONSTRUCTION
CONTINUING AUTHORITIES PROGRAMS
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CAP Criteria Matrix	Spreadsheet	

ANNEX G

Continuing Authorities Program

G-1.1 **General.**

a. The CAP is a group of legislative authorities under which the Secretary of the Army, acting through the Chief of Engineers, is authorized to plan, design, and implement certain types of water resources projects without additional project specific congressional authorization. The purpose of the CAP is to plan and implement projects of limited size, cost, scope, and complexity. Although there is no specific minimum project size or cost, very small projects are not pursued under CAP as they should be implemented by other Federal or non-Federal entities, and large or complex problems are pursued under the specifically authorized programs. The table below lists the CAP authorities and their project purposes.

b. General Requirements. Projects recommended for implementation pursuant to CAP authorities must be justified, formulated, and implemented in accordance with the requirements discussed in ER 1105-2-100. There are two phases for CAP projects.

(1) Feasibility Phase.

(2) Design and Implementation Phase.

CAP AUTHORITIES

AUTHORITY	PROJECT PURPOSE
Section 14, Flood Control Act of 1946, as amended	Stream bank and shoreline erosion protection of public works and non-profit public services
Section 103, River and Harbor Act of 1962, as amended (amends Public Law 79-727)	Beach erosion and hurricane and storm damage reduction
Section 107, River and Harbor Act of 1960, as amended	Navigation improvements
Section 111, River and Harbor Act of 1968, as amended	Shore damage prevention or mitigation caused by Federal navigation projects
Section 204, Water Resources Development Act of 1992, as amended	Regional sediment management
Section 205, Flood Control Act of 1948, as amended	Flood control
Section 206, Water Resources Development Act of 1996, as amended	Aquatic ecosystem restoration
Section 208, Flood Control Act of 1954, as amended (amends Section 2, Flood Control Act of August 28, 1937)	Removal of obstructions, clearing channels for flood control
Section 1135, Water Resources Development Act of 1986, as amended	Project modifications for improvement of the environment

G-2.1 **CAP Budget Restrictions.**

a. Categorical Restrictions. In accordance with ER 1105-2-100, the following categories of work shall not be submitted for budgeting in CAP unless specific legislative direction is provided. If projects of these types are proposed for CAP budgeting, the legislative authority must be specified in the remarks data field.

(1) Study only activities.

(2) Projects to implement or replace any portion of a project specifically authorized by Congress.

(3) Projects that nullify or change an existing condition of non-Federal responsibility required for a project specifically authorized by Congress or implemented under a CAP authority.

(4) Adoption of a non-Federal project for future maintenance at Federal expense.

(5) Restoration of completed Corps projects to their authorized dimensions.

(6) Required non-Federal maintenance at a federally constructed project.

(7) Correction of design deficiencies on another CAP project or a specifically authorized project.

b. Funding Limits.

(1) The cumulative request in increments 1-8 for a project phase will not exceed the total PY obligation capability for that phase. Place any additional amounts in increment 9.

(2) Section 107 projects that do not have ASA Fact Sheet concurrence as required by ER 1105-1-100 will request not more than a cumulative of $100,000 for Feasibility phase only in increments 1-8. No requests for D&I for such projects will be included in increments 1-8.

(3) All requests on Section 107 projects for which the ASA has given a non-concur decision shall be placed in increment 9.

c. Federal Participation Limits. CAP budget submissions shall comply with the following limits given in Table F-2 of ER 1105-2-100, as amended by WRDA 2007.

STATUTORY FEDERAL PARTICIPATION LIMITS

Authority	Per Project Limit ($)	Annual Program Limit ($)
Sec 14	1,500,000	15,000,000
Sec 103	3,000,000	30,000,000
Sec 107	7,000,000	35,000,000
Sec 111	5,000,000	Not Applicable
Sec 204	Not Applicable	15,000,000
Sec 205	7,000,000	55,000,000
Sec 206	5,000,000	50,000,000
Sec 208	500,000	7,500,000
Sec 1135	5,000,000	40,000,000

G-3.1. **Coordination Account.** Coordination account funds are not budgeted against specific projects. Coordination account funds will be prepared by HQ. Coordination activities related to on-going projects are funded in budget activities for that project's funding account.

G-4.1. **Appropriation Account.** CAP projects will be budgeted in accordance with the table shown below. Budget instructions for the applicable account apply. Include sections 111 and 204 when applying the percentage limit given in the O&M instructions. CCS codes to use for sections 111 and 204 are given in the O&M instructions.

Appropriation Account for Budgeting	**CAP Sections**
Construction	14, 103, 107, 205, 206, 208, 1135
O & M	111, 204

G-5.1. **Increments Criteria**. CAP budget items shall be assigned to Increments and ranked using a performance based analysis of incremental benefits to be realized by incremental increases in overall program funding. Put unbudgetable items in increment 9. For each increment, if there are multiple

independent activities or contracts for a given project, then itemize requests for each separable activity or contract. Only items meeting the inclusion criteria may be included in a given increment. Continuing contracts will not be used for CAP. All CAP contracts are to be fully fund. Requests for projects that have previously been terminated or completed and fiscally closed out will be placed in increment 9.

a. Increment 1 – Inclusion and exclusion criteria:

(1) Includes phases of work scheduled to be ongoing from PY-1 for projects listed in the PY-1 President's Budget.

(2) Includes Feasibility phase work for projects funded in or since PY-2 that have FCSA's executed before July 1, 2008.

(3 Includes D&I work for projects funded in or since PY-2 that have Partner Agreements executed before July 1, 2008.

(4) Excludes new phases and items requiring initiation of new phases.

(5) Excludes unbudgetable items, even if such items might otherwise qualify for this increment.

b. Increment 2 – Inclusion and exclusion criteria:

(1) Includes Feasibility phase work for projects that have FCSA's executed before July 1, 2008.

(2) Includes D&I phase work for projects that have Partner Agreements executed before July 1, 2008.

(3) Excludes new phases and items requiring initiation of new phases.

(4) Excludes unbudgetable items, even if such items might otherwise qualify for this increment.

c. Increment 3 – Inclusion and exclusion criteria:

(1) Includes new phases of work for projects listed in the PY-1 President's Budget.

(2)Includes items for phases scheduled to be ongoing from PY-1 that are necessary to sustain an efficient PMP project schedule.

(3)Excludes new phases for projects not listed in the PY-1 President's Budget.

(4) Excludes items which advance the efficient project schedule.

(5) Excludes unbudgetable items, even if such items might otherwise qualify for this increment.

d. Increments 4-8 – Inclusion and exclusion criteria:

(1) Includes items for continuing or new phases to sustain the efficient PMP project schedule.

(2) Includes additional capability amounts for continuing or new phases to enhance or advance the PMP project schedule.

(3) Excludes unbudgetable items, even if such items might otherwise qualify for this increment.

e. Increment 9 – Inclusion and exclusion criteria:

(1) Includes unbudgetable items. For example, Section 107 projects that have received non-concur decisions. Explain in remarks why the item is not budgetable.

(2) Excludes budgetable items.

G-6.1. **Program Ranking Criteria.** All CAP budget items shall be ranked using performance based analysis. District and MSC Rankings shall use consecutive integer numbers beginning with the number one. The entire CAP Program shall be ranked across all CAP Sections. Each item must have a unique ranking number.

G-7.1. **Data Elements and Ranking Method.**

a. General.

(1) All dates are entered in calendar date form as YYYY-MM-DD.
(http://www.iso.org/iso/en/prods-services/popstds/datesandtime.html)

(2) If data is not available or not applicable, then enter NA.

b. Data definitions and ranking method are given in the attached Excel workbook.

FY 2010 CAP Data Elements

May 08 CAP
spreadsheet.xls