

CIVIL WORKS ENVIRONMENTAL ACTION PLAN

FINAL

Prepared for

The Civil Works Environmental Action Plan Steering Committee

Prepared by

Water Resources Support Center
Institute for Water Resources
Policy and Special Studies Division

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Note

The Civil Works Environmental Action Plan (CWEAP) was prepared in 1994 by the Institute for Water Resources for the Corps of Engineers Office of Environmental Policy, Policy Review and Analysis Division. The Final Draft was reviewed by Headquarters; however, it has not receive final approval nor has it been disapproved. It is issued as a Special Study by the Institute for Water Resources, Policy and Special Studies Division for informational and educational purposes only. Cost estimates in the report have no official standing. To obtain the information regarding Civil Works environmental programs, please contact the Office of Environmental Policy.

CIVIL WORKS ENVIRONMENTAL ACTION PLAN

PREFACE

This plan was prepared by the Civil Works Environmental Action Plan (CWEAP) Steering Committee. The Committee was established in response to a requirement in the U. S. Army Environmental Strategy into the 21st Century which calls for preparation of a Civil Works Action Plan as a companion document to the Army Environmental Strategy Action Plan.

The CWEAP Steering Committee, with Dr. William Klesch, Chief, Office of Environmental Policy (CECW-PO), serving as Chairman, was composed of representatives from the Office of Environmental Policy (CECW-PO), Environmental Compliance Branch (CECW-OA), General Engineering Branch (CECW-EP), and Natural Resources Management Branch (CECW-ON). The Committee was augmented by representatives from the Programs Division (CECW-B), the Directorate of Military Programs (CEMP), Environmental Restoration Division (CEMP-RT), Directorate of Real Estate (CERE-MC), Directorate of Logistics Management (CELD-ZE), Directorate of Research and Development (CERD), and Operations Branch (CECW-OM-O). Representatives of field offices who participated in workgroups that developed proposed Action Items included: CENPD-PE-ER, CENPD-CO, CESAD-PD-R, CESAD-CO-R, CENED-PL-IR, CELMV-PD-R, CEMRD-EP-E, CENAD-PL-R, CELMS-OD, CESWF-OD, CENPD-CO, CEORL-OR-R, CENCS-CO-NR, CELMN-LM-F, CEORN-RE-M, CELMK-SA-O, CELMK-OD-RR AND CESAW-PP-E.

The information in the Action Plan was assembled and organized for the CWEAP Steering Committee by the U.S. Army Engineer Institute for Water Resources (CEWRC-IWR-P), Alexandria, Virginia. The staff at IWR who worked under the direction of Dr. Eugene Z. Stakhiv, Chief of the Policy and Special Studies Division, consisted of Ms. Joy Muncy, Mr. Ken Orth, and Mr. Tom Ballentine.

Copies of this document may be obtained from the U. S. Army Engineer Institute for Water Resources, Publications Office (CEWRC-IWR-XO), Telephone Number: (703) 355-3042.

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CIVIL WORKS ENVIRONMENTAL ACTION PLAN

REPORT

AUTHORITY AND PURPOSE: The authority for the Civil Works Environmental Action Plan (CWEAP) is provided in The U. S. Army Environmental Strategy into the 21st Century. The Army Strategy delineates a framework for implementing the environmental activities of the total Army, in both the military and civil sectors of its mission. The Strategy serves as the basis for planning, programming and budgeting decisions for the Army's environmental program. The Strategy is implemented through two action plans: one which addresses Military activities and the other which addresses Civil Works activities, both of which are integral to the Army's environmental stewardship responsibilities as defined as the strategy. Information in this planning document is devoted to the CWEAP.

The Army Strategy's goals, objectives and action plan focuses on four pillars: Compliance, Restoration, Prevention and Conservation. Definitions of the pillars are in Appendix A of this document. Although these definitions are not fully consistent with uses of the terms in the Civil Works program, to avoid confusion, definitions used in the Civil Works Environmental Action Plan are adopted to parallel those used in the Strategy. However, it should be pointed out that the Army definition of Restoration is limited to Hazardous, Toxic and Radioactive Waste, while the term Restoration, as used in the Civil Works organization, is associated with natural resources based programs. In the CWEAP, the Civil Works definition of Restoration actions are labeled Ecological Restoration and entered under the Conservation pillar. Other Civil Works natural and cultural resources actions items fit with both Compliance and Conservation pillars, as defined in the Army Strategy.

The purpose of the CWEAP is to communicate the commitment of the Corps to attaining the vision, goals and objectives of the Army Environmental Strategy into the 21st Century.

GOALS AND OBJECTIVES: The Army's environmental strategy provides direction to attain the environmental vision that the Army will be a national leader in environmental stewardship for present and future generations as an integral part of [its] mission. This statement defines the Army's military and Civil Works leadership role in environmental management: that of demonstrating leadership, being environmental stewards and protecting the environment.

The Army Strategy is depicted as a model which is composed of a number of mutually supporting elements which represent the Army environmental mission and vision. The Army environmental vision statement affirms: "The Army will be a national leader in environmental and natural resource stewardship for present and future generations as an integral part of our mission." The four major components of the structure and the elements to which most of this CWEAP are devoted are four pillars which represent Compliance, Restoration, Prevention and Conservation. The pillars support the Army's stewardship responsibilities and in turn are supported by a foundation whose elements include people, resources, communication and management and organization. The entire model structure stands on the bedrock of shared values which unite the Army and the nation and provide institutional stability.

For each of the four environmental pillars, the Army Strategy prescribes individual Goals, Focus Areas and Objectives. Each Focus Area includes several Objectives, which are steps toward meeting the broad goals, and defines actions needed to achieve the goal and implement the Strategy. These Goals and Objectives are closely linked to those in the Army Strategy, and they provide the basis for this CWEAP which corresponds to Civil Works budgeting and programming cycles.

CRITICAL ELEMENTS FOR SUCCESS In its national defense and civil works missions, the Army manages over 20 million acres of land which is divided about evenly between military and civil activities. Much of the land in civilian usage is open to the general public, providing valuable recreational open space in or near heavily urbanized areas. The Corps Civil Works activities include inland waterway navigation, port and harbor channel management, flood damage prevention, hurricane protection, beach erosion control, hydropower development, fish and wildlife restoration, protection of water quality, cultural and historic resource protection, and operation of recreation facilities at water projects.

Stewardship of this immense, geographically and resource diverse domain provides opportunities for environmental management. It also creates a tremendous responsibility to avoid, and/or minimize environmental degradation of natural and cultural resources. Through the implementation of the plan described in this document, the Corps intends to meet public expectations while continuing its stewardship and management of the natural and cultural assets entrusted to it.

IMPLEMENTING THE PLAN Implementation of the CWEAP will be accomplished by: (1) continuing to pursue on-going environmental activities and (2) by introducing new environmental program elements through the annual budget process. Any of the 65 proposals in the CWEAP that are to be integrated into the Civil Works budget process must be done in accordance with guidance developed annually in preparation of the budget request for Civil Works activities.

There are two keys to successful implementation of the CWEAP. Foremost, a common understanding of the Army Strategy and this Plan by all Corps employees is essential. Everyone must be informed of the importance of implementing the Plan, become environmentally aware of the causes, effects and solutions to environmental degradation and include the environment in every aspect of the Corps business. Broad-based attitudinal, behavioral and structural changes should be encouraged throughout the organization to better achieve the objectives outlined in this plan.

The second key to successful implementation of the CWEAP is effective management. A management process and a mechanism to carry it out should be adopted in order to ensure that the CWEAP is implemented and kept up-to-date as situations change. Building on existing organizational arrangements, this can be done most effectively by incorporating the CWEAP into the Civil Works Project Management System. Treating the Environmental Action Plan like a project would permit regular review of Action Items, as appropriate at monthly Program Review Board meetings at district, division and headquarters levels. In addition, a quarterly report on CWEAP activities and progress should be included in the Command Management Review.

To ensure direct oversight by the senior leadership of the Army, the Army Strategy requires an annual briefing for the Secretary and Chief of Staff of the Army by the Assistant Secretary of the Army (Installations, Logistics and Environment) and the Assistant Secretary of the Army (Civil Works).

The CWEAP Steering Committee, which was given the responsibility of preparing the CWEAP, is permanently established under the direction of the Office of Environmental Policy (CECW-PO).

The Steering Committee is responsible for assisting with periodic modification of the CWEAP. Updated drafts of the CWEAP are to be submitted to the Chief of Engineers Environmental Coordinating Committee through the Office of Environmental Policy. The CWEAP Steering Committee will monitor progress toward completion of Action Items that have been included in the budget, review the list of potential Action Items which were not included in the Plan in FY95 and propose additions to the CWEAP for approval of the Assistant Secretary of the Army (Civil Works). The Committee would promote the formation of partnerships and cooperative efforts with other Federal agencies. In addition, the Plan will need to be reviewed periodically and modified to reflect new environmental challenges, changes in environmental statutes and regulations and guidance from the Office of the Assistant Secretary of the Army for Civil Works.

TABLES OF ACTION ITEMS

The Tables of Action Items in this section contain summaries of information regarding the 65 high priority action items. Tables 1-13 contain information arranged by Objective Areas. This list was adopted in an effort to portray Civil Works environmental activities in a more detailed manner than was possible using only the four pillars which form the primary structure of the Army Environmental Strategy. The Civil Works Environmental Objective Areas are:

1. Compliance: Comply with Environmental Requirements
2. Restoration: Restore Hazardous, Toxic and Radiological Waste Sites
3. Prevention: Minimize Environmental Risks
4. Conservation: Practice Stewardship of Natural and Cultural Resources
5. Conservation: Restore Fish and Wildlife Habitat
6. Conservation: Achieve National Wetland Goals
7. Practice Environmental Engineering
8. Practice Environmental Planning
9. Improve Management and Administrative Practices
10. Improve Techniques for Environmental Analysis
11. Improve Environmental Education
12. Improve Communication and Develop Partnerships
13. Get Out the Environmental Good News

During the process of developing the CWEAP, Field Office Work Groups, the Steering Committee and the Institute for Water Resources identified over 600 possible Action Items, which, if all were implemented, would advance the Corps environmental stewardship. Subsequently, a manageable number of opportunities were designated as High Priority Action Items and have been identified for implementation between now and FY 2000. The list of 66 High Priority Action Items includes 47 items that were developed through the Steering Committee process, one item proposed by the Regulatory Branch and 18 items, which were developed as the recommendations of the Corps Wetlands Action Plan in response to Section 307, Water Resources Development Act, 1990 (Table 6).

**RELATIONSHIP OF ACTION ITEMS TO THE ARMY STRATEGY
AND
TABLES OF ACTION ITEMS**

RELATIONSHIP OF ACTION ITEMS TO THE ARMY STRATEGY

Tables 1-13 contain information about the High Priority Civil Works Action Items arranged in accordance with the four pillars: Compliance, Restoration, Prevention and Conservation. Supporting the environmental pillars are the Foundation Blocks: People, Resources, Communication and Management and Organization. These are the common structural elements which are required to support the environmental pillars. Information on the relationships between the Action Items in the CWEAP and the Foundation Blocks are shown in Table 14.

CWEAP OBJECTIVES

The following statements describe the relationship of the 13 CWEAP Objective Areas to the environmental mission of the Civil Works Directorate. The information in this section is designed to demonstrate the relationship of the action category to its respective pillar or pillars. For ease in demonstrating the relationship, operative words are underlined.

1. COMPLIANCE: COMPLY WITH ENVIRONMENTAL REQUIREMENTS

Compliance action items relate to assuring that all USACE facilities and associated lands (including outgrants) comply with applicable Federal, Department of Defense, Department of the Army, state, tribal and local laws and regulations. In FY 92 the Corps launched a program of environmental assessments at operating projects and facilities throughout USACE (Environmental Review Guide for Operations). The objective is to identify existing operational compliance deficiencies, correct them, and prevent future problems from occurring. The action items under the Compliance Objective continue the assessment program and provide managers and operators with additional tools; guidance, management systems and monitoring and analysis processes, to further improve the Corps compliance posture and enhance its institutional environmental ethic.

2. RESTORATION: RESTORATION OF HAZARDOUS, TOXIC AND RADIOACTIVE WASTE SITES

In the planning, design, construction and maintenance of the Corps of Engineers water resources development program, the Corps is required to comply with many environmental statutes, including the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), commonly referred to as "Superfund". "Superfund" establishes guidelines for the liability, compensation and clean-up for toxic substances, pollution and other forms of environmental contamination. As a major command of the Army, the Corps is responsible for the identification, development of remediation plans and implementation of HTRW restoration activities at projects it operates and maintains. Further, the Corps also assists local sponsors in the identification and development of remediation plans of HTRW contaminated lands for proposed Civil Works projects.

3. PREVENTION: MINIMIZE ENVIRONMENTAL RISKS

Environmental and public health protection, a paramount concern to the Corps mission, can be achieved by preventing or minimizing any exposure to the deleterious effects of materials utilized or generated during construction, operation and maintenance of Civil Works projects. Protection can best be achieved by systematically evaluating and reinforcing Corps guidance to insure pollution prevention efforts. Additionally, potential risks can be reduced by assessing the associated risk with possible pollution contamination of project areas and taking appropriate mitigating measures when such risks are unacceptable.

4. CONSERVATION: PRACTICE STEWARDSHIP OF NATURAL AND CULTURAL RESOURCES

The Corps is responsible for the conservation and management of natural resources including forests and woodlands, fish and wildlife, range and grasslands, wetlands and soils, as well as cultural resources. As provided in various sections of the Forest Cover Act, the Endangered Species Act, National Environmental Policy Act, and other environmental statutes, the Corps is tasked with responsibly managing its lands and waters to ensure long term resource use and resource protection.

5. CONSERVATION: RESTORE FISH AND WILDLIFE

Maintaining and restoring the health of the environment, where it has been degraded, is an important goal of the President. A significant part of the Corps response to the President's goal has been the establishment of fish and wildlife restoration as a priority project output for water resources projects. Additionally, there has been recent, heavy emphasis placed upon watershed and ecosystem restoration planning and subsequent implementation in which the Corps water resources programs are likely to play a significant role. Restoration in this context actually deals with returning damaged ecosystems to some prior historic condition and then conserving and preserving these environmental resources through responsible management and protection to ensure long-term productivity. Fish and wildlife restoration measures may be implemented under the authority of Section 1135 of the Water Resources Development Act of 1986, for the modifications of structures and operations for existing projects. New projects may also be developed through feasibility investigations, fish and wildlife restoration opportunities can be examined where the degradation was caused, at least in part, by an existing water resources project or where the restoration could be more effectively carried out in conjunction with a Corps project.

6. CONSERVATION: ACHIEVE NATIONAL WETLAND GOALS

The President has advocated that the Federal government protect and preserve wetlands by adopting a national goal of no net loss of wetlands in the short-term and an overall net gain in the country's wetland resources in the long-term. The Corps is committed to ensure that its water resources development program activities are conducted in a manner consistent with sound environmental principles and contribute to the attainment of the national wetland goals. Section 307(a) of the Water Resources Development Act of 1990 establishes these same wetland goals as part of the Corps' water resources development program. In response to this legislation, the Corps has developed a Wetland Action Plan which includes numerous recommendations regarding the wetland restoration authorities and opportunities available with the water resources program. These recommendations have been incorporated in their entirety into this action plan, thereby providing a comprehensive examination of wetland conservation activities potentially to be undertaken.

7. PRACTICE ENVIRONMENTAL ENGINEERING

The Chief of Engineers recognized the importance of applying sound environmental engineering principles in all stages of project planning, design, construction, operation and maintenance for Civil Works projects. This objective sets forth positive actions necessary to establish environmental engineering practices and environmental ethics into Civil Works.

8. PRACTICE ENVIRONMENTAL PLANNING

As mentioned above, there has been recent, heavy emphasis placed upon watershed and ecosystem restoration planning and subsequent implementation in which the Corps water resources programs are likely to play a significant role. The basis for this emphasis is that environmental resources play a major role in contributing to the economic well being of the country. Because of the dependence of our economic well being upon healthy and productive environmental resources, the proper management of watersheds and ecosystems is to provide the necessary balance of development and resource conservation and sustainability. To this end, new environmental planning guidance based upon Corps experiences with watershed analysis is being developed in an effort to place the water resources program into better position of providing relevant solutions to contemporary problems.

9. IMPROVE MANAGEMENT AND ADMINISTRATIVE PRACTICES

As the water resources program of the Corps evolves into the 21st century, it is important that the changing priorities of society become woven into the fabric of this program. Today environment is one of the principal new threads. Environmental consideration, however, means more than just fish and wildlife restoration activities or compliance with the numerous environmental statutes. Environmental consideration implies an ethic, one which is bone deep - one that obliges us to examine all our activities and behavior to determine if there are changes which individual or organizations can make which would reduce any negative impacts upon the environment and sustain, preserve and/or conserve these vital resources, e.g., examining the material procurement process to determine if environmentally compatible materials are being used by contractors; use of alternatively fueled vehicles in motor pools; increased use of recycled materials.

10. IMPROVE TECHNIQUES FOR ENVIRONMENTAL ANALYSIS

In response to changing societal demands, the Corps water resources program is moving further into environmental restoration activities, both on new and on existing projects, e.g., Kissimmee River Restoration. As more and more communities and their Congressional representatives realize the capabilities and opportunities available for this type of cost shared environmental restoration, the Corps can expect to receive more proposals. However, the number of environmental restoration proposals is likely to exceed the available financial resources, thus some type of analytical process will be required to critically examine and determine which environmental restoration proposals will generate the greatest environmental benefits; which address critical regional needs that, in turn, address national needs; how should the volumes of information be efficiently sorted in order to make informed and intelligent decisions regarding these proposals, etc. Improving the manner in which the necessary analysis are conducted will ensure that the environmental resources of today will be sustained for future generations.

11. IMPROVE ENVIRONMENTAL EDUCATION

There is no substitute for a competent work force. One of the elements that significantly contributes to such a work force is the ability to train it to achieve the goals of the organization. As Corps responsibilities grow in the area of environmental stewardship from one of compliance to one of taking a proactive position and seeking environmental opportunities beyond compliance, it is important to recognize that the workforce be suitably trained in the necessary tools and techniques to do the job expected of them. Further, beyond the immediate Corps workforce, the Corps has a responsibility to work closely with our partners and with universities to let them know the type of graduate that is expected in the real world - graduates who have training that will be suitable to achieving the Corps goals.

12. IMPROVE COMMUNICATIONS AND DEVELOP PARTNERSHIPS

The likelihood of significantly increased Federal funds for environmental projects is remote. A more likely possibility is the reprogramming of existing funding levels within agencies to address high priority issues, many which will be environmentally oriented. One way of addressing limited financial resources is to leverage the funds of several organizations and focus upon mutually important objectives, thereby providing more financial resources to meet the objective than any single agency can do alone. To this end, the concept of partnering holds the promise of allowing the limited budgets of several agencies to be combined in innovative partnership arrangements allowing collaborative solutions to common problems. Further, partnering also promotes improved communications among the partners as they seek common ground and objectives, i.e., improved natural resource productivity and preservation combined with economic development.

13. GET OUT THE ENVIRONMENTAL GOOD NEWS

The Corps has numerous good news stories about its abilities to address significant regional and national environmental problems; however, it has only recently been recognized that publicizing them would be in the best interests of the organization. It is in the Corps interest, as these projects are relevant to today's society and relevant projects attract and help to retain a desirable workforce. Further, by recognition of the accomplishments of those employees who have worked on environmental projects, these projects become models upon which to pattern future activities. This behavior leads to the further development of a strong environmental ethic within the agency and leads to improved and responsive projects and activities.

**TABLE 1
TABLE OF ACTION ITEMS
CIVIL WORKS ENVIRONMENTAL ACTION PLAN
COMPLIANCE WITH ENVIRONMENTAL REQUIREMENTS**

ACTION ITEMS	AUTHORITY	RESPONSIBLE OFFICES		RESOURCES REQUIRED	
		PROPONENT	PARTNERS	FUNDING (\$1,000)	DURATION
1.1 - Continue and expand the Environmental Review Guide for Operations (ERGO) and ECAS assessment process to ensure environmental compliance with Federal, state, and local regulations and to operational sites and process, floating plant and other appropriate activities.	Existing Authority	CECW-OA CECW-ON	Various HQ Offices.	FY95 \$1,500 FY96 \$3,000 FY97 \$3,000 FY98 \$3,000 FY99 \$3,000 FY00 \$3,000 O&M	CONTINUOUS
1.2 - Develop comprehensive environmental compliance guidance documents for Civil-funded projects and facilities.	Existing Authority	CECW-OA	Various HQ Offices.	FY96 \$200 GE	1 YEAR NEW FUNDS
1.3 - Develop an environmental compliance monitoring and analysis process with capabilities for tracking deficiencies and violations.	Existing Authority	CECW-OA	CECC, CEHR, CELD, CERD, CESO, ODEP, USEPA.	FY96 \$500 FY97 \$ 50 FY98 \$ 50 FY99 \$ 25 FY00 \$ 25 GE	5 YEARS NEW FUNDS
1.4 - Develop a management system for complete control of HTRW. Develop a hazardous, toxic, and radiological materials management system from acquisition through storage, handling, use, reuse, recycling and final disposition.	Existing Authority	CECW-OA	CECC, CEHR, CELD, CERD, CESO, ODEP, USEPA	FY96 \$500 FY97 \$120 FY98 \$120 FY99 \$ 50 FY00 \$ 50 GE	5 YEARS NEW FUNDS

COMMENTS: 1.1 - ERGO is on on-going Civil Works Initiative.
1.2 - AR 200-1 currently exempts Civil Work.
1.3 - Automated systems will be developed in conjunction with the Defense Corporate Information Management (DECIM) program.
1.4 - This initiative will dovetail with pollution prevention activities.

**TABLE 1A
TABLE OF ACTION ITEMS
CIVIL WORKS ENVIRONMENTAL ACTION PLAN
COMPLIANCE WITH ENVIRONMENTAL REQUIREMENTS**

ACTION ITEMS	PRODUCT	PROGRESS INDICATOR	BENEFITS
<p>1.1 - Continue and expand the Environmental Review Guide for Operations (ERGO) and ECAS assessment process to ensure environmental compliance with Federal, state, and local regulations and to operational sites and process, floating plant and other appropriate activities.</p>	<p>Project and facility compliance assessments and corrective action plans.</p>	<p>ERGO Assessments conducted on a continuous cycle.</p>	<p>Low number of violation of environmental regulations at sites with completed environmental assessments and implemented corrective action plans.</p>
<p>1.2 - Develop comprehensive environmental compliance guidance.</p>	<p>Environmental Compliance integrated in all relevant guidance.</p>	<p>100% complete.</p>	<p>Improved consistency in management verified by EIG inspections.</p>
<p>1.3 - Develop an environmental compliance monitoring and analysis process with capabilities for tracking deficiencies and violations.</p>	<p>Project/facility environmental monitoring system developed with deficiencies and violations tracked.</p>	<p>100% Compliance Tracking System developed for FY95.</p>	<p>Reduced backlog of out-of-compliance Class I deficiencies, and low number of NOV's.</p>
<p>1.4 - Develop a management system for complete control of HTRW. Develop a hazardous, toxic, and radiological materials, management system from acquisition through storage, handling, use, reuse, recycling and final disposition.</p>	<p>HTRW management system developed.</p>	<p>System in place.</p>	<p>Reduction in overall HTRW use due to better management and oversight.</p>

**TABLE 2
TABLE OF ACTION ITEMS
CIVIL WORKS ENVIRONMENTAL ACTION PLAN
RESTORATION OF HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE SITES**

ACTION ITEMS	AUTHORITY	RESPONSIBLE OFFICES		RESOURCES REQUIRED	
		PROPONENT	PARTNERS	FUNDING (\$1,000)	DURATION
2.1 - Develop guidance for restoration activities at existing Corps projects and facilities to include preparation of an inventory; criteria for prioritizing sites and methods of remediation; preparation, negotiation, and approvals of environmental agreements; and mechanisms for fully utilizing the Military Environmental Programs expertise (MCX/HTRW Design Districts).	Existing Authority	CECW-OA CECW-PO	CEMP-RT, USACE field HTRW MCX.	FY96 \$500 GE	1 YEAR NEW FUNDS
2.2 - Assess the magnitude of Civil Works restoration problems.	Existing Authority: Existing P.L. (CERCLA)	CECW-PO CECW-O	CEMP-RT	FY96 \$2,000 FY97 \$1,500 FY98 \$1,500 FY99 \$1,500 O&M	4 YEARS NEW FUNDS
2.3 - Implement Civil Works restoration program - "Worst First" basis.	Existing P.L. (CERCLA 1980).	CECW-O	CEMP-RT, CERE, field HTRW Design Centers.	FY96 \$1,500 FY97 \$6,000 FY98 \$6,000 FY99 \$6,000 FY00 \$1,500 O&M	5 YEARS NEW FUNDS

COMMENTS: 2.1 - Special requirements for FTE's and expertise; citations for specific authorities; impediments to success; etc.
2.2 - No Comments.
2.3 - Site clean-up will be very expensive in most cases. This will be a major problem in light of budget constraints.

**TABLE 2A
TABLE OF ACTION ITEMS
CIVIL WORKS ENVIRONMENTAL ACTION PLAN
RESTORATION OF HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE SITES**

ACTION ITEMS	PRODUCT	PROGRESS INDICATOR	BENEFITS
<p>2.1 - Develop guidance for restoration activities at existing Corps projects and facilities to include preparation of an inventory; criteria for prioritizing sites and methods of remediation; preparation, negotiation, and approvals of environmental agreements; and mechanisms for fully utilizing the Military Environmental Programs expertise.</p>	<p>Guidance for restoration activities at existing Corps projects and facilities, based DERP or FUDS models. Guidance on preparation, negotiation, and approval of environmental agreements. Mechanisms for making the maximum use of expertise developed by Military Environmental Program.</p>	<p>Percent of inventories computed. Issuance of appropriate guidance.</p>	<p>Cost effective identification and restoration of contaminated (HTRW) sites at Corps projects and facilities.</p>
<p>2.2 - Assess the magnitude of Civil Works restoration problems.</p>	<p>A report on the status and magnitude of Civil Works restoration problems, to include problems identified in planning, preconstruction, engineering, and design, construction, and operations/maintenance phases.</p>	<p>Percent of inventories completed.</p>	<p>Assessment of the magnitude and status of restoration problems will facilitate and speed up development of plans and a corporate approach to restoring contaminated sites.</p>
<p>2.3 - Develop plans and specifications to clean-up and restore contaminated sites identified in the assessment of restoration problems at existing Civil Works projects.</p>	<p>Clean-up and restoration plans for specific Civil Works sites that are contaminated.</p>	<p>Percent of specific sites that have implemented and completed clean-up.</p>	<p>Contaminated sites and associated natural resources will be cleaned up and restored to productive environmental uses.</p>

**TABLE 3
TABLE OF ACTION ITEMS
CIVIL WORKS ENVIRONMENTAL ACTION PLAN
PREVENTION OF ENVIRONMENTAL RISK**

ACTION ITEMS	AUTHORITY	RESPONSIBLE OFFICES		RESOURCES REQUIRED	
		PROPONENT	PARTNERS	FUNDING (\$1,000)	DURATION
<p>3.1 - Review regulations, engineering manuals and guide specifications to determine which ones can be used to strengthen pollution prevention activities.</p> <p>(See Action Items 7.1-7.6).</p>	Existing Authority, i.e., ASA(CW)'s discretionary authority which established the Civil Works Guidance Update Program (CWGUP).	CECW-EP	CWEAP Steering Committee.	PRIOR YR. \$225 FY95 \$470 FY96 \$470 FY97 \$460 FY98 \$400 FY99 \$400 GE	5 YEARS CONT. FUNDS
<p>3.2 - Develop risk assessment processes and conduct technical risk assessments at existing facilities.</p>	Existing Authority, ASA(CW) discretionary authority.	CECW-O	Engineering Divisions Corpwide; Operating Divisions, Districts and Project Offices.	FY96 \$410 GE FY97 \$210 FY98 \$210 FY99 \$210 FY00 \$210 O&M	5 YEARS NEW FUNDS
<p>3.3 - Develop and implement an HTRW pollution prevention program for operating facilities.</p>	Existing Authority	CECW-O	Engineering Divisions Corpwide; Operating Divisions, Districts and Project Offices. Non-profit engineering affiliated groups such as CLEANSITES, ASTM, ASCE, etc. CELD-ZE	FY96 \$ 4 FY97 \$ 4 FY98 \$ 60 FY99 \$ 60 CG	4 YEARS NEW FUNDS

**COMMENTS: 3.1 - Will be budgeted under CWGUP.
3.2 - Interdisciplinary expertise necessary.
3.3 - PAO involvement to spread the good news is mandatory.**

**TABLE 3A
TABLE OF ACTION ITEMS
CIVIL WORKS ENVIRONMENTAL ACTION PLAN
PREVENTION OF ENVIRONMENTAL RISKS**

ACTION ITEMS	PRODUCT	PROGRESS INDICATOR	BENEFITS
<p>3.1 - Review regulations, engineering manuals and guide specifications to determine which ones can be used to strengthen pollution prevention activities.</p> <p><i>(See Action Items 7.1-7.6).</i></p>	<p>Phase I: Prepared and prioritized SOWs. Identify candidates for implementing media specific pollution control programs.</p> <p>Phase II: Execute SOWs to prepare field guidance and implement media specific pollution control programs.</p>	<p>Number of SOW prepared. Number of SOW implemented.</p>	<p>R&D efforts should be initiated to quantify environmental benefits resulting from the pollution prevention actions. This will be the first step in ensuring a cost effective expenditure of monies.</p>
<p>3.2 - Develop risk assessment processes and conduct technical risk assessments at existing facilities.</p>	<p>Phase I: Develop process and train.</p> <p>Phase II: Educate District/Division Project staff.</p> <p>Phase III: FY96-FY99 - Conduct risk surveys on prioritized basis with follow-up documentation submitted to higher authority.</p>	<p>Number of employees trained. Number of risk surveys developed and implemented.</p>	<p>Through approach training and implementation, the environmental risk associated with operational practices could be reduced.</p>
<p>3.3 - Develop and implement a HTRW minimization program for operating facilities.</p>	<p>Phase I: FY96 - Develop program and survey the universe of pollutants generated by the USACE(CW).</p> <p>Phase II: FY97 - Implement cost effective prevention program.</p> <p>Phase III: FY98 - Establish public-private partnership.</p> <p>Phase IV: FY99-FY00 - Evaluate effectiveness.</p>	<p>Program indicators should be developed for each phase.</p> <p>Phase I: Number of sites and nature of pollutants identities.</p> <p>Phase II: Number/amount of potentially recyclable pollutants/project/etc.</p> <p>Phase III: Numbers of partnerships.</p> <p>Phase IV: Number of programs implemented.</p>	<p>R&D efforts should be initiated to quantify environmental benefits resulting from the pollution prevention actions. This will be the first step in ensuring a cost effective expenditure of monies.</p>

**TABLE 4
TABLE OF ACTION ITEMS
CIVIL WORKS ENVIRONMENTAL ACTION PLAN
CONSERVATION AND STEWARDSHIP OF NATURAL AND CULTURAL RESOURCES**

ACTION ITEMS	AUTHORITY	RESPONSIBLE OFFICES		RESOURCES REQUIRED	
		PROPONENT	PARTNERS	FUNDING (\$1,000)	DURATION
4.1 - Develop and implement a Corps natural resources management mission statement which specifies multiple-use management and contains a clear definition of Corps stewardship responsibilities.	Existing Authority	CECW-ON	CECC, CECW-OA, CECW-OM, CECW-PA, CECW-PO, CEPA-I, CERM-F; Other Federal and state resources agencies, non-Federal conservation agencies.	PRIOR YR. \$52,000 FY96 \$55,000 FY97 \$61,000 FY98 \$63,000 FY99 \$65,000 FY00 \$67,000 O&M	Continuing Program and New Funds
4.2 - Effectively develop and implement the Endangered Species Act across all programs and activities.	Existing Authority, Endangered Species Act of 1973, as amended.	CECW-ON CECW-PO	CECW-ON, CECW-PO, F&WS, NMFS, USFS, BOF, State natural resources agencies and conservation organizations such as the Nature Conservancy and the Wildlife Management Institute, others such as the Bonneville Power Administration.	PRIOR YR. \$2,000 FY96 \$2,000 FY97 \$2,000 FY98 \$2,000 FY99 \$5,000 FY00 \$5,000 O&M	Continuing Program
4.3 - Examine existing agency policy and directives, and revise the Natural Resources Management regulation (ER 1130-2-400) to better address relevant legislative mandates and authorities, and incorporate the appropriate action items of this Action Plan.	Existing Authority	CECW-ON	CECW-PA, CECW-PO	N/A	N/A
4.4 - Continue to provide Environmental Education to the public at CW water resources projects.	Existing Authority	CECW-ON	NONE	PRIOR YR. \$100 FY96 \$100 FY97 \$100 FY98 \$100 FY99 \$100 FY00 \$100 O&M	Continuing Program

TABLE 4
TABLE OF ACTION ITEMS
CIVIL WORKS ENVIRONMENTAL ACTION PLAN
CONSERVATION AND STEWARDSHIP OF NATURAL AND CULTURAL RESOURCES

COMMENTS: 4.1 - New Funds \$1.0M in FY96; \$3.0M in FY97.

4.2 - a. Inventory for endangered/threatened species would be accomplished under action item #4.1, which includes inventory of natural resources on Corps properties; b. Funding beginning FY96 through FY99 includes coordination, planning, design and some operating dollars. It is anticipated that management funds (\$2M in FYs 96-98, and \$5M in FYs 99-00, redirected from existing Natural Resources Management budget) will be necessary to implement appropriate recommendations of recovery plans and to begin to implement management strategies which will contribute to the avoidance of listing new species. Funds redirected from Action Item 4.1.

4.3 - Funded in FY94. Anticipate completing this action in 1995.

4.4 - No Comments.

**TABLE 4A
TABLE OF ACTION ITEMS
CIVIL WORKS ENVIRONMENTAL ACTION PLAN
CONSERVATION AND STEWARDSHIP OF NATURAL AND CULTURAL RESOURCES**

ACTION ITEMS	PRODUCT	PROGRESS INDICATOR	BENEFITS
<p>4.1 - Develop and implement a Corps natural resources management mission statement which species multiple-use management and contains a clear definition of Corps stewardship responsibilities.</p>	<p>Mission statement which specifies multi-use management and contains clear definition of Corps stewardship responsibilities. Completed inventories of natural resources on Corps properties to categorize existing resources and opportunities. Completed OMPs using natural resources inventories to better prioritize management strategies.</p>	<p>Mission statement, mission statement incorporated into Corps guidance, inventories completed, OMPs completed using inventory.</p>	<p>Proper stewardship of lands and waters entrusted to the Corps (e.g., reduced sedimentation, increased water quality).</p>
<p>4.2 - Effectively develop and implement the Endangered Species Act across all programs and activities.</p>	<p>Inventory of threatened and endangered species. Management plans incorporated into OMPs. Completed actions as described in the OMP.</p>	<p>Inventory of threatened and endangered species, OMPs including endangered and threatened species management plans, completed actions as described in OMPs.</p>	<p>Increased protected habitat for endangered and threatened species. Creation of a biologically diverse land base under the administration of the Corps.</p>
<p>4.3 - Examine existing agency policy and directives, and revise the Natural Resources Management regulation (ER 1130-2-400) to better address relevant legislative mandates and authorities, and incorporate the appropriate action items of this Action Plan.</p>	<p>Revised ER 1130-2-400.</p>	<p>Revised ER 1130-2-400.</p>	<p>Better management of those natural and cultural resources entrusted to the Corps and hence to the citizens of the U.S. Clearer MSC understanding of Corps NRM policy direction.</p>
<p>4.4 - Continue to provide Environmental Education to the public at CW water resources projects.</p>	<p>Interpretive Services and Outreach Program.</p>	<p>Revised regulations and guidance documents. Improved interpretive and public outreach programs established and implemented at operating projects.</p>	<p>Better environmentally informed public will result in better environmental projects and environmental input into traditional Corps projects.</p>

**TABLE 5
TABLE OF ACTION ITEMS
CIVIL WORKS ENVIRONMENTAL ACTION PLAN
CONSERVATION TO RESTORE FISH AND WILDLIFE HABITAT**

ACTION ITEMS	AUTHORITY	RESPONSIBLE OFFICES		RESOURCES REQUIRED	
		PROPONENT	PARTNERS	FUNDING (\$1,000)	DURATION
5.1 - Continue to seek new opportunities to modify existing Corps water resources projects to restore fish and wildlife habitat.	Existing Authority, Section 1135, WRDA '86.	CECW-PO	CECW-OD, CECW-OM, CECW-ON, other Federal and State resource agencies, non-Federal cost-sharing partners.	FY95 \$ 5,000 FY96 \$10,000 FY97 \$10,000 FY98 \$10,000 FY99 \$10,000 CG	Continuing Program
5.2 - Seek to identify, study and implement new opportunities to restore ecosystems that were degraded, at least in part, by an existing Corps water resources project or that could be more effectively carried out in conjunction with an existing Corps project. (New start projects).	Existing Authority	CECW-PO	Other Federal and State resources agencies, non-Federal cost-sharing partners.	FY95 \$ 0 FY96 \$ 2,500 FY97 \$ 5,000 FY98 \$10,000 FY99 \$10,000 GI	Continuing Program New Funds
5.3 - Continue to seek opportunities to restore and enhance fish and wildlife habitat on the Upper Mississippi River System in conjunction with the Environmental Management Program.	Existing Authority, Section 1103 WRDA '86, as amended.	CECW-PO	CECW-ON, USF&WS, State resources agencies, non-Federal cost-sharing partners.	FY95 \$19,455 FY96 \$19,455 FY97 \$19,455 FY98 \$19,455 FY99 \$19,455 CG	Continuing Program

**TABLE 5
TABLE OF ACTION ITEMS
CIVIL WORKS ENVIRONMENTAL ACTION PLAN
CONSERVATION TO RESTORE FISH AND WILDLIFE HABITAT**

ACTION ITEMS	AUTHORITY	RESPONSIBLE OFFICES		RESOURCES REQUIRED	
		PROPONENT	PARTNERS	FUNDING (\$1,000)	DURATION
5.4 - Project development to contribute to the goals of interagency cooperative environmental programs (e.g., Coastal America, National Estuary Program, Gulf of Mexico, North American Waterfowl Management Plan) coordination.	Existing Authority, Coordination and Cooperation with other agencies.	CECW-PO CECW-ON	USACE MSC and Districts, other Federal and State resource agencies, non-Federal cost-sharing partners.	FY95 \$1,000 FY96 \$1,000 FY97 \$1,000 FY98 \$1,000 FY99 \$1,000 GI	Continuing Program
5.5 - Identify authorized fish and wildlife habitat mitigation activities at completed water resources projects that have not been implemented consistent with current cost sharing practices.	Existing Authority, WRDAs; prior River and Harbor Acts, other specific authorizing legislation.	CECW-PO CECW-O	CECW-L, CECW-PC, CECW-PE, CECW-PW, USF&WS, NMFS, COE MSC and District Commands, non-Federal cost-sharing partners.		

COMMENTS: 5.1 - This is an ongoing program, initially funded in FY91. It is carried out by environmental/planning personnel in the Districts - no additional FTEs are needed unless there is a significant reduction in force of field environmental/planning staff. The principal detriment to the program has been lack of non-Federal cost-sharing partners; some field offices say that the extensive Washington oversight and reporting requirements have discouraged participation.

5.2 - This is a high priority program in the Civil Works General Investigation Program. It is carried out by environmental/planning personnel in the Districts - no additional FTEs are needed unless there is a significant reduction in force of field environmental/planning staff. A major detriment to pursuing new start fish and wildlife restoration projects has been lack of non-Federal cost-sharing partners. Expenditures anticipated in CG account in out years as construction begins; anticipated beyond FY2000.

5.3 - This is an ongoing program that has been funded since 1987. The principal constraint to identifying opportunities along the Upper Mississippi River is that habitat projects are restricted to publicly-owned lands.

5.4 - Planning and initial coordination for these programmatic, interagency cooperative efforts are funded with General Investigation, O&M for North American Waterfowl Management Plan, Coordination funds; project construction by the Corps will be carried out under existing authorities and appropriations (e.g., Section 1135, O&M General, etc). Efforts have been primarily in coastal areas, with expansion to interior; funds should increase.

5.5 - The field (MSC and District Commands) will need to report to HQUSACE on the authorized mitigation for completed projects that has not been carried out, with an estimate of costs to complete the mitigation and O&M.

**TABLE 5A
TABLE OF ACTION ITEMS
CIVIL WORKS ENVIRONMENTAL ACTION PLAN
CONSERVATION TO RESTORE FISH AND WILDLIFE HABITAT**

ACTION ITEMS	PRODUCT	PROGRESS INDICATOR	BENEFITS
5.1 - Continue to seek new opportunities to modify existing Corps water resources projects to restore fish and wildlife habitat.	Restored fish and/or wildlife habitat that was previously degraded, at least in part, by a Corps project.	Number of project studies initiated, under way; number of projects under construction.	Units of land or water (e.g., acres, surface acres, stream miles) that were improved or restored; number of "habitat units" gained over the existing condition.
5.2 - Seek to identify, study and implement new opportunities to restore fish and wildlife habitats that were degraded, at least in part, by an existing Corps water resources project or that could be more effectively carried out in conjunction with an existing Corps project. (New start projects).	Restored fish and/or wildlife habitat that was previously degraded, at least in part, by a Corps project.	Number of new start reconnaissance reports and recons. that go to feasibility; number of feasibility reports that result in constructed projects.	Units of land or water (e.g., acres, surface acres, stream miles) that were improved or restored; number of "habitat units" gained over the existing conditions.
5.3 - Continue to seek opportunities to restore and enhance fish and wildlife habitat on the Upper Mississippi River System in conjunction with the Environmental Management Program.	Restored or enhanced fish and wildlife habitat along the Upper Mississippi River.	Number of projects under study, design, or construction.	Units of land or water (e.g., acres, surface acres) that were enhanced or restored; number of "habitat units" gained over the existing condition.
5.4 - Contribute to the goals of interagency cooperative environmental programs, (e.g., Coastal America, North American Waterfowl Management Plan, National Estuary Program, Gulf of Mexico).	Plans and project proposals to protect and restore ecosystems and biodiversity.	Number of projects under study; number of projects under construction.	Fish and wildlife habitat, including water quality, will be protected or restored under these programs through an ecosystem approach with a watershed focus.
5.5 - Identify authorized fish and wildlife habitat mitigation activities at completed water resources projects.	A report on needs for restored (mitigate) fish and wildlife habitats and resources that were previously destroyed or degraded by Corps projects that have already been constructed.	Amount of remaining authorized fish and wildlife habitat mitigation that needs to be implemented as a percent of initial amount.	"Habitat units" restored or acres of fish and/or wildlife habitat replaced, compared to a with and without project analysis.

**TABLE 6
TABLE OF ACTION ITEMS
CIVIL WORKS ENVIRONMENTAL ACTION PLAN
CONSERVATION TO ACHIEVE WETLAND GOALS**

ACTION ITEMS	AUTHORITY	RESPONSIBLE OFFICES		RESOURCES REQUIRED	
		PROPONENT	PARTNERS	FUNDING (\$1,000)	DURATION
6.1 - Implement the Corps Wetlands Action Plan developed in response to Section 307, WRDA '90.	Existing Authority Section 307(a)(3) WRDA '90.	CECW-PO CECW-ON CECW-OD	USACE offices include Civil Works (policy and planning, operations/natural resources management, and engineering), R&D, RE Directories, and the PAO. The Federal and State resource agencies and non-Federal cost-sharing entities would also be partners.	PR YRS. \$32,000 (GI, CG, O&M) FY96 \$800 FY97 \$800 FY98 \$100 O&M	Continuing Program FY96-FY98 NEW FUNDS
6.2 - Use dredged material beneficially to restore and create wetlands and other aquatic habitat.	Existing Authority, Section 204, WRDA '92.	CECW-PO CECW-PA	CECW-OD	PRIOR YR. \$3,000 FY95 \$ 2,500 FY96 \$10,000 FY97 \$12,000 FY98 \$12,000 FY99 \$15,000 CG	5 YEARS CONT. PROG.
6.3 - Conduct wetlands research.	Existing Authority	CECW-P CECW-O	CERD-C	FY95 \$ 900 FY96 \$4,000 FY97 \$4,000 FY98 \$4,000 FY99 \$4,000 GI	5 YEARS NEW FUNDS
6.4 - Improve the efficiency and responsiveness of the Regulatory Program to the President's Wetlands Plan.	Rivers & Harbors Act '99, Sect. 9,10, & 13. Federal Water Pollution Control Act '72 as amended, Sect. 404. Marine Protection, Research and Sanctuaries Act '72, Sect. 103	CECW-OR	CECW-AO, CECW-P, CECW-O, CECW-E	FY95 \$110,000 FY96 \$114,000 FY97 \$118,000 FY98 \$120,000 FY99 \$125,000 O&M	CONT. FUNDING

**TABLE 6
TABLE OF ACTION ITEMS
CIVIL WORKS ENVIRONMENTAL ACTION PLAN
CONSERVATION TO ACHIEVE WETLAND GOALS**

COMMENTS: 6.1 - Figures shown in FUNDING are additional work under WAP. Included in other CWEAP Action Items are the following: FY95 (\$10,000), FY96 (\$14,000), FY97 (\$16,500), FY98 (\$16,000), and FY99 (\$19,000).

6.2 - No Comments.

6.3 - No Comments.

6.4 - These figures use the FY95 appropriation as a base and are updated based on an assumed inflation rate of 4% per year. For purposes of the CWEAP, funding is shown as O&M; however, Regulatory is funded by separate appropriation.

**TABLE 6A
TABLE OF ACTION ITEMS
CIVIL WORKS ENVIRONMENTAL ACTION PLAN
CONSERVATION TO ACHIEVE NATIONAL WETLANDS GOALS**

ACTION ITEMS	PRODUCT	PROGRESS INDICATOR	BENEFITS
6.1 - Implement the Corps Wetlands Action Plan developed in response to Section 307, Water Resources Development Act of 1990.	A "Wetlands Action Plan" that guides activities, resources, and planning towards achieving the Section 307 (WRDA '90) interim goal of no overall net loss of wetlands and the long-term goal of increased quantity and quality of the Nations' wetlands.	The amount of wetlands (acres and functions) under Corps jurisdiction (regulatory or Federal project) that have been protected or restored and also those that have been increased in quantity and quality.	Acreage of wetlands that have been protected or restored; acreage of wetlands that have been increased in quantity and quality.
6.2 - Use dredged material beneficially to restore and create wetlands and other aquatic habitats.	Wetlands and other aquatic habitats restored or created using clean dredged material from Corps projects.	Amount of wetlands and other aquatic habitat restored.	Acreage of wetlands that have been restored; acreage of wetlands that have been increased in quantity and quality.
6.3 - Conduct wetlands research.	Individual research reports with new information on wetlands.	Milestones met and research work units completed.	New information on wetlands functions, values from a planning and operational view.
6.4 - Improve the efficiency and responsiveness of the Regulatory Program to the President's Wetlands Plan.	Improved efficiency of the regulatory program and increase its contribution to the President's Wetlands Plan through guidance and policy changes as recommended in the President's Wetlands Plan.	Number of days in which the permit processing time is reduced; the number of acres of wetland habitat that are protected and/or restored through the program.	Improves the administrative appeals process; improves the program in that it now examines all physical damages to "waters of the United States"; reduces the overall time for permit processing; and contributes to the overall no net loss of wetlands in the short term and the overall gain in wetlands in the long term.

**TABLE 7
TABLE OF ACTION ITEMS
CIVIL WORKS ENVIRONMENTAL ACTION PLAN
PRACTICE ENVIRONMENTAL ENGINEERING**

ACTION ITEMS	AUTHORITY	RESPONSIBLE OFFICES		RESOURCES REQUIRED	
		PROPONENT	PARTNERS	FUNDING (\$1,000)	DURATION
Action Items 7.1-7.6 are subordinate to Action Item 3.1. The cost estimate in 3.1 reflect the costs coverage for these subordinate action items.					
7.1 - Chief's June '92 Initiative #1. In the very near future, a series of workshops will be held with the MSC's to communicate environmental ethics in engineering methodologies/strategies for implementation.	CECG memo of 23 June 92, 'Civil Works Environmental Engineering Policy and Initiatives'	CECW-EP	Corps-wide interaction.	See Action Item 3.1	5 YEARS
7.2 - Chief's June '92 Initiative #2. Appropriate resources will be allocated so that sound environmental engineering practices will be employed at the "grass-roots" level in all stages of project planning, design, construction, operation and maintenance for Civil Works projects.	CECG memo of 23 June 92, 'Civil Works Environmental Engineering Policy and Initiatives'	CECW-EP	Districts and operating Divisions staff; local sponsors.	See Action Item 3.1	5 YEARS

**TABLE 7
TABLE OF ACTION ITEMS
CIVIL WORKS ENVIRONMENTAL ACTION PLAN
PRACTICE ENVIRONMENTAL ENGINEERING**

ACTION ITEMS	AUTHORITY	RESPONSIBLE OFFICES		RESOURCES REQUIRED	
		PROPONENT	PARTNERS	FUNDING (\$1,000)	DURATION
7.3 - Chief's June '92 Initiative #3. A free-flow exchange of environmental engineering information and expertise between all elements in the Corps and outside will be established. This will ensure an interdisciplinary approach to environmental engineering.	CECG memo of 23 June 92, "Civil Works Environmental Engineering Policy and Initiatives"	CECW-EP	Corps-wide interaction.	See Action Item 3.1	5 YEARS
7.4 - Chief's June '92 Initiative #4. Published guidance will be aggressively updated to include environmental engineering as a critical component in planning, design, construction, operation and maintenance of Civil Works projects.	CECG memo of 23 June 92, "Civil Works Environmental Engineering Policy and Initiatives"	CECW-EP	Corps-wide interaction.	See Action Item 3.1	5 YEARS
7.5 - Chief's June '92 Initiative #5. The spirit of environmental stewardship and responsibility with local cost-sharing partners and resource agencies will be fostered by exemplifying and demonstrating that application of environmental engineering strategies have a long term benefit for the project and the Nation.	CECG memo of 23 June 92, "Civil Works Environmental Engineering Policy and Initiatives"	CECW-EP	Local sponsors and resource agencies.	See Action Item 3.1	5 YEARS

**TABLE 7
TABLE OF ACTION ITEMS
CIVIL WORKS ENVIRONMENTAL ACTION PLAN
PRACTICE ENVIRONMENTAL ENGINEERING**

ACTION ITEMS	AUTHORITY	RESPONSIBLE OFFICES		RESOURCES REQUIRED	
		PROPONENT	PARTNERS	FUNDING (\$1,000)	DURATION
7.6 - Chief's June '92 Initiative #6. Project generated design documentation requirements for Civil Works projects will be revised to include a comprehensive and holistic treatment of environmental engineering to project design.	CECG memo of 23 June 92, "Civil Works Environmental Engineering Policy and Initiatives"	CECW-EP	Corps-wide interaction.	See Action Item 3.1	5 YEARS
7.7 - Add environmental considerations to Value Engineering to ensure that sound environmental practices, including pollution prevention and mitigation of adverse effects through good design, are followed.	Existing Authority, i.e., ASA(CW)'s discretionary authority.	CECW-EP	Multidisciplinary environmental review team established at District and Operating Division Offices.	PRIOR YR. \$80,000 FY95 \$640 FY96 \$640 FY97 \$640 FY98 \$640 FY99 \$640 GI	5 YEARS
7.8 - Revise construction specs to require construction contractors to strengthen environmental protection features consistent with NEPA and other environmental requirements.	Existing Authority, i.e., ASA(CW)'s discretionary authority which established the Civil Works Guidance Update Program (CWGUP).	CECW-EP	CEWES-EE-A, Districts and operating Divisions.	PRIOR YR. \$80 FY95 \$150 FY96 \$ 0 FY97 \$ 20 FY98 \$ 0 FY99 \$ 20 GE	5 YEARS

**COMMENTS: 7.1-7.6 - These Action Items is subordinate to Action Item 3.1.
7.7 - Programmed by FOA.
7.8 - Will be budgeted under CWGUP.**

**TABLE 7A
TABLE OF ACTION ITEMS
CIVIL WORKS ENVIRONMENTAL ACTION PLAN
PRACTICE ENVIRONMENTAL ENGINEERING**

ACTION ITEMS	PRODUCT	PROGRESS INDICATOR	BENEFITS
Action Items 7.1-7.6 are subordinate to Action Item 3.1.			
7.1 - Chief's June '92 Initiative #1. In the very near future, a series of workshops will be held with the MSC's to communicate environmental ethics in engineering methodologies/strategies for implementation.	Workshops to be presented to discuss and suggest ways to improve our sensitivity to environmental issues.	Numbers of workshops held and number of innovative engineering solutions to environmental problems.	Greater consideration of the environment in our design of future water resource projects.
7.2 - Chief's June '92 Initiative #2. Appropriate resource will be allocated so that sound environmental engineering practices will be employed at the "grass-roots" level in all stages of project planning, design, construction, operation and maintenance for Civil Works projects.	Workshops to be presented to discuss and suggest ways to improve our sensitivity to environmental issues.	Numbers of personnel assigned to environmental issues (% increase). Percent increase in environmental programs.	Greater consideration of the environment in our design of future water resource projects.
7.3 - Chief's June '92 Initiative #3. A free-flow exchange of environmental engineering information and expertise between all elements in the Corps and outside will be established. This will ensure an interdisciplinary approach to environmental engineering.	Workshops to be presented to discuss and suggest ways to improve our sensitivity to environmental issues and encourage attendance at professional meetings particularly when a professional paper is to be delivered.	Numbers of papers/presentations made in this area.	Greater consideration of the environment in our design of future water resource projects.
7.4 - Chief June '92 Initiative #4. Published guidance will be aggressively updated to include environmental engineering as a critical component in planning, design, construction, operation and maintenance of Civil Works projects.	Updated guidance that is consistent with current environmental law and science.	Periodic critical examinations of various regulations (on-going activity).	Greater consideration of the environment in our design of future water resource projects.

**TABLE 7A
TABLE OF ACTION ITEMS
CIVIL WORKS ENVIRONMENTAL ACTION PLAN
PRACTICE ENVIRONMENTAL ENGINEERING**

ACTION ITEMS	PRODUCT	PROGRESS INDICATOR	BENEFITS
<p>7.5 - Chief's June '92 Initiative #5. The spirit of environmental stewardship and responsibility with local cost-sharing partners and resource agencies will be fostered by exemplifying and demonstrating that the application of environmental engineering strategies have a long term benefit for the project and the Nation.</p>	<p>Workshops to be presented to discuss and suggest ways to improve our sensitivity to environmental issues.</p>	<p>Numbers of workshops held and number of innovative engineering solutions to environmental problems.</p>	<p>Greater consideration of the environment in our design of future water resource projects.</p>
<p>7.6 - Chief's June '92 Initiative #6. Project generated design documentation requirements for Civil Works projects will be revised to include a comprehensive and holistic treatment of environmental engineering to project design.</p>	<p>Update design documentation requirements to include environmental considerations.</p>	<p>Percent completion/fiscal year.</p>	<p>Greater consideration of the environment in our design of future water resource projects.</p>
<p>7.7 - Add environmental considerations to Value Engineering to ensure that sound environmental practices, including pollution prevention and avoidance minimization and mitigation of adverse effects through good design, are followed.</p>	<p>Verification of environmentally sound design and incorporation of pollution prevention aspects incorporated into the design.</p>	<p>Percent completed/fiscal year.</p>	<p>Greater consideration of the environment in our design of future water resource projects.</p>
<p>7.8 - Revise construction specs to require construction contractors to submit environmental protection plans (environmental compliance plans) consistent with NEPA and other environmental requirements.</p>	<p>Phase I: FY93. Initial update of guide specs for interim guidance and field critique at EEGUM and from EC/Chiefs review solicitation.</p> <p>Phase II: FY94. Final update of guide specs based on Phase I critiques.</p> <p>Phase III: FY95. Preparation of an accompanying EM to the final guide for use by design engineers.</p>	<p>Percent completed/fiscal year.</p>	<p>Greater consideration of the environment in our design of future water resource projects.</p>

**TABLE 8
TABLE OF ACTION ITEMS
CIVIL WORKS ENVIRONMENTAL ACTION PLAN
PRACTICE ENVIRONMENTAL PLANNING**

ACTION ITEMS	AUTHORITY	RESPONSIBLE OFFICES		RESOURCES REQUIRED	
		PROPONENT	PARTNERS	FUNDING (\$1,000)	DURATION
8.1 - Focus on watershed and ecosystem scale planning to analyze and formulate plans for environmental impact mitigation and restoration. Research to provide operational information.	Existing Authority, Project specific authorities.	CECW-PO	CERD-C, CEWES, CEWRC-IWR, other Federal and State natural resource agencies.	FY96 \$1,000 FY97 \$1,000 FY98 \$ 500 GI	3 YEARS New Funds
8.2 - Join other Federal water resource agencies and other interested parties in a cooperative review of the "Economic and Environmental Principles and Guidelines for Water and Related Land Resources Implementation Studies" to explore means to improve consideration of environmental problems, opportunities and recommendations.	Existing Authority	CECW-PO	CEWRC-IWR, TVA, SCS, BOR, USF&WS, NMFS, USEPA, Congressional committees that oversee the Federal agencies that must comply with P&G.	FY96 \$100 FY97 \$ 50 GI	2 YEARS New Funds
8.3 - Consolidate and update environmental restoration planning guidance.	Existing Authority	CECW-PO	CECW-OA, CECW-ON, CEMP-R	N/A	1 YEAR Cont. Program

COMMENTS: 8.1 - The Corps currently plans Federal projects on a watershed basis, although the entire watershed is seldom for any one given project. Watershed and ecosystem impact assessment will require a much closer analysis of the full array of impacts and the impact area than is currently given in project planning. Much greater use of GIS with the resource agencies, Federal and State, will be required to develop workable, acceptable definitions of ecosystems and sustainable development. The out-year funding estimates are for such items as technology transfer, workshops, and information pertinent to project specific planning efforts. Environmental planning guidance is now being developed by HQUSACE and CEWRC-IWR. R&D products would be basis to update environmental planning guidance.

8.2 - Funds are for CEWRC-IWR policy studies.

8.3 - Environmental planning guidance is now being developed by HQUSACE and CEWRC-IWR.

**TABLE 8A
TABLE OF ACTION ITEMS
CIVIL WORKS ENVIRONMENTAL ACTION PLAN
PRACTICE ENVIRONMENTAL PLANNING**

ACTION ITEMS	PRODUCT	PROGRESS INDICATOR	BENEFITS
8.1 - Focus on watershed and ecosystem scale planning to analyze and formulate plans for environmental impact mitigation and restoration.	New environmental planning guidance and policy based on R&D reports.	Number of feasibility reports and detailed project reports, etc. per year, that are using the watershed/ecosystem approach for mitigation and restoration.	The current ecosystem fragmentation caused by Federal projects will be reduced. Some ecosystem restoration and better management.
8.2 - Join other Federal water resource agencies and other interested parties in a cooperative review of the "Economic and Environmental Principles and Guidelines for Water and Related Land Resources Implementation Studies" to explore means to improve consideration of environmental problems, opportunities and recommendations.	A draft revision of the P&G to be sent to the Administration for approval; a Final P&G prepared in cooperation with the Administration and Congress.	Draft and Final Documents.	Federal water projects that would focus on, and maximize, the protection, restoration, and enhancement of the natural and cultural environment as well as economic outputs and maximization of net economic benefits.
8.3 - Consolidate and update environmental planning guidance.	A single guidance document that addresses all aspects of the environment as it relates to planning Corps water resources projects and compliance with environmental law.	Draft and Final Documents.	More efficient and accurate environmental planning compliance carried out in the field will reduce higher authority review time, cut costs, and improve agency credibility with partners and other Federal, State resource agencies. Better environmental projects and monitoring will result in improvements to the quality of the environment.

**TABLE 9
TABLE OF ACTION ITEMS
CIVIL WORKS ENVIRONMENTAL ACTION PLAN
IMPROVE MANAGEMENT AND ADMINISTRATIVE PRACTICES**

ACTION ITEMS	AUTHORITY	RESPONSIBLE OFFICES		RESOURCES REQUIRED	
		PROPONENT	PARTNERS	FUNDING (\$1,000)	DURATION
9.1 - Review Corps business practices and procedures (budgeting and appropriations process, procurement process and construction contracting process) to identify and implement methods to encourage, and remove impediments to, good environmental practices and use of environmentally acceptable products.	EIG involvement will not require new authorities.	CECW-EP	Engineer Inspector General (EIG).	FY95 \$200 FY96 \$200 FY97 \$200 FY98 \$100 FY99 \$100 See 9.1	5 YEARS
9.2 - Monitor and meet environmental commitments over the life of a Civil Works project.	Existing Authority and Existing P.L. (NEPA, CEQ).	CECW-OA, CECW-ON, CCW-PO	HQUSACE	FY97 \$2,000 (500) FY98 \$4,000 (2,500) FY99 \$6,000 (4,500) FY00 \$6,000 (4,500) (O&M)	4 YEARS NEW FUNDS
9.3 - Fully utilize the Environmental Coordinating Committee at HQUSACE to provide the major subordinate and district commands organizational direction and guidance related to the execution of environmental activities.	Existing Authority	HQUSACE	HQUSACE currently represented on the ECC, MSC and District Commands.	N/A	5 YEARS

COMMENTS: 9.1 - EIG budgeted.
 9.2 - Funding estimates assumes a minimum of \$50K per district per year to monitor and enforce environmental commitments. Environmental monitoring costs should be a line item in all future feasibility studies and authorizing documents. The \$24M for FY97-FY00 is composed of \$7.5M of continuing funds and \$16.5M of new funds. Funds are redirected from Natural Resource Management Base.
 9.3 - No Comments.

**TABLE 9A
TABLE OF ACTION ITEMS
CIVIL WORKS ENVIRONMENTAL ACTION PLAN
IMPROVE MANAGEMENT AND ADMINISTRATIVE PRACTICES**

ACTION ITEMS	PRODUCT	PROGRESS INDICATOR	BENEFITS
<p>9.1 - Review Corps business practices and procedures (budgeting and appropriations process, procurement process and construction contracting process) to identify and implement methods to encourage, and remove impediments to, good environmental practices and use of environmentally acceptable products.</p>	<p>Immediate action: Enlist the services of the EIG to prosecute this action by formal request/directive.</p> <p>Phase I: FY95. EIG and HQUSACE will develop a concept plan or POA.</p> <p>Phase II: FY96. EIG and HQUSACE will develop detailed inspection plans, inspector plans, and training plans.</p> <p>Phase III: FY97. Conduct interviews with subordinate commands, including project staff.</p> <p>Phase IV: FY98 & FY99: Assess and implement, if appropriate, EIG recommendations.</p>	<p>Percent completed/fiscal year/phase</p>	<p>Streamline business processes to include appropriate environmental features . . . provide for Corps to establish leadership in this area.</p>
<p>9.2 - Monitor and meet environmental commitments over the life of a Civil Works project.</p>	<p>Policy and Guidance (ER, etc.) to USACE commands for environmental monitoring and to assure that environmental commitments are carried out and enforced.</p>	<p>Initiation of surveys to identify environmental commitments made; Number of commitments achieved each year; Number of environmental commitments that are carried out per year. Establishment of environmental monitoring and enforcement programs in each MSC and district.</p>	<p>Damages to resources (ecological or cultural) that were impacted by a Corps project would be mitigated, as measured by units of land, water, or structures. Restoration of resources would be carried out and shown to be functioning as planned and implemented over the life of a project.</p>
<p>9.3 - Fully utilize the Environmental Coordinating Committee at HQUSACE to provide the major subordinate and district commands organizational direction and guidance related to the execution of environmental activities.</p>	<p>Establishment of ECCs at MSC and District Commands. Environmental policy guidance and action directions to MSCs from HQUSACE ECC.</p>	<p>Number of ECCs at MSC and District Commands.</p>	<p>Better environmental coordination and policy guidance/direction from the organizations senior leaders will result in more environmentally sensitive water resource projects and other Corps activities and will improve agency communications with other Federal resource agencies and environmental constituents.</p>

**TABLE 10
TABLE OF ACTION ITEMS
CIVIL WORKS ENVIRONMENTAL ACTION PLAN
IMPROVE TECHNIQUES FOR ENVIRONMENTAL ANALYSIS**

ACTION ITEMS	AUTHORITY	RESPONSIBLE OFFICES		RESOURCES REQUIRED	
		PROPONENT	PARTNERS	FUNDING (\$1,000)	DURATION
10.1 - Encourage the use of existing and newly developed environmental databases.	Existing Authority	CECW-PO	CECW-E, CECW-O, CEMP-R, CERE-C	FY96 \$500 FY97 \$500 FY98 \$500 GI, O&M	3 YEARS NEW FUNDS
10.2 - Implement the Evaluation of Environmental Investments Research Program (EEIRP). This proposed research program will develop an evaluation framework and techniques that can be used to formulate and prioritize alternative environmental investment projects and programs.	Existing R&D Program	CECW-PO, CECW-PD	USACE, Other Federal agencies or other groups that must provide resources, (e.g., CEWRC-IWR, CEWES).	PR. YEAR \$2,000 FY95 \$2,000 FY96 \$2,000 GI	3 YEARS CONT. PROGRAM
10.3 - Incorporate risk assessment and risk management techniques into Corps Civil Works activities and planning. Building on the existing work unit in the "Risk Analysis for Water Resources Investment" develop expanded program to identify, characterize, quantify, assess, and evaluate the full range of risks and uncertainties in the Corps Civil Works program.	Existing R&D Program	CECW-PO, CECW-PD	USACE, Other Federal agencies or other groups that must provide resources, (e.g., CEWRC, CEWES).	N/A	3 YEARS

COMMENTS: 10.1 - Field personnel will need to be trained to use GIS and other agency databases, etc. Funding split 50-50 for planning purposes.
 10.2 - Special requirements for FTE's and expertise; citations for specific authorities; Impediments to success, etc.
 10.3 - Risk Analysis is an integral part of the EEIRP Item #10.2. Funding for Item #10.3 is included in Item #10.2 Special requirements for FTE's and expertise; citations for specific authorities; Impediments to success, etc.

**TABLE 10A
TABLE OF ACTION ITEMS
CIVIL WORKS ENVIRONMENTAL ACTION PLAN
IMPROVE TECHNIQUES FOR ENVIRONMENTAL ANALYSIS**

ACTION ITEMS	PRODUCT	PROGRESS INDICATOR	BENEFITS
<p>10.1 - Encourage the use of existing and newly developed environmental databases.</p>	<p>Full GIS and database utilization capability at all Corps District Offices.</p>	<p>Number of Districts using full GIS and database capabilities.</p>	<p>More efficient use of available environmental information will result in better environmental analyses and projects.</p>
<p>10.2 - Implement the Evaluation of Environmental Investments Research Program (EEIRP). This proposed research program will develop an evaluation framework and techniques that can be used to formulate and prioritize alternative environmental investment projects and programs.</p>	<p>The evaluation framework and measurement techniques will be described in research reports and user manuals for inclusion by reference in the USACE Planning Guidance Notebook. Case study applications, seminars and workshops, and training programs will also be developed for technology transfer.</p>	<p>Percent completed/fiscal year.</p>	<p>More environmental sustainable projects - environmental benefits will be able to be better quantified.</p>
<p>10.3 - Incorporate risk assessment and risk management techniques into Corps Civil Works activities and planning. Building on the existing work unit in the "Risk Analysis for Water Resources Investment" develop expanded program to identify, characterize, quantify, assess, and evaluate the full range of risks and uncertainties in the Corps Civil Works program.</p>	<p>The program will develop manuals, reports, and guidance to assist the field personnel in identifying, quantifying, and assessing risks including the appropriate distributions for key variables and parameters. It will also provide recommendations on displays of results and decision rules for determining the appropriate tradeoff between risks and costs. Case studies, workshops, seminars, and training programs will be developed to technology transfer.</p>	<p>Percent completed/fiscal year. Five (5) percent completed (based on FY92 and proposed FY94 funding of existing research work unit).</p>	<p>Provide a more meaningful measure of environmental risks - enable decisionmakers to better perform trade-offs.</p>

**TABLE 11
TABLE OF ACTION ITEMS
CIVIL WORKS ENVIRONMENTAL ACTION PLAN
IMPROVE ENVIRONMENTAL EDUCATION**

ACTION ITEMS	AUTHORITY	RESPONSIBLE OFFICES		RESOURCES REQUIRED	
		PROPONENT	PARTNERS	FUNDING (\$1,000)	DURATION
11.1 - Develop environmental education programs to use in training Corps employees in coordination with professional organizations, colleges and universities.	Existing Authority	CECW-E, CECW-O, CECW-PO	CEHND-TD, MSC, ODEP and District Commands, Professional environmental organizations, colleges and universities.	N/A	Continuing Program
11.2 - Require environmental training based on specific job responsibilities (e.g., ACTEDS).	Existing Authority	CECW-E, CECW-L, CECW-O, CECW-P	CEHR	FY96 \$1,000 GE and District Overhead	1 YEAR
11.3 - Update and improve the environmental training courses in the PROSPECT Program.	Existing Authority	CECW-E, CECW-O, CECW-PO	CEHND-TD, CEWES, CEWRC-IWR	N/A	Continuing Program

COMMENTS: 11.1 - A full survey of Corps field offices and meetings with partner agencies/organizations will need to be conducted to ascertain new environmental training needs.
 11.2 - Significant effort will be required by Civil Works proponents and the Human Resources Directorate to identify those jobs and responsibilities that require environmental training for those positions.
 11.3 - Special requirements for FTE's and expertise; citations for specific authorities; impediments to success; etc.

**TABLE 11A
TABLE OF ACTION ITEMS
CIVIL WORKS ENVIRONMENTAL ACTION PLAN
IMPROVE ENVIRONMENTAL EDUCATION**

ACTION ITEMS	PRODUCT	PROGRESS INDICATOR	BENEFITS
<p>11.1 - Develop an environmental education program to use in training Corps employees in coordination with professional organizations, colleges and universities.</p>	<p>Environmental training courses developed in coordination with professional environmental organizations and academia.</p>	<p>Number of new environmental training courses coordinated with field offices and outside sources.</p>	<p>Better environmentally informed Corps field personnel and opportunity to cross-train with other Federal resource agencies will result in better environmental projects and environmental input into traditional Corps projects.</p>
<p>11.2 - Require environmental training based on specific job responsibilities.</p>	<p>All pertinent job descriptions/job series will have necessary environmental training identified. Required training will be highlighted.</p>	<p>Inclusion into all job descriptions appropriate environmental responsibilities.</p>	<p>Personnel in positions that require specific environmental training will benefit and produce better products with appropriate environmental training.</p>
<p>11.3 - Update and improve the environmental training courses in the PROSPECT Program.</p>	<p>New or revised environmental training (PROSPECT) courses.</p>	<p>Number of environmental courses offered and frequency of curriculum updates.</p>	<p>Environmental PROSPECT courses that are improved and updated to meet current and future needs will result in better trained Corps personnel and consequently better environmental input to Corps projects and activities.</p>

**TABLE 12
TABLE OF ACTION ITEMS
CIVIL WORKS ENVIRONMENTAL ACTION PLAN
IMPROVE COMMUNICATIONS AND DEVELOP PARTNERSHIPS**

ACTION ITEMS	AUTHORITY	RESPONSIBLE OFFICES		RESOURCES REQUIRED	
		PROONENT	PARTNERS	FUNDING (\$1,000)	DURATION
12.1 - Facilitate the exchange of environmental and engineering technologies (e.g., disseminate information about lessons learned, success stories, model projects and applications of innovative technology).	Existing Authority	Environmental Engineering; CECW-EP.	CECW-EH, CECW-PO, CEMP-RT, other Federal and state resources agencies, professional engineering organizations, environmental interest groups, and non-Federal cost sharing partners.	FY95 \$150 FY96 \$200 FY97 \$200 FY98 \$200 FY99 \$200 GI	Continuing Program
12.2 - Promote collaborative efforts with other Government agencies to improve management of environmental programs which require interagency actions (e.g., Coastal America).	Existing Authorities, Fish and Wildlife Coordination Act.	CECW-OA	CECW-ON, CECW-OR, CECW-PO, other Federal and state resources agencies, environmental interagency groups and non-Federal cost sharing partners.	See Comment 12.2 N/A	Continuing Program
12.3 - Develop better dialogue with environmental and conservation organizations.	Existing Authority, National Environmental Policy Act (NEPA), Fish and Wildlife Coordination Act (FWCA), Endangered Species Act (ESA), and other environmental laws.	CECW-OA	CECW-ON, CECW-PO, Environmental and Conservation organizations.	See Comment 12.3 N/A	Continuing Program

COMMENTS: 12.1 - Civil Works funding through Environmental Data Studies.
 12.2 - Project implementation funding via individual existing authorities, i.e., Section 1135, NAWMP, Section 204 WRDA '92 etc.
 12.3 - In order to accomplish this action, an additional FTE would be needed in each of the proponent offices. This also reflects the cumulative effects of the aspects of the Action Plan.

**TABLE 12A
TABLE OF ACTION ITEMS
CIVIL WORKS ENVIRONMENTAL ACTION PLAN
IMPROVE COMMUNICATIONS AND DEVELOP PARTNERSHIPS**

ACTION ITEMS	PRODUCT	PROGRESS INDICATOR	BENEFITS
<p>12.1 - Facilitate the exchange of environmental and engineering technologies. For example, disseminate information about lessons learned, success stories, model projects and application of innovative technology.</p>	<p>Newsletters, agenda items at existing conferences, workshops, demonstration areas, environmental after-action reports.</p>	<p>Newsletters - Issues per year, Agenda items - Number per year, Workshops - Number per year, Demonstration areas - Number of projects initiated per year, Environmental after-action reports - Number per year.</p>	<p>Indeterminate - the greater the exchange of cost effective environmental technology, the greater will be the environmental effectiveness of our projects.</p>
<p>12.2 - Promote collaborative efforts with other Government agencies to improve management of environmental programs which require interagency actions.</p>	<p>Joint venture activities, Coastal America projects, fisheries habitat improvement projects, Watchable Wildlife sites and statewide guides, and other projects as developed.</p>	<p>Joint venture activities - Number of projects per year, Coastal America projects - Number per year, Fisheries habitat improvement - Number per year, Watchable Wildlife sites and statewide guides - Number of projects per year.</p>	<p>Protected, improved or restored environmental resources (acres of lands and/or water; added habitat units provided; protection of cultural resources.</p>
<p>12.3 - Develop better dialogue with environmental and conservation organizations.</p>	<p>Reduced confrontation on project design, construction, operations and remediation. Design and operation of environmental sustainable projects. Early recognition of environmental problems/issues.</p>	<p>Project specific environmental issues - Number of issues that reach HQ for resolution.</p>	<p>Project would require less mitigation because they would be formulated for environmental sustainability.</p>

**TABLE 13
TABLE OF ACTION ITEMS
CIVIL WORKS ENVIRONMENTAL ACTION PLAN
GET OUT THE ENVIRONMENTAL GOOD NEWS**

ACTION ITEMS	AUTHORITY	RESPONSIBLE OFFICES		RESOURCES REQUIRED	
		PROPONENT	PARTNERS	FUNDING (\$1,000)	DURATION
13.1 - Increase Public Affairs (PA) coverage of the Corps' environmental programs (e.g., complete and distribute Environmental Brochure and widely publicize existing interagency programs to demonstrate collaborative activities among the participating agencies on programs such as Coastal America and North American Waterfowl Management Plan).	Existing Authority, P.L. 85-480 (Ref: Chief of Engineers, publications of pamphlets, etc.) and ER 360-1-1.	CECW-ON CECW-PO	CEPA, and all other appropriate HQ offices	FY95 \$100 FY96 \$100 FY97 \$100 FY98 \$100 FY99 \$100 GE	Continuing Program
13.2 - Emphasize environmental awards program in the Corps.	Existing Authority, AR 672-20 "Decorations, Awards, and Honors - Incentive Awards"	CECW-ON CECW-PO	Other appropriate HQ offices	FY96 \$25 FY97 \$25 FY98 \$25 FY99 \$25 GE	Continuing Program

COMMENTS: 13.1 - Cost savings and efficiencies realized by allowing others to spread the "good news" for the Corps; e.g., funding via Environmental Data Studies.
13.2 - No Comments.

**TABLE 13A
TABLE OF ACTION ITEMS
CIVIL WORKS ENVIRONMENTAL ACTION PLAN
GET OUT THE ENVIRONMENTAL GOOD NEWS**

ACTION ITEMS	PRODUCT	PROGRESS INDICATOR	BENEFITS
<p>13.1 - Increase Public Affairs coverage of the Corps' environmental programs.</p>	<p>Environmental brochures, press releases on environmental topics, exhibits and videos on environmental projects/issues, command briefing, and interpretive programs.</p>	<p>Brochures - Number of programs covered per year, Press releases - Number of environmental events and activities covered per year, Exhibits - Number of national, regional and local events COE displayed per year, Command briefing and Interpretive programs - Number of programs generated with environmental content per year.</p>	<p>Greater appreciation of COE environmental capabilities leading to a greater diversity of COE cost sharing partners.</p>
<p>13.2 - Emphasize environmental awards programs in the Corps.</p>	<p>Chief's Environmental Design Awards; Dual COE/non-COE Environmentalist per year Awards Program and Process for nominations for COE employees for environmental awards given by other organizations.</p>	<p>Chief's Environmental Design Award - Number of publications and other media per year, Dual awards and Awards programs established - Number awards per year, Awards for other organizations - Process established and Number of nominations per year.</p>	<p>Greater recognition of COE environmental activities and celebration of COE successes.</p>

**FOUNDATION BLOCKS,
WORK SEQUENCE DIAGRAM
AND
SUMMARY OF ESTIMATED COSTS**

**TABLE 14
CIVIL WORKS ENVIRONMENTAL ACTION PLAN
RELATIONSHIP OF ACTION ITEMS TO ARMY STRATEGY
FOUNDATION BLOCKS**

ACTION ITEMS	PILLARS				FOUNDATION BLOCKS			
	C O M P L I A N C E	R E S T O R A T I O N	P R E V E N T I O N	C O N S E R V A T I O N	P E O P L E	R E S O U R C E S	C O M M U N I C A T I O N	M G M T & O R G
1.1 - Continue and expand the Environmental Review Guide for Operations (ERGO) and assessment process to ensure environmental compliance with Federal, state, and local regulations and to operational sites and process; floating plant and other appropriate activities.	X				X	X	X	X
1.2 - Develop comprehensive environmental compliance guidance documents for Civil-funded projects and facilities.	X				X	X	X	X
1.3 - Develop an environmental compliance monitoring and analysis process with capabilities for tracking deficiencies and violations.	X				X	X	X	X
1.4 - Develop a management system for complete control of HTRW. Develop a hazardous, toxic, and radiological materials management system from acquisition through storage, handling, use, reuse, recycling and final disposition.	X				X	X	X	X

**TABLE 14
CIVIL WORKS ENVIRONMENTAL ACTION PLAN
RELATIONSHIP OF ACTION ITEMS TO ARMY STRATEGY
FOUNDATION BLOCKS**

ACTION ITEMS	PILLARS				FOUNDATION BLOCKS			
	C O M P L I A N C E	R E S T O R A T I O N	P R E V E N T I O N	C O N S E R V A T I O N	P E O P L E	R E S O U R C E S	C O M M U N I C A T I O N	M G M T & O R G
2.1 - Develop guidance for restoration activities at existing Corps projects and facilities to include preparation of an inventory; criteria for prioritizing sites and methods of remediation; preparation, negotiation, and approvals of environmental agreements; and mechanisms for fully utilizing the Military Environmental Programs expertise (MCX/HTRW Design Districts).		X						
2.2 - Assess the magnitude of Civil Works restoration problems.		X						
2.3 - Implement Civil Works restoration program - "Worst First" basis.		X						
3.1 - Review regulations, engineering manuals and guide specifications to determine which ones can be used to strengthen pollution prevention activities. (See Action Items 7.1-7.6).			X					X

**TABLE 14
CIVIL WORKS ENVIRONMENTAL ACTION PLAN
RELATIONSHIP OF ACTION ITEMS TO ARMY STRATEGY
FOUNDATION BLOCKS**

ACTION ITEMS	PILLARS				FOUNDATION BLOCKS			
	C O M P L I A N C E	R E S T O R A T I O N	P R E V E N T I O N	C O N S E R V A T I O N	P E O P L E	R E S O U R C E S	C O M M U N I C A T I O N	M G M T & O R G
3.2 - Develop risk assessment processes and conduct technical risk assessments at existing facilities.			X					X
3.3 - Develop and implement an HTRW minimization program for operating facilities.			X					X
4.1 - Develop and implement a Corps natural resources management mission statement which specifies multiple-use management and contains a clear definition of Corps stewardship responsibilities.			X					
4.2 - Effectively develop and implement the Endangered Species Act across all programs and activities.	X	X	X	X				
4.3 - Examine existing agency policy and directives, and revise the Natural Resources Management regulation (ER 1130-2-400) to better address relevant legislative mandates and authorities, and incorporate the appropriate action items of this Action Plan.				X				

**TABLE 14
CIVIL WORKS ENVIRONMENTAL ACTION PLAN
RELATIONSHIP OF ACTION ITEMS TO ARMY STRATEGY
FOUNDATION BLOCKS**

ACTION ITEMS	PILLARS				FOUNDATION BLOCKS			
	C O M P L I A N C E	R E S T O R A T I O N	P R E V E N T I O N	C O N S E R V A T I O N	P E O P L E	R E S O U R C E S	C O M M U N I C A T I O N	M G M T & O R G
4.4 - Continue to provide Environmental Education to the public at CW water resources projects.	X	X	X	X	X	X	X	X
5.1 - Continue to seek opportunities to modify existing Corps water resources projects to restore fish and wildlife habitat.				X				
5.2 - Seek to identify, study and implement new opportunities to restore fish and wildlife habitats that were degraded, at least in part, by an existing Corps water resources project or that could be more effectively carried out in conjunction with an existing Corps project. (New start projects).				X				
5.3 - Continue to seek opportunities to restore and enhance fish and wildlife habitat on the Upper Mississippi River System in conjunction with the Environmental Management Program.				X				
5.4 - Project development to contribute to the goals of interagency cooperative environmental programs, (e.g., Coastal America, North American Waterfowl Management Plan, National Estuary Program, Gulf of Mexico) coordination.				X				
5.5 - Identify authorized fish and wildlife habitat mitigation activities at completed water resources projects that has been implemented consistent with current cost-sharing policies.				X				

**TABLE 14
CIVIL WORKS ENVIRONMENTAL ACTION PLAN
RELATIONSHIP OF ACTION ITEMS TO ARMY STRATEGY
FOUNDATION BLOCKS**

ACTION ITEMS	PILLARS				FOUNDATION BLOCKS			
	C O M P L I A N C E	R E S T O R A T I O N	P R E V E N T I O N	C O N S E R V A T I O N	P E O P L E	R E S O U R C E S	C O M M U N I C A T I O N	M G M T & O R G
6.1 - Implement the Corps Wetlands Action Plan developed in response to Section 307, WRDA '90.				X				
6.2 - Use dredged material beneficially to restore and create wetlands and other aquatic habitat.				X				
6.3 - Conduct wetlands research.				X				
6.4 - Improve the efficiency and responsiveness of the Regulatory Program to the President's Wetlands Plan.	X			X	X		X	X
7.1 - Chief's June '92 Initiative #1. In the very near future, a series of workshops will be held with the MSC's to communicate environmental ethics in engineering methodologies/strategies for implementation.			X				X	
7.2 - Chief's June '92 Initiative #2. Appropriate resources will be allocated so that sound environmental engineering practices will be employed at the "grass-roots" level in all stages of project planning, design, construction, operation and maintenance for Civil Works projects.			X			X		

**TABLE 14
CIVIL WORKS ENVIRONMENTAL ACTION PLAN
RELATIONSHIP OF ACTION ITEMS TO ARMY STRATEGY
FOUNDATION BLOCKS**

ACTION ITEMS	PILLARS				FOUNDATION BLOCKS			
	C O M P L I A N C E	R E S T O R A T I O N	P R E V E N T I O N	C O N S E R V A T I O N	P E O P L E	R E S O U R C E S	C O M M U N I C A T I O N	M G M T & O R G
7.3 - Chief's June '92 Initiative #3. A free-flow exchange of environmental engineering information and expertise between all elements in the Corps and outside will be established. This will ensure an interdisciplinary approach to environmental engineering.			X					X
7.4 - Chief's June '92 Initiative #4. Published guidance will be aggressively updated to include environmental engineering as a critical component in planning, design, construction, operation and maintenance of Civil Works projects.			X					X
7.5 - Chief's June '92 Initiative #5. The spirit of environmental stewardship and responsibility with local cost-sharing partners and resource agencies will be fostered by exemplifying and demonstrating that application of environmental engineering strategies have a long term benefit for the project and the Nation.			X				X	

**TABLE 14
CIVIL WORKS ENVIRONMENTAL ACTION PLAN
RELATIONSHIP OF ACTION ITEMS TO ARMY STRATEGY
FOUNDATION BLOCKS**

ACTION ITEMS	PILLARS				FOUNDATION BLOCKS			
	C O M P L I A N C E	R E S T O R A T I O N	P R E V E N T I O N	C O N S E R V A T I O N	P E O P L E	R E S O U R C E S	C O M M U N I C A T I O N	M G M T & O R G
7.6 - Chief's June '92 Initiative #6. Project generated design documentation requirements for Civil Works projects will be revised to include a comprehensive and holistic treatment of environmental engineering to project design.			X					X
7.7 - Add environmental considerations to Value Engineering to ensure that sound environmental practices, including pollution prevention and mitigation of adverse effects through good design, are followed.			X					X
7.8 - Revise construction specs to require construction contractors to submit environmental protection plans (environmental compliance plans) consistent with NEPA and other environmental requirements.	X							X
8.1 - Focus on watershed and ecosystem scale planning to analyze and formulate plans for environmental impact mitigation and restoration. Research to provide operational information.				X				X

**TABLE 14
CIVIL WORKS ENVIRONMENTAL ACTION PLAN
RELATIONSHIP OF ACTION ITEMS TO ARMY STRATEGY
FOUNDATION BLOCKS**

ACTION ITEMS	PILLARS				FOUNDATION BLOCKS			
	C O M P L I A N C E	R E S T O R A T I O N	P R E V E N T I O N	C O N S E R V A T I O N	P E O P L E	R E S O U R C E S	C O M M U N I C A T I O N	M G M T & O R G
8.2 - Join other Federal water resource agencies and other interested parties in a cooperative review of the "Economic and Environmental Principles and Guidelines for Water and Related Land Resources Implementation Studies" to explore means to improve consideration of environmental problems, opportunities and recommendations.				X				
8.3 - Consolidate and update environmental restoration planning guidance.	X			X				
9.1 - Review Corps business practices and procedures (budgeting and appropriations process, procurement implement methods to encourage, and remove impediments to, good environmental practices and use of environmentally acceptable products.			X				X	
9.2 - Monitor and meet environmental commitments over the life of a Civil Works project.	X			X				

**TABLE 14
CIVIL WORKS ENVIRONMENTAL ACTION PLAN
RELATIONSHIP OF ACTION ITEMS TO ARMY STRATEGY
FOUNDATION BLOCKS**

ACTION ITEMS	PILLARS				FOUNDATION BLOCKS			
	C O M P L I A N C E	R E S T O R A T I O N	P R E V E N T I O N	C O N S E R V A T I O N	P E O P L E	R E S O U R C E S	C O M M U N I C A T I O N	M G M T & O R G
9.3 - Fully utilize the Environmental Coordinating Committee at HQUSACE to provide the major subordinate and district commands organizational direction and guidance related to the execution of environmental activities.	X	X	X	X				
10.1 - Encourage the use of existing and newly developed environmental databases.	X	X	X	X				
10.2 - Implement the Evaluation of Environmental Investments Research Program (EEIRP). This proposed research program will develop an evaluation framework and techniques that can be used to formulate and prioritize alternative environmental investment projects and programs.	X	X	X	X				
10.3 - Incorporate risk assessment and risk management techniques into Corps Civil Works activities and planning. Building on the existing work unit in the "Risk Analysis for Water Resources Investment" develop expanded program to identify, characterize, quantify, assess, and evaluate the full range of risks and uncertainties in the Corps Civil Works program.	X	X	X	X				X

**TABLE 14
CIVIL WORKS ENVIRONMENTAL ACTION PLAN
RELATIONSHIP OF ACTION ITEMS TO ARMY STRATEGY
FOUNDATION BLOCKS**

ACTION ITEMS	PILLARS				FOUNDATION BLOCKS			
	C O M P L I A N C E	R E S T O R A T I O N	P R E V E N T I O N	C O N S E R V A T I O N	P E O P L E	R E S O U R C E S	C O M M U N I C A T I O N	M G M T & O R G
11.1 - Develop environmental education programs to use in training Corps employees in coordination with professional organizations, colleges and universities.	X	X	X	X				
11.2 - Require environmental training based on specific job responsibilities (e.g., ACTEDS).	X	X	X	X				
11.3 - Update and improve the environmental training courses in the PROSPECT Program.	X	X	X	X				
12.1 - Facilitate the exchange of environmental and engineering technologies (e.g., disseminate information about lessons learned, success stories, model projects and applications of innovative technology).	X	X	X	X				
12.2 - Promote collaborative efforts with other Government agencies to improve management of environmental programs which require interagency actions (e.g., Coastal America).	X	X	X	X				
12.3 - Develop better dialogue with environmental and conservation organizations.	X	X	X	X				

**TABLE 14
CIVIL WORKS ENVIRONMENTAL ACTION PLAN
RELATIONSHIP OF ACTION ITEMS TO ARMY STRATEGY
FOUNDATION BLOCKS**

ACTION ITEMS	PILLARS				FOUNDATION BLOCKS			
	C O M P L I A N C E	R E S T O R A T I O N	P R E V E N T I O N	C O N S E R V A T I O N	P E O P L E	R E S O U R C E S	C O M M U N I C A T I O N	M G M T & O R G
13.1 - Increase Public Affairs (PA) coverage of the Corps' environmental programs (e.g., complete and distribute Environmental Brochure and widely publicize existing interagency programs to demonstrate collaborative activities among the participating agencies on programs such as Coastal America and North American Waterfowl Management Plan).	X	X	X	X				
13.2 - Emphasize environmental awards program in the Corps.	X	X	X	X				

WORK SEQUENCE AND COST INFORMATION

Information concerning estimated funding requirements and proposed scheduling of Action Items is shown in Tables 15 through 17. The three tables contain the same information; however, it has been combined for presentation in various ways and at different levels of detail. Table 15 shows funding information by fiscal year for each Action Item which would be funded under the Construction General (CG), General Investigations (GI), General Expense (GE), and Operations and Maintenance (O&M). Funding information for Action Items funded through the Engineer Inspector General (EIG) has not been included in Table 15. That information is shown in detailed Action Item Tables 1 - 13.

Table 16 is a summary of funding information by fiscal year which shows subtotals and totals of new and continuing funds.

Table 17 shows funding information for each Action Item by fiscal year presented in a format that distributes new and continuing funding by CG, GI, GE and O&M Accounts.

**TABLE 15
CIVIL WORKS ENVIRONMENTAL ACTION PLAN
WORK SEQUENCE DIAGRAM FY95-FY99
FUNDING SOURCES: CG, GI, GE AND O&M**

ACTION ITEMS *	FY95 \$1,000	FY96 \$1,000	FY97 \$1,000	FY98 \$1,000	FY99 \$1,000	SUBTOTAL NEW FUNDS	SUBTOTAL CONT. FUNDS	TOTAL \$1,000
1.1	1,500	3,000	3,000	3,000	3,000	0	13,500	13,500
1.2	0	200	0	0	0	200	0	200
1.3	0	500	50	50	25	625	0	625
1.4	0	500	120	120	50	790	0	790
Subtotal	1,500	4,200	3,170	3,170	3,075	1615	13,500	15,115
2.1	0	500	0	0	0	500	0	500
2.2	0	2,000	1,500	1,500	1,500	6,500	0	6,500
2.3	0	1,500	6,000	6,000	6,000	19,500	0	19,500
Subtotal	0	4,000	7,500	7,500	7,500	26,500	0	26,500
3.1	0	0	0	0	0	0	0	0
3.2	0	410	210	210	210	1,040	0	1,040
3.3	0	4	4	60	60	128	0	128
Subtotal	0	414	214	270	270	1,168	0	1,168
4.1	52,000	1,000 55,000	3,000 61,000	63,000	65,000	4,000†	292,000	296,000
4.2	(2,000)	(2,000)	(2,000)	(2,000)	(5,000)	0	(18,000)	(18,000)
4.3	0	0	0	0	0	0	0	0
4.4	(100)	(100)	(100)	(100)	(100)	0	(600)	(600)
Subtotal	52,000	54,000	58,000	63,000	65,000	4,000	292,000	296,000

* See Tables 1-13 for Action Item Descriptions, Authorities and Funding.

() = The funds in () are funds redirected from Action Item #4 that come from the Natural Resources Management Continuing Base Funds. These funds are not additive.

† Action Item 4.1: New Funds - \$1.0M in FY96; \$3.0M in FY97.

**TABLE 15
CIVIL WORKS ENVIRONMENTAL ACTION PLAN
WORK SEQUENCE DIAGRAM FY95-FY99
FUNDING SOURCES: CG, GI, GE AND O&M**

ACTION ITEMS *	FY95 \$1,000	FY96 \$1,000	FY97 \$1,000	FY98 \$1,000	FY99 \$1,000	SUBTOTAL NEW FUNDS	SUBTOTAL CONT. FUNDS	TOTAL \$1,000
5.1	5,000	10,000	10,000	10,000	10,000	0	45,000	45,000
5.2	0	2,500	5,000	10,000	10,000	27,500	0	27,500
5.3	19,455	19,455	19,455	19,455	19,455	0	97,275	97,275
5.4	1,000	1,000	1,000	1,000	1,000	0	5,000	5,000
5.5	0	1,800	0	0	0	1,800	0	1,800
Subtotal	25,455	34,755	35,455	40,455	40,455	29,300	147,275	176,575
6.1	0	800	800	100	0	1,700	0	1,700
6.2	2,500	10,000	12,000	12,000	15,000	0	51,500	51,500
6.3	900	4,000	4,000	4,000	4,000	16,900	0	16,900
6.4	110,000	114,000	118,000	120,000	125,000	0	587,000	587,000
Subtotal	113,400	128,800	134,800	136,100	144,000	18,600	638,500	657,100
7.1-7.6	0	0	0	0	0	0	0	0
7.7	640	640	640	640	640	0	3,200	3,200
7.8	0	0	0	0	0	0	0	0
Subtotal	640	640	640	640	640	0	3,200	3,200
8.1	0	1,000	1,000	500	0	2,500	0	2,500
8.2	0	100	50	0	0	150	0	150
8.3	0	0	0	0	0	0	0	0
Subtotal	0	1,100	1,050	500	0	2,650	0	2,650

* See Tables 1-13 for Action Item Descriptions, Authorities and Funding.

() = The funds in () are funds redirected from Action Item #4 that come from the Natural Resources Management Continuing Base Funds. These funds are not additive.

† Action Item 4.1: New Funds - \$1.0M in FY96; \$3.0M in FY97.

**TABLE 15
CIVIL WORKS ENVIRONMENTAL ACTION PLAN
WORK SEQUENCE DIAGRAM FY95-FY99
FUNDING SOURCES: CG, GI, GE AND O&M**

ACTION ITEMS *	FY95 \$1,000	FY96 \$1,000	FY97 \$1,000	FY98 \$1,000	FY99 \$1,000	SUBTOTAL NEW FUNDS \$1,000	SUBTOTAL CONT. FUNDS \$1,000	TOTAL \$1,000
9.1	0	0	0	0	0	0	0	0
9.2	0	0	(1,500) 500	(1,500) 2,500	(1,500) 4,500	7,500	(4,500)	7,500
9.3	0	0	0	0	0	0	0	0
Subtotal	0	0	500	2,500	4,500	7,500	(4,500)	7,500
10.1	0	500	500	500	0	1,500	0	1,500
10.2	2,000	2,000	0	0	0	0	4,000	4,000
10.3	0	0	0	0	0	0	0	0
Subtotal	2,000	2,500	500	500	0	1,500	4,000	5,500
11.1	0	0	0	0	0	0	0	0
11.2	0	1,000	0	0	0	0	1,000	1,000
11.3	0	0	0	0	0	0	0	0
Subtotal	0	1,000	0	0	0	0	1,000	1,000
12.1	150	200	200	200	200	0	950	950
12.2	0	0	0	0	0	0	0	0
12.3	0	0	0	0	0	0	0	0
Subtotal	150	200	200	200	200	0	950	950

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* See Tables 1-13 for Action Item Descriptions, Authorities and Funding.

() = The funds in () are funds redirected from Action Item #4 that come from the Natural Resources Management Continuing Base Funds. These funds are not additive.

† Action Item 4.1: New Funds - \$1.0M in FY96; \$3.0M in FY97.

**TABLE 15
 CIVIL WORKS ENVIRONMENTAL ACTION PLAN
 WORK SEQUENCE DIAGRAM FY95-FY99
 FUNDING SOURCES: CG, GI, GE AND O&M**

ACTION ITEMS *	FY95 \$1,000	FY96 \$1,000	FY97 \$1,000	FY98 \$1,000	FY99 \$1,000	SUBTOTAL NEW FUNDS \$1,000	SUBTOTAL CONT. FUNDS \$1,000	TOTAL \$1,000
13.1	100	100	100	100	100	0	500	500
13.2	0	25	25	25	25	0	100	100
Subtotal	100	125	125	125	125	0	600	600
Total						92,833	1,101,025	1,193,858

* See Tables 1-13 for Action Item Descriptions, Authorities and Funding.

() = The funds in () are funds redirected from Action Item #4 that come from the Natural Resources Management Continuing Base Funds. These funds are not additive.

† Action Item 4.1: New Funds - \$1.0M in FY96; \$3.0M in FY97.

**TABLE 16
CIVIL WORKS ENVIRONMENTAL ACTION PLAN
SUMMARY OF SUBTOTALS IN TABLE 15
(\$1,000)**

ACTION ITEMS *	FY95 \$1,000	FY96 \$1,000	FY97 \$1,000	FY98 \$1,000	FY99 \$1,000	SUBTOTAL NEW FUNDS \$1,000	SUBTOTAL CONT. FUNDS \$1,000	TOTAL \$1,000
1	1,500	4,200	3,170	3,170	3,075	1615	13,500	15,115
2	0	4,000	7,500	7,500	7,500	26,500	0	26,500
3	0	414	214	270	270	1,168	0	1,168
4	52,000	55,000	61,000	63,000	65,000	4,000	292,000	296,000
5	25,455	34,755	35,455	40,455	40,455	29,300	147,275	176,575
6	113,400	128,800	134,800	136,100	144,000	18,600	638,500	657,100
7	640	640	640	640	640	0	3,200	3,200
8	0	1,100	1,050	500	0	2,650	0	2,650
9	0	0	500	2,500	4,500	7,500	0	7,500
10	2,000	2,500	500	500	0	1,500	4,000	5,500
11	0	1,000	0	0	0	0	1,000	1,000
12	150	200	200	200	200	0	950	950
13	100	125	125	125	125	0	600	600
TOTAL PER FY	195,245	232,734	245,154	254,960	265,765	92,833	1,101,025	1,193,858

* See Tables 1-13 for Action Item Descriptions.

Table 17

Civil Works Environmental Action Plan

**Recap of Expenditures (\$1,000) FY95 - FY99
By Accounts (CG, GI, GE and O&M)**

**SUMMARY
OF NEW
FUNDS**

Accounts Fiscal Year	CONSTRUCTION GENERAL (CG)					GENERAL INVESTIGATIONS (GI)					GENERAL EXPENSES (GE)					OPERATIONS AND MAINTENANCE (O&M)					SUMMARY OF NEW FUNDS
	95	96	97	98	99	95	96	97	98	99	95	96	97	98	99	95	96	97	98	99	
Action Item																1500	3000	3000	3000	3000	
1.1																0	* 200	0	0	0	200
1.2																0	* 500	* 50	* 50	* 25	625
1.3																0	* 500	* 120	* 120	* 50	790
1.4																1500	4200	3170	3170	3075	
Subtotal																0	* 500				500
2.1																0	* 2000	* 1500	* 1500	* 1500	6500
2.2																0	* 1500	* 6000	* 6000	* 6000	19500
2.3																0	* 4000	* 7500	* 7500	* 7500	
Subtotal																					
3.1																0	* 410	* 210	* 210	* 210	1040
3.2																0	* 4	* 4	* 60	* 60	128
3.3																0	* 414	* 214	* 270	* 270	
Subtotal																					
4.1																52000	**54000	**58000	63000	65000	4000
4.2																	* 1000	* 3000			
4.3																(2000)	(2000)	(2000)	(2000)	(5000)	
4.4																(100)	(100)	(100)	(100)	(100)	
Subtotal																52000	55000	61000	63000	65000	
5.1	5000	10000	10000	10000	10000																27500
5.2						0	* 2500	* 5000	* 10000	* 10000											
5.3	19455	19455	19455	19455	19455																
5.4						1000	1000	1000	1000	1000											1800
5.5							* 1800														
Subtotal	24455	29455	29455	29455	29455	1000	5300	6000	11000	11000											

**Table 17
Civil Works Environmental Action Plan**

**Recap of Expenditures (\$1,000) FY95 - FY99
By Accounts (CG, GI, GE and O&M)**

Accounts	CONSTRUCTION GENERAL (CG)					GENERAL INVESTIGATIONS (GI)					GENERAL EXPENSES (GE)					OPERATIONS AND MAINTENANCE (O&M)					SUMMARY	
	Fiscal Year	95	96	97	98	99	95	96	97	98	99	95	96	97	98	99	95	96	97	98	99	OF NEW FUNDS
Action Item																						
6.1																	0	*800	*800	*100	0	1700
6.2	2500	10000	12000	12000	15000																	
6.3						*900	*4000	*4000	*4000	*4000												
6.4																						16900
Subtotal	2500	10000	12000	12000	15000	*900	*4000	*4000	*4000	*4000						#110000	#114000	#118000	#120000	#125000		
																	110000	114800	118800	120100	125000	
7.1-7.6																						
7.7						640	640	640	640	640												
7.8																						
Subtotal						640	640	640	640	640												
8.1						0	*1000	*1000	*500	0												2500
8.2						0	*100	*50	0	0												150
8.3																						
Subtotal						0	*1100	*1050	*500	0												
9.1																						
9.2																0	0	(1500)	(1500)	(1500)		
9.3																0	0	*500	*2500	*4500		7500
Subtotal																0	0	*500	*2500	*4500		
10.1						0	*250	*250	*250	0						0	*250	*250	*250	0		1500
10.2						2000	2000	0	0	0												
10.3																						
Subtotal						2000	2250	250	250	0						0	*250	*250	*250	0		

Table 17

Civil Works Environmental Action Plan

**Recap of Expenditures (\$1,000) FY95 - FY99
By Accounts (CG, GI, GE and O&M)**

**SUMMARY
OF NEW
FUNDS**

Accounts Fiscal Year	CONSTRUCTION GENERAL (CG)					GENERAL INVESTIGATIONS (GI)					GENERAL EXPENSES (GE)					OPERATIONS AND MAINTENANCE (O&M)					SUMMARY OF NEW FUNDS
	95	96	97	98	99	95	96	97	98	99	95	96	97	98	99	95	96	97	98	99	
Action Item																					
11.1																					
11.2																					
11.3																					
Subtotal																					
12.1						150	200	200	200	200											
12.2																					
12.3																					
Subtotal						150	200	200	200	200											
13.1						100	100	100	100	100											
13.2											0	25	25	25	25						
Subtotal						100	100	100	100	100	0	25	25	25	25						
TOTAL FUNDS	26955	39455	41455	41455	44455	4790	13590	12240	16690	15940	0	1025	25	25	25	163500	178664	191434	196790	205345	1193858
NEW FUNDS						900	9650	10300	14750	14000						0	7664	12434	10790	12345	92833
CONT. FUNDS	26955	39455	41455	41455	44455	3890	3940	1940	1940	1940	0	1025	25	25	25	163500	171000	179000	186000	193000	1101025

Recap of Total Lines (\$1,000)

* New Funds	NEW FUNDS	CONT. FUNDS	TOTAL	
() Included in redirected funds allocated for Action Item 4.1	CG	0	193775	193775
** See note for Action Item 4.1 in Table 15	GI	49600	13650	63250
# Funding for the Regulatory Program, which is shown here under O&M, is funded by a separate appropriation	GE	0	1100	1100
## Funded from GE and District Overhead Accounts	O&M	43233	892500	935733
	TOTAL	92933	1101025	1193858

APPENDICES

APPENDIX A

The Army's environmental program is organized into four pillars: Compliance, Restoration, Prevention, and Conservation. These pillars comprise a comprehensive approach to environmental management.

Compliance

The compliance pillar addresses all activities that ensure that current operations at Army installations and civil works project sites meet federal, state, local, and applicable host-nation environmental requirements and Army regulations. These requirements include laws and regulations in the areas of waster-water discharge, endangered species, noise abatement, wetlands, air quality attainment, historic sites, and solid and hazardous waste management.

The Army strives to achieve compliance at all sites in the United States and abroad. Compliance, however, is a constantly moving target. Part of the Army's responsibility is to keep abreast of changing requirements and to establish relationships with communities and regulators.

Restoration

The restoration pillar includes all activities necessary to clean up contaminated sites at Army installations and civil works projects. The major focus has been at defense sites through the Installation Restoration Program (IRP) and the Formerly Used Defense Sites (FUDS) Program. IRP identifies sites, assesses risk, allocates resources, and cleans up hazardous wastes from previous activities at Army installations. The Army works closely with the EPA and the states in defining appropriate cleanup measures and schedules for remediation.

DoD has given the Army responsibility for implementing the Defense Environmental Restoration Program (DERP) for sites formerly owned or used by any DoD component (FUDS). Investigation and cleanup procedures at these sites are similar to those at currently owned installations.

Prevention

The prevention pillar focuses on eliminating pollution to the greatest extent possible. This includes reducing hazardous materials use and hazardous waste generation. All phases of the material management life cycle from cradle-to-grave are also included.

Prevention is generally achieved in a hierarchical process, starting with source reduction. The amount of waster generated is reduced by changing process inputs, seeking environmentally acceptable or less toxic material, or increasing efficiency by reusing materials and by-products and by treating residuals prior to discharge.

In the long term, proactive prevention requires instilling an environmental ethic that will change behavior across the Army and help to avoid future compliance and restoration problems.

Conservation

The conservation pillar includes two different types of resource management at Army installations and civil works project sites: conservation and preservation. Conservation focuses on responsibly managing Army lands to ensure long-term natural resource productivity so the Army can achieve its mission. Conservation balances the need for long-term resource use and resource protection.

As steward of natural and cultural resources, the Army also practices preservation. Preservation focuses on resource protection. This means limited use by the Army community. Preservation is essential for ensuring the future integrity of valuable national resources, such as wetlands, endangered species habitat, and historic and cultural sites.

APPENDIX B

GLOSSARY OF TERMS

AES	Army Environmental Strategy
BLM	Bureau of Land Management
BOR	Bureau of Reclamation
CECC	Corps of Engineers, Office of the Chief Counsel
CECG	Corps of Engineers, Commanding General (Commander and Chief of Engineers)
CECW-E	Corps of Engineers, Civil Works-Engineering Division
CECW-L	Corps of Engineers, Civil Works-Project Management Division
CECW-O	Corps of Engineers, Civil Works-Operations, Construction and Readiness Division
CECW-P	Corps of Engineers, Civil Works-Policy and Planning Division
CECW-OA	Corps of Engineers, Civil Works-Environmental Compliance Branch
CECW-OD	Corps of Engineers, Civil Works-Dredging and Navigation Branch
CECW-OM	Corps of Engineers, Civil Works-Operations Branch
CECW-PO	Corps of Engineers, Civil Works-Office of Environmental Policy
CECW-Z	Corps of Engineers, Civil Works-Director and Assistant Commander
CEHND-TD	U. S. Army Engineer Division, Huntsville-Training Division
CEHR	Corps of Engineers, Directorate of Human Resources
CELD	Corps of Engineers, Directorate of Logistics Management
CEMP-R	Corps of Engineers, Environmental Restoration Division
CEMP-RT	Corps of Engineers, Environmental Restoration Division, Environmental and Chemical Engineering Branch
CEPA-I	Corps of Engineers, Office of Public Affairs, Public Information Division
CERM-F	Corps of Engineers, Finance and Accounting Division
CERE-C	Corps of Engineers, Directorate of Real Estate, Base Realignment and Closure Office
CERD	Corps of Engineers, Directorate of Research and Development
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act of 1980 (Superfund)
CWEAP	Civil Works Environmental Action Plan
CEWES	U. S. Army Engineer Waterways Experiment Station
CEWRC	U. S. Army Corps of Engineers Water Resources Support Center
CESO	Corps of Engineers, Safety and Occupational Health Office
CEQ	Council on Environmental Quality
CG	Construction General
CWGUP	Civil Works Guidance Update Program
ECC	Environmental Coordinating Committee
ECAS	Environmental Compliance Assessment System
EEIRP	Evaluation of Environmental Investments Research Program
EIG	Engineer Inspector General
ER	Engineer Regulation
ERGO	Environmental Review Guide for Operations
ESA	Endangered Species Act
FIFRA	Federal Insecticide, Fungicide, Rodenticide Act

APPENDIX B

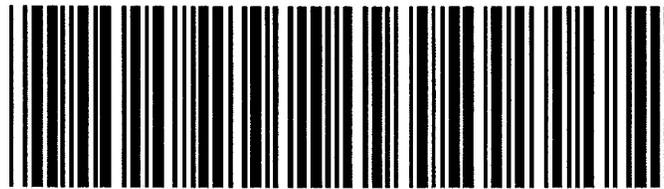
GLOSSARY OF TERMS (cont.)

FTE	Full Time Equivalent
FWCA	Fish and Wildlife Coordination Act
GE	General Expense
GI	General Investigations
GIS	Geographic Information System
HQUSACE	Headquarters, U. S. Army Corps of Engineers
HTRW	Hazardous, Toxic and Radioactive Waste
IWR	U. S. Army Engineer Institute for Water Resources
NMFS	National Marine Fisheries Service
MSC	Major Subordinate Command
NEPA	National Environmental Policy Act
OASA(CW)	Office of the Assistant Secretary of the Army (Civil Works)
ODEP	Office of the Director of Environmental Programs (Army)
O&M	Operation and Maintenance
P&G	Principles and Guidelines
R&D	Research and Development
RCRA	Resource Conservation Recovery Act
SCS	Soil Conservation Service
TSCA	Toxic Substances Control Act
TVA	Tennessee Valley Authority
USACE	United States Army Corps of Engineers
USEPA	United States Environmental Protection Agency USF&WS United States Fish and Wildlife Service
USFS	United States Forest Service
WAP	Wetlands Action Plan
WRDA	Water Resource Development Act



Civil Works Environmental Action Plan

94-R-3



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