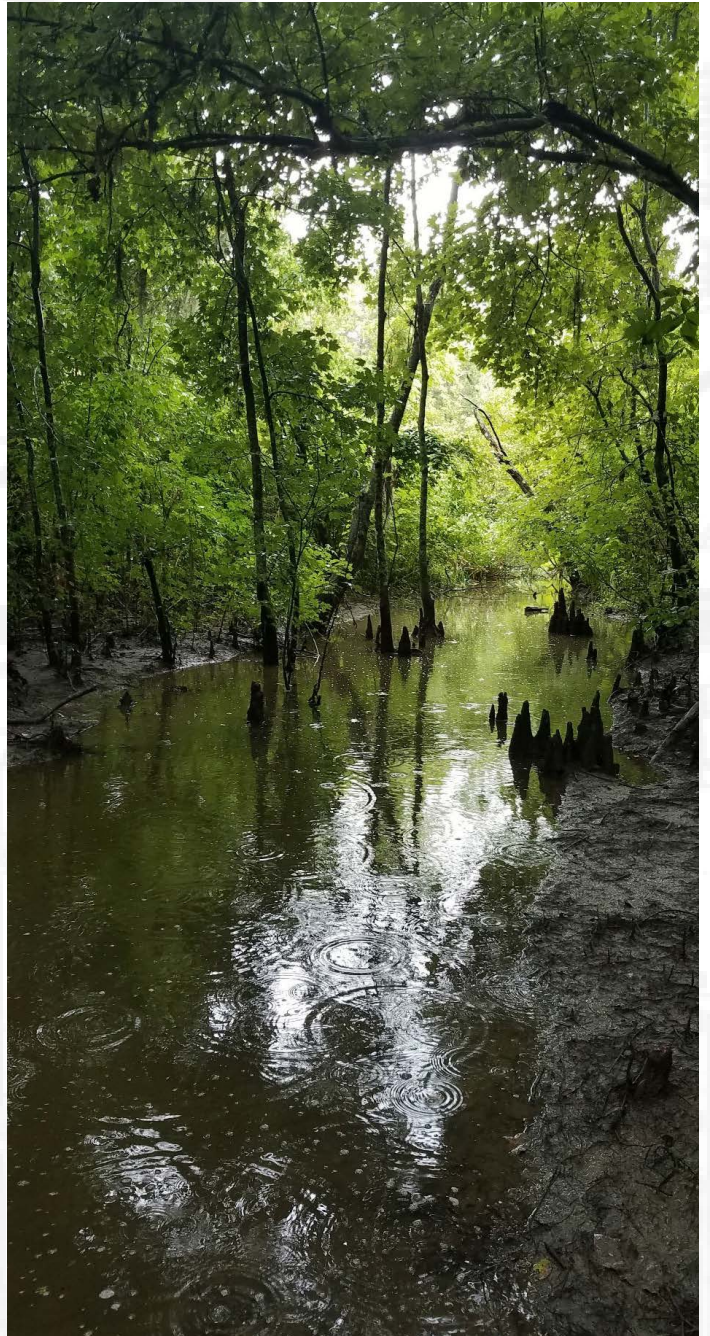
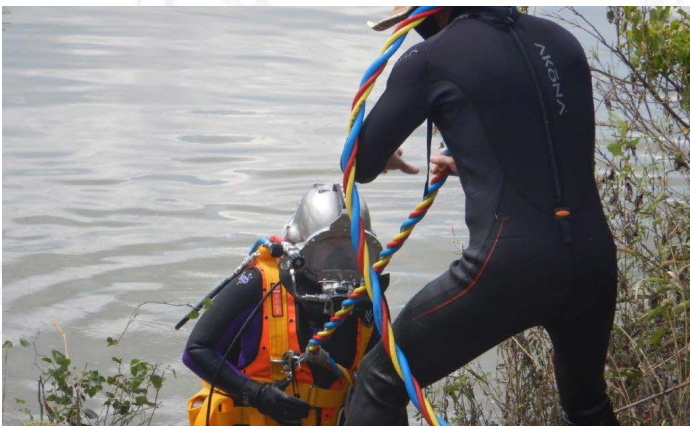


Customer Guide



The U.S. Army Corps of Engineers Planning Program

The U.S. Army Corps of Engineers (USACE) is the federal government's largest water resources development and management agency. The USACE began its water resources program in 1824, when Congress, for the first time, appropriated money for improving river navigation. Since then, the USACE has been involved in improving river navigation, reducing flood damage along rivers, lakes, and the coast. Along with these missions, the USACE generates hydropower, supplies ecosystems, assists in national emergencies, and manages a recreation program. Today, the Corps manages nearly 1,500 water resources projects.

The USACE planning program delivers water resources solutions for the nation by doing the following:

- preparing for and adapting to future water



- resources needs;
- collaborating with our partners and stakeholders with intentional and transparent communication;
- integrating interdisciplinary perspectives, technical analysis and societal values to illuminate decisions;
- applying a scalable, disciplined, and risk-informed process to advise decision makers.

The USACE planning community of practice (PCoP) is comprised of more than 1,000 planners from each USACE district, division, research laboratory and headquarters. Planners serve on multi-disciplined teams to help address the nation's water resources needs using the planning process. Four sub-communities of practice exist within the PCoP: Plan Formulation, Economics, Ecosystem Restoration, and Cultural Resources. In addition, there are several planning centers of expertise advising teams in the development and review of technical aspects of planning and civil works project delivery. The USACE planning process is grounded in the economic and environmental principles and guidelines promulgated in 1983 and set forth in the Planning Guidance Notebook (ER 1105-2-100), as well as the numerous laws and policies that apply to the civil works program and to the USACE missions.

Innovative solutions, systems content and applications of the full range of the USACE programs and authorities are integral to the planning process. The USACE planning process is generally thought of in six main steps:

- Step 1 - Identify problems and opportunities
- Step 2 - Inventory and forecast conditions
- Step 3 - Formulate alternative plans
- Step 5 - Compare alternative plans
- Step 6 - Select a plan

Regional Planning & Environment Division South

Planning plays a vital role in supporting the USACE civil works water resources development mission. Through planning activities, including feasibility studies, Continuing Authorities Program studies, watershed studies, comprehensive/large scale studies, general reevaluation studies, validation studies and other post-authorization change studies, our planners help decision-makers identify water resources problems, conceive solutions to them, and compare the importance of the inevitable conflicting values inherent in any solution.

The Regional Planning & Environment Division South (RPEDS) encompasses the southern portion of the Mississippi Valley Division. It includes the following branches:

- Plan Formulation
- Economics
- Environmental Compliance
- Environmental Planning
- Quality Control & Administration

Troy Constance

Chief, Regional Planning & Environment Division South

Phone number: 504-862-2742

Email address: troy.g.constance@usace.army.mil

RPEDS is a regional office providing planning expertise for the USACE's Memphis District (MVM), Vicksburg District (MVK), and New Orleans District (MVN). RPEDS supports the economic evaluation and assessments for all six districts of the Mississippi River Valley, with team members located within each district. Mr. Constance leads a team that provides quality technical resources, products and services for environmental studies and compliance efforts within the districts. Through his leadership, RPEDS executes comprehensive investigations for flood control, ecosystem restoration, navigation, hurricane and storm damage risk reduction system and watershed studies. He has been with the Corps for 35 years and throughout his tenure, he has served as a hydraulic designer, planner, and a project manager. He is a Civil Engineer graduate of the University of New Orleans and a lifelong resident of Louisiana.



Quality Control & Administration

The Quality Control & Administration Branch focuses on schedule management, resource management, risk management, district quality control (DQC), reviews, and administration of an annual project execution and operating budget. The branch oversees the management of all aspects of the RPEDS program. This includes ensuring funding, workload analysis and forecasting, supplies, travel arrangements, training, and hiring are all accomplished so the other branches can focus on executing technical work. This branch also manages the integration of resources, risks, schedule, and budget to successfully execute an annual operating budget of \$18 million.

Civil works studies undergo several levels of review: DQC, agency technical review (ATR), major support command (MSC) policy review, Office of Waterway Project Review (OWPR), and independent external peer review (IEPR). DQC throughout the development of civil works projects is a critical component of ensuring quality in our product delivery. These interim reviews are typically quick turn-around and require a short, focused effort. The Quality Control & Administration Branch leads the DQC effort and the branch is also led by the Deputy Chief of the Division.



Brandon Davis

Quality Control Section Chief
(601) 631-5961
brandon.l.davis@usace.army.mil

Education:

- M.S. Agriculture and Natural Resource Economics, Mississippi State University (2006)
- B.S. Agriculture and Natural Resource Economics, Mississippi State University (2004)

Area(s) of Expertise:

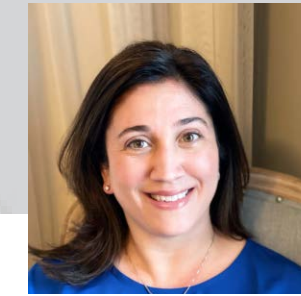
- Agriculture flood risk management
- Dam/Levee failure economic consequences analysis
- Plan Formulation
- NEPA
- Marketing, outreach, and strategic planning

Experience/Positions:

- 4+ years as Environmental Compliance Section Chief and Planning Liaison
- 7 years as Regional Economist

Key Contributions/Projects:

- Helped establish Modeling, Mapping, and Consequence (MMC) Mandatory Center of Expertise Consequence branch.
- Lead for Agriculture flood damage calculations for the 2011 Post-Flood report
- Establishing Regional Planning Quality Assurance Branch
- Lead economist for the Lake Ouachita storage reallocation study, USACE's largest water storage agreement in Arkansas.
- Numerous projects, including: Quiver River, Southeast Arkansas, Pearl River (MS) widening, Yazoo Backwater, Cane River



Jennifer Darville

Technical Writer/Editor
504-812-7295
jennifer.l.darville@usace.army.mil

Education:

- M.A. English (2001); B.A. English and Paralegal Certificate (1999), University of New Orleans

Area(s) of Expertise:

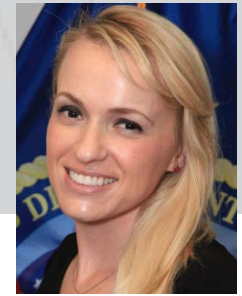
- Reviewing, editing, and writing technical and non-technical docs
- USACE's Civil Works mission and Dam Safety Program
- Civil Works, USACE-HQ, RPEDS, and MMC Production Center policy and regulations
- NEPA and CEQ regulations

Experience/Positions:

- 19+ years technical editor/writer
- 1.5 years public affairs specialist

Key Contributions/Projects:

- Technical editor for Corps Water Management System (CWMS) reports produced by the MMC Production Center (2016 to present)
- Technical editor and writer on MMC Documentation Team in support of USACE's Dam Safety & Critical Infrastructure Protection & Resilience (CIPR) Programs (2014 to present)
- Executive Officer for Task Force Guardian post Hurricane Katrina
- Louisiana Coastal Area Final Near-Term Study Report and Final Programmatic Environmental Impact Statement
- 2011 Post-Flood Report for Northwestern Division
- Coastal Wetlands Planning, Protection, and Restoration Act



Amanda Jones

Technical Writer/Editor
504-862-1108
amanda.jones2@usace.army.mil

Education:

- B.A. Graphic Design, University of New Orleans (2002)

Area of Expertise

- Graphic design and photography
- Technical and news writing/editing
- Marketing, events and communications planning
- Strategic planning

Experience/Positions:

- 3+ years as a visual information specialist & 5 years as a public affairs specialist - Corps of Engineers, New Orleans District
- 10 years as a public affairs officer – Southeast Louisiana Veterans Health Care System, New Orleans
- Organized the 2016 ribbon cutting of the Veterans medical center in New Orleans with 1,000+ attendees and local, regional and national participants
- Served as editor of the Riverside magazine at the New Orleans District, as well as the Bonne Santé and Second Line News at the Veterans medical center
- Corps communications liaison with FEMA/photographer in 2008 flood fight in Fargo



Shawn Vicknair

Deputy Chief,
Regional Planning &
Environment Division
South

504-862-2024

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usace.army.mil

Education:

- M.S. Engineering Management, UNO (2007)
- B.S. Civil Engineering, UNO (2000)

Area(s) of Expertise:

- Supervision
- Schedule Analysis
- Resource and Workload Analysis
- Operating Budget Management
- Program Management
- Study Management
- Project Management
- Policy Review

Experience/Positions:

- 20+ years in various positions as a study manager, project manager, program manager, branch chief, Deputy Chief of PPMD and RPEDS

Key Contributions/Projects:

- Bipartisan Budget Act of 2018 Feasibility Studies and Construction Projects
- Program Management of the Hurricane and Storm Damage Risk Reduction System
- Management of MR&T Program
- Developed Project Controls and Execution Plan for the American Recovery and Reinvestment Act Program
- District Quality Control Standard Operating Procedures
- Business Processes and Division Policies

Plan Formulation



The Plan Formulation Branch identifies problems and opportunities, inventories and forecasts resources, formulates alternative plans, evaluates plan effects, compares effects of alternative plans and selects the best plan. Plan formulation is the art of creating plans to address objectives and constraints and is an integral part of the six-step planning process.

The RPEDS Plan Formulation Branch includes the Watershed Studies Section, Flood Risk Management Studies Section and the Ecosystem Restoration Studies Section.



Tim Axtman
Plan Formulation
Chief
504-862-1921
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usace.army.mil

- Education:**
- B.S. Civil Engineering 1981, South Dakota State University
- Area(s) of Expertise:**
- Hydrologic, hydraulic and sediment modeling; sedimentation analysis
 - Ecosystem restoration planning
- Experience/Positions:**
- 10 years Engineering Division, Hydraulics and Hydrology
 - 28 years Planning/Project Management/RPEDS
 - RPEDS, Senior Plan Formulator 2008-2016
 - Chief of RPEDS, Plan Formulation 2016- to date
- Key Contributions/Projects:**
- Lead Planner on numerous studies including 1993 CWPPRA Louisiana Coastal Wetlands Restoration Plan, Mississippi River Delta Basin
 - 1999 CWPPRA Mississippi River Sediment, Nutrient, & Freshwater Redistribution study
 - 2005 Louisiana Coastal Area (LCA) Ecosystem Restoration study
 - 2006 LACPR Interim Report
 - 2009 LACPR Technical Report



Cherie Price
Watershed Studies Section Chief
504-862-2737
cherie.price@usace.army.mil

- Education:**
- B.S. Civil and Environmental Engineering, University of New Orleans (1997)
- Area(s) of Expertise:**
- Water Resources Certified Planner
 - Certified Agency Technical Reviewer
 - Planning Associate Graduate
 - Hydraulics and Hydrology
 - Coastal Tidal Hydraulics Committee Member

- Experience/Positions:**
- 12 years as a plan formulator in RPEDS
 - 3 years as a supervisor in RPEDS
 - 10 years as a hydraulic engineer in Engineering Division

- Key Contributions/Projects:**
- Initiated the Regional Sediment Management Program at the New Orleans District
 - Served as lead plan formulator on the Mississippi River Hydrodynamic and Delta Management Mega study
 - Led completion of Director's report and led numerous study milestones and draft reports
 - Developed detailed discipline wide study task/check list used as a guide to RPEDS planners to streamline and provide consistency in study execution
 - Successfully achieved the first MVN study exemption and guide teams on developing study exemption packages



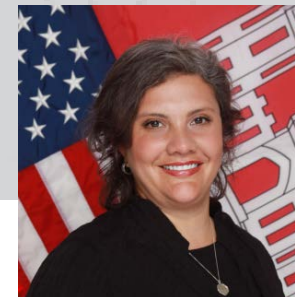
Travis Creel
Flood Risk Management Studies
Section Chief
504-862-1071
travis.j.creel@usace.army.mil

- Education:**
- B.S. Environmental Management Systems

- Area(s) of Expertise:**
- Water Resources Certified Planner
 - Coastal Storm Risk Management, Flood Risk Management, Deep Draft Navigation & Ecosystem Restoration Studies
 - Regional Technical Specialist for Plan Formulation
 - MR&T projects and history
 - GIS application
 - Surface water and groundwater-monitoring and modeling
 - Radiological worker trained
 - Strategic planning and program administrative management

- Experience/Positions:**
- 14+ years as a planning specialist
 - 3+ years with private consultant (CH2MHill) as Field Team Leader/Field Scientist

- Key Contributions/Projects:**
- West Shore Lake Pontchartrain (WSLP) (One of the USACE's first SMART Planning studies)
 - Mega-Project - Coastal Texas Protection and Restoration Feasibility Study.
 - Sabine Pass to Galveston Bay, Texas CSR and ER Study. (FY17 National Planning Award)
 - Mississippi River Ship Channel - Gulf to Baton Rouge, LA.
 - Morganza to the Gulf Post Authorization Change Report



Michelle Boudreaux Meyers
Ecosystem Restoration Studies
Section Chief
504-862-1374
Michelle.l.meyers@usace.army.mil

- Education:**
- M.S. Biology, Marine Ecology, University of Central Florida; B.S. Biology (Minor Chemistry), University of South Florida

- Area(s) of Expertise:**
- Ecosystem restoration planning, evaluation, and assessment
 - Monitoring and adaptive management plan and program development and implementation; Planning, coordinating, leading and integrating activities between project teams, officials, scientists, managers, technical personnel, state and federal agencies; Project management-certified

- Experience/Positions:**
- 16+ years' experience in water resource planning
 - Plan Formulation, Project Management and Environmental Planning including work with Jacksonville District, New Orleans District and Mobile District
 - 8 years with United States Geological Survey, National Wetlands Research Center, Coastal Restoration Assessment Branch-Ecologist & Adaptive Management and Monitoring Program Technical Lead

- Key Contributions/Projects:**
- St. Tammany Parish, Flood Risk Reduction Feasibility Study; Louisiana Coastal Area Restoration Program; Mississippi Coastal Improvements Program; Deep Water Horizon Oil Spill Programs, RESTORE Act, National Resource Damage Assessment, National Fish and Wildlife Foundation Comprehensive Everglades Restoration Plan interagency Restoration Coordination and Verification

Economics

The Economics Branch includes a total of 16 economists and has experience in conducting many large-scale economic studies in the following areas:

- Flood Risk Management (including Nonstructural Evaluations)
- Coastal Storm Risk Management
- Dam and Levee Safety/Consequence Analysis
- Ecosystem Restoration
- Inland and Deep Draft Navigation

Our Economics Branch has been nationally recognized by performing analyses for other districts outside of the Mississippi Valley Division, including the areas of:

- Norfolk,
- New York,
- Galveston (Coastal Texas),
- Los Angeles,
- Hawaii,
- Anchorage.



The Economics Branch includes the Navigation Section, Flood Risk Management Coastal Section, and the Flood Risk Management Riverine Section.



Mark Haab

Economics Branch Chief
504-862-2497
mark.e.haab@usace.army.mil

Education:

- M.A. - Economics, University of New Orleans (1982)
- B.A. - Economics, University of New Orleans (1980)

Area(s) of Expertise:

- Inland Navigation Studies

Experience/Positions:

- 3 years as the Regional Economics Branch Chief, New Orleans District
- 9 years as a Regional Supervisory Economist, New Orleans District
- 2 years as the Navigation Regional Technical Specialist, New Orleans District
- 19 years as a Regional Economist, New Orleans District
- ATR Certified for Inland and Deep Draft Navigation Studies

Key Contributions/Projects:

- Formulated the methodology to be used in economic analysis and identified and developed data sources as input to the analysis
- Acted as Agency Technical Reviewer on Great Lakes Navigation System Supplemental Reconnaissance Report and the Economic Update of Chickamauga Lock
- Major studies include: IHNC Lock Replacement Feasibility Study, MRGO Reevaluation Study, Upper Mississippi River Feasibility Study, Port of Iberia Channel Deepening Feasibility Study, Bayou Sorrel Lock Replacement Feasibility Study, Leon Theriot Lock Post Authorization Change Study, IHNC Lock, Traffic Reevaluation Study



Evan Stuart

Flood Risk Management Coastal Section Chief
314-331-8042
evan.m.stuart@usace.army.mil

Education:

- Master of Infrastructure Planning & Management, University of Washington, Seattle (2018)
- B.S. – Economics & Finance, Southern Illinois University Edwardsville (2013)
- Certified Floodplain Manager (2015)

Area(s) of Expertise:

- Flood Risk Management Modeling (HEC-FDA, HEC-FIA, HEC-LifeSim)
- Geospatial Economic Analysis (ArcGIS)
- Floodplain Management (NFIP, CRS, Technical Planning)

Experience/Positions:

- <1 year as Economics Section Chief
- 2.5 years as Regional Technical Specialist
- 7 years as a Regional Economist, St. Louis District
- ATR Certified for Dam & Levee Safety, Riverine & Coastal Flood Risk Management

Key Contributions/Projects:

- MVS-2 Risk Cadre Economist for Life Safety Studies (American River, Benbrook, North Springfield, Arcibo)
- Lead Economist for various economic updates (Wood River, East St. Louis, Bois Brule)
- Lead Economist for various feasibility level studies (Lowell Creek, North DeSoto, South Central Coastal Louisiana, Amite River & Tribs, SELA Orleans)
- Instructor for PROSPECT #355 (Project Management in USACE) & PROSPECT #077 (Planning Essentials)



Diane Karnish

Flood Risk Management Riverine Section Chief
309-794-5006
diane.e.karnish@usace.army.mil

Education:

- B.S. - Economics, Iowa State University (1988)
- B.B.A. - Management, Iowa State University (1987)

Area(s) of Expertise:

- Technical and management experience in planning; plan formulation; environmental planning; environmental compliance and impact assessment; programs and project management; and economics
- Plan formulation, flood risk management, environmental compliance, project management, major rehabilitation, social and economic impact assessment, BRAC impact assessment, incremental cost analysis, NEPA, and noise impact assessment

Experience/Positions:

- 23 years as a Regional Supervisory Economist, Rock Island, St. Louis, Walla Walla Districts
- 8 years as a Regional Economist, Omaha District
- ATR Certified for Inland Flood Risk Management and Ecosystem Restoration

Key Contributions/Projects:

- Other Social Effects (OSE) for the Cedar Rapids Flood Risk Management Study
- Participated in regional teams (NWD's Economics and Plan Formulation boards) and national teams (recognized by General Van Antwerp as a member of the team developing and promoting prospect course #950, Native American Environmental and Cultural Resources Training)
- Studies include: the Walla Walla Watershed Study, Upper Mississippi River Navigation Study, Chesterfield FRM Feasibility Study and the Lower Monumental Major Rehabilitation Report

Environmental Planning

The Environmental Planning Branch conducts investigations to determine environmental impacts and benefits associated with flood control, navigation and environmental restoration investigations and projects.

Through environmental planning, we strive to do the following:

- achieve environmental sustainability,
- recognize the interdependence of life and the physical environment,
- seek balance and synergy among human development and natural systems,
- accept corporate responsibility and accountability under the law,
- seek ways and means to assess and mitigate cumulative impacts, build and share an integrated knowledge base,
- respect the views of others.



This branch is responsible for environmental reviews related to early stage planning for civil works infrastructure projects related to flood control and storm water damage reduction and ongoing environmental reviews through construction. Environmental reviews are performed in compliance with major environmental statutes, such as the National Environmental Policy Act, Endangered Species Act, National Historic Preservation Act, Marine Mammals Protection Act, and others. Given the diverse natural and human environment resources that have to be considered in our reviews, we must have a multi-discipline team that are technical experts in terrestrial and aquatic biology, fishery biology, ecology, cultural resources, historic architecture, air and water quality, aesthetics, recreation, environmental justice, and community and public involvement. Staff regularly coordinate or consult with the U.S. Fish and Wildlife Service, National Marine Fisheries Service, National Park Service, State Historic Preservation Offices, Advisory Council for Historic Preservation, federally-recognized Native American tribes, U.S. Forest Service, and numerous other federal and state agencies in the three USACE Districts that we serve.

The RPEDS Environmental Planning Branch includes a Cultural & Social Resources Section and Environmental Studies Section.

The Environmental Studies Section is normally the lead for our environmental reviews and will coordinate and consult with various aforementioned agencies, non-government organizations, and the interested public. This work typically involves collecting information on various natural resources' existing conditions, analysis of impacts to resources, biological assessments for threatened and endangered species and determining requirements for any monitoring and mitigation, all of which is captured in our environmental assessments and environmental impact statements. Other related work may include mitigation, monitoring and adaptive management plans. The Cultural & Social Resources Section is responsible for all historic preservation, cultural resources, and other social effects like environmental justice associated with human environment resources. According to the extent of the project and USACE districts that might be involved, consultation can occur with up to eight State Historic Preservation Offices and 22 federally-recognized Native American tribes. The program of work will often involve the preparation of either a memorandum of agreement or programmatic agreement in defining how historic properties will be considered during the planning phase, identified prior to construction, treated during construction, and mitigated for impacts or curated as needed.



Eric Williams
Environmental
Planning Chief
504-862-2862
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usace.army.mil

Education:

- B.A. Anthropology; M.S. Geography/Geographic Information Sciences

Area(s) of Expertise:

- Cultural and Natural Resource Management, Geographic Information Systems, Remote Sensing, and Predictive Modeling
- NEPA, NHPA, Environmental Justice, NAGPRA, Government to Government consultation with American Indian Tribes, planning, environmental review and compliance
- Cultural Resources management under 33 CFR 325 "Appendix C" in support of Regulatory Permit application reviews

Experience/Positions:

- 25+ years as a NEPA and NHPA specialist; managing resource programs and public lands management with the U.S. Marine Corps, U.S. Bureau of Land Management, U.S. Forrest Service, and U.S. Army Corps of Engineers
- 10+ years with RPEDS - management for major Civil Works planning and environmental reviews; Regulatory Permit reviews; NHPA Programmatic Agreements and Memorandums of Agreement; NEPA compliance documentation
- 6 years as Archaeologist for Marine Corps Bases, Japan

Key Contributions/Projects:

- Analysis of impacts to Environmental Justice, Soils and Prime/Unique Farmlands, Cultural Resources, and NEPA documentation for Hurricane Storm Damage and Risk Reduction System (HSDRRS) and major Civil Works projects to include: •WBV/MRL Co-Located and Resilient Features
- Larose to Golden Meadow
- Morganza to the Gulf
- Southwest Coastal Louisiana Study
- West Shore Lake Pontchartrain Hurricane Risk Reduction Project
- New Orleans to Venice//Non-Federal Levees Hurricane Protection Project
- Bipartisan Budget Act of 2018 Feasibility Studies and Construction Projects





Jason Emery

Cultural and Social Resources
Analysis Section Chief
504-862-234
jason.A.Emery@usace.army.mil

Education:

- M.A. Anthropology, Louisiana State University (2004)
- B.A. - Anthropology, University of the South (1998)

Area(s) of Expertise:

- Agency and Tribal Coordination
- Public Involvement
- NEPA & NHPA Compliance Documentation
- Interpretation of Historic Sites

Experience/Positions:

- 20 years of Cultural Resource Management Experience
- 2.5 years as the RTS for Cultural Resources, MVD, & MVN Tribal Liaison
- 2 years as an Archaeologist, MVN ATR Certified for Cultural Resources Review

Key Contributions/Projects:

- Provide technical guidance to a range of staff regarding Tribal Consultation & NHPA Compliance.
- Acted as Agency Technical Reviewer for projects in SPD, NAD and SAD.
- Major studies include: Mississippi River Levee Supplemental EIS, II, Lower Santa Cruz River Feasibility Study, IHNC Lock Replacement Feasibility Study, and Tribal Support for South Central Costal Flood Risk Management Feasibility Study, the Upper Barataria Flood Risk Management Feasibility Study, and the Mid-Barataria and the Mid-Breton Sediment Diversion EISs.



Elizabeth Behrens

Coastal Environmental Studies
Section Chief
504-862-2045
elizabeth.h.behrens@usace.army.mil

Education:

- B.S. Wildlife Management; minor in Fisheries, Louisiana State University

Area(s) of Expertise:

- NEPA, environmental compliance, and environmental planning for civil works projects
- Mitigation planning, construction, and monitoring
- Interagency coordination and ESA compliance & consultations
- Collaboration and complex problem-solving

Experience/Positions:

- 19+ years as a biologist and NEPA specialist in RPEDS
- 3.5 years as a supervisory biologist in RPEDS
- 8.5 years LDWF Biologist involved in fisheries research, fish hatchery and public land management

Key Contributions/Projects:

- Lead Environmental Manager responsible for completing numerous LPV HSDRRS NEPA compliance documents and extensive environmental coordination under Alternative Arrangements to NEPA
- Mitigation Lead responsible for the planning, coordination, & execution of all HSDRRS, TFG/TFU, and original WBV and LPV HPS Mitigation



Patrick Smith

Riverine Environmental Studies
Section Chief
504-862-1583
patrick.w.smith@usace.army.mil

Education:

- B.S. Biology, Augusta State University
- M.S. Earth and Environmental Sciences
- PhD Engineering and Applied Sciences

Area(s) of Expertise:

- Aquatic ecology and fisheries
- NEPA and environmental compliance
- Agency coordination
- Ecological modeling
- GIS

Experience/Positions:

- 15 years of experience in biology and environmental compliance that includes not-for-profits, consulting, universities, National Park Service, and Bureau of Land Management
- 5+ years as a biologist at RPEDS

Key Contributions/Projects:

- National lead for eight ecological models with two additional models currently under review
- Wetland value assessments for the Maurepas Diversion and West Shore Lake Pontchartrain
- Environmental Manager for CWA 404(c) designated site hydrologic restoration project

Environmental Compliance

The Environmental Compliance Branch ensures that the USACE construction and maintenance projects are compliant with all applicable environmental statutes, regulations, and policies. The branch has extensive experience and expertise related to the National Environmental Policy Act, Endangered Species Act, Marine Mammals Protection Act, Clean Water Act, Clean Air Act, Bald and Golden Eagle Act, National Historic Preservation Act, and various other environmental laws. The branch specializes in preparation of NEPA documents (environmental impact statements and environmental assessments), Section 404(b)(1) evaluation reports, ESA biological assessments, and stormwater management plans; coastal zone consistency determinations; hazardous, toxic, and radioactive waste assessments; endangered/threatened species surveys and consultation; habitat assessments and impact evaluations; and mitigation planning and monitoring.



The Environmental Compliance Branch includes a team of scientific divers experienced in qualitative and quantitative freshwater mussel surveys and aquatic habitat investigations. The dive team has conducted surveys in large and small rivers and various aquatic habitats throughout the country. The dive team can work in a variety of environmental conditions, including cold weather or degraded aquatic environments. The dive team is versed in the USACE Safety and Health Requirements Manual, EM 385-1-1, and has completed and maintained proficiency in the following: Corps Working Diver certification program, Oxygen First Aid for Scuba Diving Injuries, Advanced Oxygen First Aid for Scuba Diving Injuries, On-site Neurological Assessment for Divers Course, and Adult AED/CPR. Although the team is primarily focused on scientific diving missions, they occasionally perform small construction or repair dives and have experience in performing dive inspections for contractor diving operations. The dive team can offer a quick response time and can shepherd a project from “cradle to the grave.”

The Environmental Compliance Branch includes the Coastal Compliance Section located in New Orleans, Lower Delta Compliance Section located in Vicksburg, and Upper Delta Compliance Section located in Memphis.





Edward Lambert
Environmental
Compliance Chief
901-544-0707
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- Education:**
- B.G.S (Natural Science), Southeastern Louisiana University
 - M.S. Biology, Southeastern Louisiana University
- Area(s) of Expertise:**
- Biological/ecological impact assessment
 - Environmental and cultural resources compliance (NEPA, Endangered Species Act, Clean Water Act, NHPA, etc.)
 - NEPA documentation (EISs & EAs)
 - Water resources planning
 - Ecosystem restoration
- Experience/Positions:**
- Total of 31 years in environmental compliance/planning
 - 15 years as USACE supervisory biologist
 - 16 years as USACE biologist
- Key Contributions/Projects:**
- Preparation and oversight of numerous NEPA documents and 404(b)(1) evaluation reports
 - Development of wetland restoration plans
 - Environmental planning and compliance on major water resources projects, including two large groundwater conservation/water supply projects
 - Endangered/threatened species consultation on numerous projects
 - Project coordination with state and federal agencies and media
 - Environmental policy guidance



Mark Smith
Upper Delta Compliance Section
Chief
901-544-0670
mark.smith@usace.army.mil

- Education:**
- B.A. Natural History Interpretation;
 - M.A. Biology
- Area(s) of Expertise:**
- NEPA issues & ESA compliance
 - 21 years interpreting laws, regulations & policies affecting USACE missions
 - 21 years conducting benthic sampling events
- Experience/Positions:**
- 20+ years USACE NEPA and ESA specialist
 - 25+ years conducting benthic sampling events, including freshwater mussel surveys and translocations
 - 10+ years chief of the Upper Delta Compliance Section
 - 19 years dive team chief

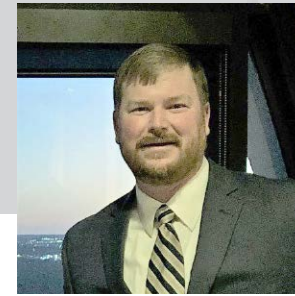
- Key Contributions/Projects:**
- Initiated a scientific diving team in 2002 to assess the potential effects of the ongoing missions on endangered freshwater mussels.
 - Written numerous NEPA documents and several biological assessments for Section 7 consultations with the USFWS.
 - In 2018, completed work on a conservation plan for the fat pocketbook mussel in the St. Francis River basin in close coordination with the USFWS as a result of 15 years of RPEDS work and assessments while still completing the USACE mission.



Michael Brown
Coastal Compliance Section Chief
504-862-1570
michael.t.brown@usace.army.mil

- Education:**
- B.S. Biology, Southeastern Louisiana University (1998)
- Area(s) of Expertise:**
- NEPA compliance (EA/EIS)
 - Threatened & Endangered Species Coordination
 - Wetlands Section 10/404 Coordination
 - Section 408 Compliance
- Experience/Positions:**
- 3 years Environmental Resources Specialist - RPEDS
 - 12 years Biologist - RPEDS
 - 3 years as an Environmental Resources Specialist - Regulatory, MVN
 - 3 years as an Environmental Consultant – Private Sector
 - Over 20 years of combined environmental compliance experience.

- Key Contributions/Projects:**
- Provided technical and procedural support and reviewed NEPA work items for the Mississippi River levees, SEIS II, which covers MVN, MVK, and MVM districts.
 - Managed NEPA compliance documents for the Atchafalaya Basin Construction Project, which included levee enlargements, floodwalls, channel training, and pump station repairs.
 - Coordinated multiple Section 7 of the Endangered Species Act Emergency Consultations for the Bonnet Carre' Spillway Operations.
 - Managed and reviewed numerous Section 408 permissions.



Dan Moore
Lower Delta Compliance Section
Chief
601-631-5008
daniel.r.moore@usace.army.mil

- Education:**
- B.A. Agriculture Science; M.A. Agronomy
- Area(s) of Expertise:**
- Soil and Water Quality, Plant Science, Wetland Mitigation
 - NEPA, planning, environmental review, and compliance work
- Experience/Positions:**
- 13 years as a NEPA specialist; managing environmental compliance for work performed within the Mississippi Valley Division
 - 12 with RPEDs- planning and environmental compliance; completed details in Regulatory and Project Management
 - 4 years as Floodplain Manager
- Key Contributions/Projects:**
- Mississippi River Levees SEIS, Yazoo Backwater SEIS
 - Interagency Environmental Coordinator for Channel Improvement Program

Specialists



Mike Thron

Senior NEPA Specialist
901-544-0708

john.m.thron@usace.army.mil

Education:

- B.S. and M.S. Biology, University of Memphis (2003 and 2008, respectively)

Area(s) of Expertise:

- NEPA, environmental compliance, and environmental planning for USACE Civil Works
- Interagency coordination and ESA compliance & consultations
- Ecological models, habitat assessments, impact/benefit analyses, & biological monitoring
- Freshwater mussel surveys (certified USACE Diver), interior least tern surveys, endangered bat surveys, fish and aquatic macroinvertebrate sampling, and wetland mitigation

Experience/Positions:

- 19+ years of experience in environmental compliance and planning for USACE Civil Works
- Certified ATR for Environmental Compliance

Key Contributions/Projects:

- Lead NEPA Coordinator and biologist for a complex, regional environmental impact statement (EIS) for flood risk management activities along the Mississippi River Levees encompassing over 100 items of work across three USACE districts
- Lead environmental manager for Memphis District navigation activities along the lower Mississippi River with over 12 years of experience in large scale interagency coordination across six states and the development/incorporation of Endangered Species Act Section 7(a)(1) Conservation Plan activities into the program
- Lead biologist for multiple projects encompassing flood risk management, ecosystem restoration, navigation, and multi-purpose authorities including the design and use of numerous ecological models in alternative analyses and mitigation planning
- Active member of several national and regional interagency teams for endangered species, including the federally endangered fat pocketbook mussel, federally



Joshua Koontz

Biologist/Environmental Planning RTS
901-544-3975

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Education:

- B.S., M.S., Biology, University of Memphis (2005, 2008)

Area(s) of Expertise:

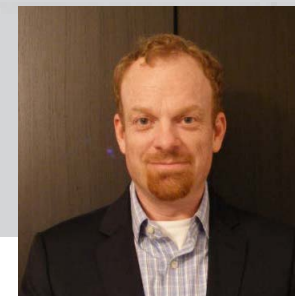
- NEPA, ESA, CWA, etc., planning, environmental review, and compliance work
- Wetland identification, impact assessment, Section 404(b)(1) Evaluations
- Environmental mitigation development consistent with USACE policy and planning guidance
- Environmental habitat assessment planning and surveys

Experience/Positions:

- 13 years of NEPA and USACE Civil Works planning and environmental compliance experience
- 12 years USACE working diver
- Certified Wildland Firefighter (Type II)

Key Contributions/Projects:

- NEPA coordinator for the St. Johns and New Madrid Floodway Project
- Environmental manager for numerous MRL and St. Francis Basin flood risk management projects
- Lead Biologist for the Lower Santa Cruz River Feasibility Study
- Mitigation planning development for the 2020 MRL SEIS II and Yazoo Backwater Basin Study
- Participated in 2017 and 2019 St. Francis Basin Flood Fight operations



Andy MacInnis

Water Resources Certified Planner/
Regional Technical Specialist
504-862-1062

andrew.d.macinnes@usace.army.mil

Education:

- B.S. – GIS/Remote Sensing; Utah State University (1998)
- M.A. – Environmental Studies & Policy; University of Illinois, Springfield (2013)

Area(s) of Expertise:

- SMART Planning
- ATR Lead/Review
- Independent External Peer Review
- Nonstructural Planning
- Planning Mentor
- Stakeholder Engagement

Experience/Positions:

- 17 years Water Resource Planning
- Senior Water Planner for HQUSACE
- Acting ECO-PCX Operating Director
- Acting FRM-PCX Technical Director
- ATR certified for Plan Formulation Review
- Planning Capstone Course Instructor
- Nonstructural Prospect Course Instructor

Key Contributions/Projects:

- ATR Lead/Plan Formulation reviewer for studies in all MSCs
- Planning Lead for Southwest Coastal
- Planning Lead for Lower Santa Cruz River
- Planning Lead for LCA Projects
- Planning Mentor for Miami-Dade County Backbay
- Planning Mentor for South San Francisco Bay Shoreline Phase II



Tammy Gilmore

Senior NEPA Specialist/Biologist
504-862-1002

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Education:

- B.S. Biology, Southeastern Louisiana University (2008)

Area(s) of Expertise:

- NEPA, environmental planning for USACE Civil Works
- Interagency coordination and MBTA, MMPA, and ESA compliance & consultations
- Habitat assessments, impact/benefit analyses, & biological monitoring

Experience/Positions:

- 12+ years of experience in environmental planning for USACE Civil Works

Key Contributions/Projects:

- Lead NEPA Coordinator and biologist for many mitigation projects in the New Orleans district
- Provide technical guidance to a range of staff regarding NEPA compliance, ESA, MBTA, and MMPA coordination
- Provide technical and procedural support and review NEPA work items for MVN, MVK, and MVM districts.
- Conduct District Quality Control reviews for RPEDS districts
- Major projects: Multiple HSDRRS projects, MRGO Ecosystem Restoration Project, Houston Ship Channel Expansion Channel Improvement Project (Mega Study), Yazoo Area Pump Project, Bipartisan Budget Act of 2018 Feasibility Studies and



Britt Corley

Regional Economist/Consequence Specialist
651-290-5177

brittanie.a.corley@usace.army.mil

Education:

- B.A. – Economics, University of Illinois Chicago (2016)

Area(s) of Expertise:

- Flood Risk Management and Coastal Storm Risk Management modeling (HEC-FDA)
- Consequence modeling (HEC-LifeSim)
- Geospatial analysis (ArcGIS)

Experience/Positions:

- 5 years as Regional Economist
- 4 years as Consequence Specialist
- ATR Certified for Coastal Storm Risk Management and Inland Flood Risk Management
- Consequence Elicitation Lead Facilitator

Key Contributions/Projects:

- New Orleans Risk Cadre Lead Consequence Specialist - Lake Pontchartrain and Vicinity/ West Bank and Vicinity General Re-Evaluation Report Semi-Quantitative Risk Assessments, Hurricane and Storm Damage Risk Reduction System National Flood Insurance Program Semi-Quantitative Risk Assessment with elicitation of local emergency managers
- Major studies: Norfolk Coastal Storm Risk Management Feasibility Study, Coastal Texas Protection and Restoration Feasibility Study, Morganza to the Gulf of Mexico Economic Update, Amite River and Tributaries Feasibility Study

Partnering with the USACE: Planning Assistance to States, Tribes and Communities

The USACE is the federal government's largest water resources development and management agency. It began its water resources program in 1824 when Congress directed the USACE to survey and improve the nation's river navigation systems. In the 20th century, the USACE became the lead federal flood control agency and significantly expanded its civil works activities, becoming a major provider of hydroelectric energy and the country's leading provider of recreation. In the late 1960s, the USACE civil works program added aquatic ecosystem restoration to its primary mission areas of flood risk management and navigation. Today, in addition to its primary missions, the USACE civil works program implements ecological and cultural resources management programs at its water resources projects and regulates certain activities in the nation's wetlands.



hydroelectric energy and the country's leading provider of recreation. In the late 1960s, the USACE civil works program added aquatic ecosystem restoration to its primary mission areas of flood risk management and navigation. Today, in addition to its primary missions, the USACE civil

works program implements ecological and cultural resources management programs at its water resources projects and regulates certain activities in the nation's wetlands.

The USACE works with state, tribal and local governments to provide or coordinate technical assistance and engineering expertise through a variety of programs.

There are two types of planning assistance offered through the USACE Planning Assistance to States (PAS) program: comprehensive plans and technical assistance.

The PAS program can assist in the development of state comprehensive plans, including planning for the development, use and conservation of the water and related resources of drainage basins, watersheds, or ecosystems located within the boundaries of that state. Comprehensive plans extend across state boundaries, provided both states agree.

Technical assistance provided through the PAS program includes support of planning efforts related to the management of state water resources. This support includes the provision and integration of hydrologic, economic, or environmental data and analysis in support of the state's water resources management and related land resources development plans identified in the state water plan, or another state planning document related to water resources management.

Any state, or group of states, may partner with the USACE under the PAS program. Federally-recognized tribes and the U.S. territories are also eligible partners in the PAS program. PAS program activities are cost shared (50 percent) with the study partner, and voluntarily contributed funds in excess of cost share may be provided by the non-federal partner.



Partnering with the USACE: Continuing Authorities Program (CAP)

Under the Continuing Authorities Program (CAP), the USACE is authorized to plan, design and construct certain types of water resource and ecosystem restoration projects without additional and specific congressional authorization. The purpose is to more quickly implement projects of limited scope and complexity.

This program is comprised of eight types of projects for our region, each with its own project authority. With all CAP projects, the initial feasibility study is 100 percent federally funded up to \$100,000. If the feasibility study exceeds that limit, the sponsor must contribute 50 percent of the exceeding study cost. For this reason, the local sponsor must be a non-federal entity with the ability to raise revenue sufficient to satisfy these requirements.



**Small Flood Control
(Section 205 of the 1948 Flood Control Act)**

This authority provides for local protection from flooding by the construction or improvement of flood control works, such as levees, channels and dams.

Nonstructural alternatives are also considered and may include measures such as installation of flood warning systems, raising and/or flood-proofing of structures and relocation of flood-prone facilities.

Authority & Scope: Section 205 of the 1948 Flood Control Act, as amended, provides

authority for the Corps of Engineers to develop and construct small flood control projects. A project is adopted for construction only after detailed investigations clearly show the engineering feasibility and economic justification of the improvement. Each project is limited to a federal cost share of not more than \$10,000. This federal limitation includes all project-related costs for feasibility studies, planning, engineering, construction, supervision and administration.

How to Request Assistance: The USACE can initiate an investigation of a prospective small project upon receipt of a request from a sponsoring agency fully empowered under state law to provide the required local cooperation.

Division of Work Responsibility: The federal flood control project alleviates major flooding problems by means of reservoirs, local protection works, or by

combinations of both. A local protection project may consist of one or more of the following activities:

- channel enlargement;
- realignment or paving;
- obstruction removal;
- levee and wall construction;
- bank stabilization.

The USACE would oversee project construction. Maintenance and operation of the project would be the responsibility of the local sponsor. Utility relocations and alterations of buildings, utilities, highways, bridges and special facilities are entirely local responsibilities to be accomplished at the sponsor's expense. The sponsor must also provide all lands, easements, rights-of-way, relocations and disposal areas necessary for the construction of the project.

Local Sponsor Responsibility: The local sponsor must be a municipality or public agency fully authorized under state laws to give such assurance and financially



capable of fulfilling all measures of local cooperation.

A feasibility cost-sharing agreement (FCSA) must be executed with the sponsoring agency if the feasibility study exceeds \$100,000. The sponsor must contribute

50 percent of the study cost exceeding \$100,000 in accordance with the FCSA.

Upon study completion, a formal assurance of local cooperation and partnership must be executed with the sponsoring agency. This is done through a project partnership agreement (PPA). In accordance with the PPA, the sponsor must contribute 5 percent of the total project cost in cash. If the value of lands, easements, rights-of-way, relocations, and disposal areas plus the cash contribution do not equal or exceed the minimum of 35 percent of the total project costs, or maximum of 50 percent of total project costs, the sponsor must pay the additional amount necessary so that the sponsor's total contribution equals the 35 percent minimum or up to 50 percent maximum of total project costs required.

The sponsoring agency must normally agree to the following:

- Provide without cost to the United States all lands, easements, rights-of-way, relocations and disposal areas necessary for the construction and subsequent operation and maintenance of project.
- Provide without cost to the United States all necessary alterations of buildings, utilities, highways, bridges, sewers and related and special facilities.
- Hold and save the United States free from damages due to the construction and subsequent maintenance of the project, except for damages due to the fault or negligence of the government or its contractors.



- Maintain and operate the project works after completion without cost to the United States in accordance with regulations prescribed by the Secretary of the Army.
- Prevent future encroachment, which might interfere with proper functioning of the project for flood control.
- Assume responsibility for all costs in excess of the federal cost limitation of \$10,000,000.
- Provide guidance and leadership in preventing unwise future development of the flood plain by use of appropriate flood plain management



techniques to reduce flood losses.

- Provide a cash contribution of 5 percent of the project cost.
- If the value of the sponsor's contribution above does not equal or exceed the minimum of 35 percent of total project costs or maximum of 50 percent of total project costs, provide a cash contribution to make the sponsor's total contribution equal to the 35 percent minimum or up to 50 percent maximum of total project costs required.

**Emergency Stream Bank and Shoreline Projection
(Section 14 of the 1946 Flood Control Act)**

This authority is intended to prevent erosion damage to highways, bridge approaches, public works and other nonprofit facilities by the emergency construction or repair of stream bank and shoreline protection works.

Authority & Scope: Section 14 of the 1946 Flood Control Act provides authority for the USACE to develop and construct emergency stream bank and shoreline protection projects to prevent erosion damages to endangered highways, highway bridge approaches, public and private nonprofit schools and hospitals and other nonprofit public facilities. Each project is limited to a federal cost of \$5,000,000.

How to Request Assistance: An investigation of a prospective small emergency stream bank or shoreline project under Section 14 can be initiated upon receipt of a request from a sponsoring agency empowered under state law to provide required local cooperation.

Local Sponsor Responsibility: A feasibility cost-sharing agreement (FCSA) must be executed with the sponsoring agency if the feasibility study exceeds \$100,000 and must contribute 50 percent of the study cost exceeding \$100,000.



Upon completion of the feasibility study, formal assurance of local cooperation and partnership must be executed with the sponsoring agency. This is done through a project partnership agreement (PPA). The local sponsor must be a municipality

or public agency fully authorized under state laws to give such assurance and financially capable of fulfilling all measures identified in the PPA. The sponsor must contribute 5 percent of the total project cost in cash. If the value of lands, easements, rights-of-way, relocations and disposal areas, plus the cash contribution do not equal or exceed the minimum of 35 percent of total project costs or maximum of 50 percent of total project costs, the sponsor must pay the additional amount necessary so that the sponsor's total contribution equals the 35 percent minimum or up to 50 percent maximum of total project costs required.

The sponsoring agency must agree to the following:

- Provide without cost to the United States all lands, easements, rights-of-way, relocation and disposal areas necessary for the construction and subsequent operation and maintenance of the project.
- Hold and save the United States free from claims for damages that may result from construction and subsequent maintenance of the project, except for damages due to the fault or negligence of the United States or its contractors.
- Assume full responsibility of all project costs in excess of the federal cost limitation of \$5,000,000.
- Assure maintenance and repair during the useful life of the works as required to serve the project's intended purpose.
- Provide a cash contribution of 5 percent of the project cost.
- If the value of the sponsor's contribution above does not equal or exceed the minimum of 35 percent of total project costs or a maximum of 50 percent of total project costs, provide a cash contribution to make the sponsor's total contribution equal to the 35 percent minimum or up to 50 percent maximum of total project costs required.

**Snagging and Clearing for Flood Control
(Section 208 of the 1954 Flood Control Act)**

This authority provides for location protection from flooding by channel clearing and excavation, with limited embankment construction by use of materials from clearing operation only.

Authority and Scope: Section 208 of the 1954 Flood Control Act provides for the USACE to make improvements for flood control by removing accumulated snags and other debris, and clearing and straightening of the channels in streams in the interest of flood control. Each project is limited to a federal cost of not more than \$500,000. This federal cost limitation includes all project-related costs for feasibility studies, planning, engineering, construction, supervision and administration.

How to Request Assistance: The USACE can initiate an investigation of a small snagging and clearing project upon receipt of a request from a prospective sponsoring agency fully empowered under state law to provide required local cooperation.

Local Sponsor Responsibility: The local sponsor must be a municipality or public agency fully authorized under state laws to give such assurance and financially capable of fulfilling all measures of local cooperation.

A feasibility cost-sharing agreement (FCSA) must be executed with the sponsoring agency if the feasibility study exceeds \$100,000. The sponsor must contribute 50 percent of the study cost exceeding \$100,000 in accordance with the FCSA.

Upon study completion, a formal assurance of local cooperation and partnership must be executed with the sponsoring agency. This is done through a PPA. In accordance with the PPA, the sponsor must contribute 5 percent of the total project cost in cash. If the value of lands, easements, rights-of-way, relocations, and disposal areas plus the cash contribution do not equal or exceed the minimum of 35 percent of the total project costs, or maximum of 50 percent of total project costs, the sponsor must pay the additional amount necessary so that the sponsor's total

contribution equals the 35 percent minimum or up to 50 percent maximum of total project costs required.

The sponsoring agency must normally agree to the following:

- Provide without cost to the United States all lands, easements, rights-of-way, relocations and disposal areas necessary for the construction and subsequent operation and maintenance of project.
- Provide without cost to the United States all necessary alterations of buildings, utilities, highways, bridges, sewers and related and special facilities.
- Hold and save the United States free from damages due to the construction and subsequent maintenance of the project, except for damages due to the fault or negligence of the government or its contractors.
- Maintain and operate the project works after completion without cost to the United States in accordance with regulations prescribed by the Secretary of the Army.
- Prevent future encroachment, which might interfere with proper functioning of the project for flood control.
- Assume responsibility for all costs in excess of the federal cost limitation of \$10,000,000.
- Provide guidance and leadership in preventing unwise future development of the flood plain by use of appropriate flood plain management techniques to reduce flood losses.
- Provide a cash contribution of 5 percent of the project cost.
- If the value of the sponsor's contribution above does not equal or exceed the minimum of 35 percent of total project costs or maximum of 50 percent of total project costs, provide a cash contribution to make the sponsor's total contribution equal to the 35 percent minimum or up to 50 percent maximum of total project costs required.

**Small Navigation Projects
(Section 107 of the 1960 River and Harbor Act)**

This authority is intended to provide improvements to navigation, including dredging of channels, widening of turning basins, and construction of navigation aids.

Authority and Scope: Section 107 of the River and Harbor Act of 1960, as amended, provides authority for the USACE to develop and construct small navigation projects. The USACE adopts a project for construction after detailed investigation clearly shows the engineering

feasibility and economic justification of the improvement. Each project is limited to a federal cost of not more than \$10,000,000. This federal cost limitation includes all project-related costs for feasibility studies, planning, engineering, construction, supervision and administration.

How to Request Assistance: The USACE can initiate an investigation of a small navigation project upon receipt of a request from a prospective sponsoring agency fully empowered state law to provide required local cooperation.

Division of Work Responsibility: The federal project can provide only general navigation facilities. These may include a safe entrance channel protected by breakwaters or jetties if needed, anchorage basin, turning basin, and a major access channel leading to the anchorage basin or locally provided berthing area. General navigation facilities are constructed and maintained by the USACE. Construction and

maintenance of docs, landings, piers, berthing and fleeting areas, boat stalls, slips, mooring facilities, launching ramps, access roads, parking areas and interior access channels needed for maneuvering into berths are entirely a local responsibility, provided at non-federal expense. The project sponsor also provides all lands, easements, rights-of-way, relocations, and disposal areas, including dikes, alterations and servicing facilities. The project sponsor must also assure availability of a public landing or wharf.

Local Cooperation: A feasibility cost-sharing agreement must be executed with the sponsoring agency if the feasibility study exceeds \$100,000 and the sponsor must contribute 50 percent of the study cost exceeding \$100,000.

Upon completion of the feasibility study, formal assurance of local cooperation and partnership must be executed with the sponsoring agency. This is done through a project partnership agreement. The local sponsor must be a municipality or public agency fully authorized under state laws to give such assurance and



financially capable of fulfilling all measures identified in the agreement implemented under this authority, and have the same project cost-sharing requirements as commercial navigation projects implemented under specific congressional authorization.

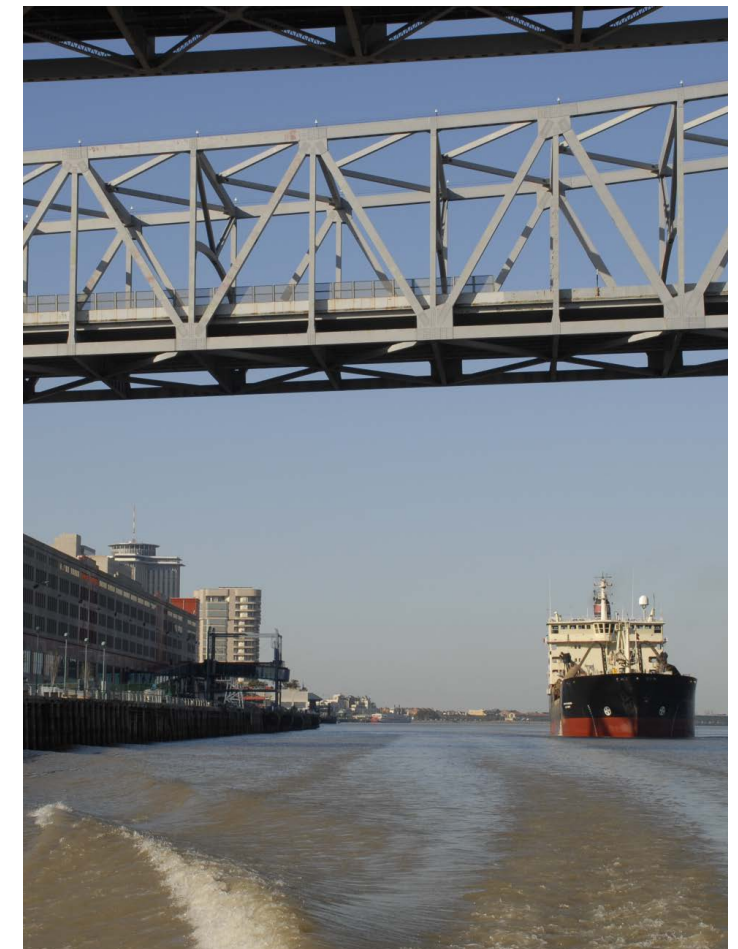


The sponsoring agency must agree to the following:

- Contribute in cash the local share of project construction cost, determined in accordance with existing policies.
- Provide, maintain and operate, without cost to the United States, any adequate public landing or wharf.
- Provide without cost to the United States all necessary lands, easements, rights-of-way, relocations and disposal areas required for construction and subsequent maintenance of the project, including suitable dredged material disposal areas with any necessary retaining dikes, bulkheads and embankments.
- Hold and save the United States free from damages that may result from construction and subsequent maintenance of the project, except damages due to the fault or negligence of the United States or its contractors.
- Accomplish, without cost to the United States, alterations and relocations as required in sewer, water supply, drainage and other utility facilities.
- Provide and maintain berthing and fleeting areas, floats, piers, slips and similar marina and mooring

facilities, as needed, for transient and local vessels, as well as necessary roads, parking areas and other needed public use shore facilities open and available to all on equal terms. Only minimum basic facilities and services provided over and above the required minimum is a matter for local decision. The manner of financing such facilities and services is a local determination.

- Assume full responsibility for all project costs in excess of the federal cost limitation of \$10,000,000.
- Establish regulations prohibiting discharge of untreated sewage, garbage and other pollutants to the waters of the harbor. The regulations shall be in accordance with applicable laws and regulations of federal, state, and local authorities responsible for pollution prevention and control.



**Mitigation of Shore Damages
(Section 111 of the 1968 River and Harbor Act)**

This authority provides for the prevention or mitigation of erosion damages to public or privately owned shores along the coastline of the United States when these damages are a result of a Federal navigation project. This authority cannot be used for shore damages caused by river bank erosion or vessel-generated wave wash. It is not intended to restore shorelines to historic dimensions, but only to reduce erosion to the level that would have existed without the construction of a federal navigation project. Cost-sharing may not be required for this program. If the federal cost limitation is exceeded, specific congressional authorization is required.

Authority and Scope: Section 111 of the 1968 River and Harbor Act provides authority for the USACE to develop and construct projects for prevention or mitigation of damages caused by federal navigation work. This applies to both publicly and privately owned shores located along the coastal and Great Lakes shorelines of the United States. Each project is limited to a federal cost of not more than \$10,000,000.

How to Request Assistance: The USACE can initiate an investigation of a prospective mitigation of damages project upon receipt of a request from a sponsoring agency empowered under state law to provide required local cooperation.

Limitations of Authority: This authority may not be used for the following purposes:

- to construct works for prevention or mitigation of shore damage caused by river bank erosion or vessel-generated wave wash;
- to prevent or mitigate shore damage caused by non-federal navigation projects.

Criteria for a Favorable Recommendation: A recommendation to construct a project to prevent or mitigate shore damage attributable to a federal navigation project may be considered when both of the following conditions exist:

- the navigation project has been determined to be the cause of the damage and abandonment of the

- navigation project is not the most viable solution;
- analysis based on sound engineering and economic principles clearly demonstrates the feasibility of the proposed work.

Cost Sharing a Study: A feasibility cost sharing agreement must be executed with the sponsoring agency if the feasibility study exceeds \$100,000 and must contribute 50 percent of the study cost exceeding \$100,000.

Cost Sharing Construction: The requirements for federal cost sharing are as follows:

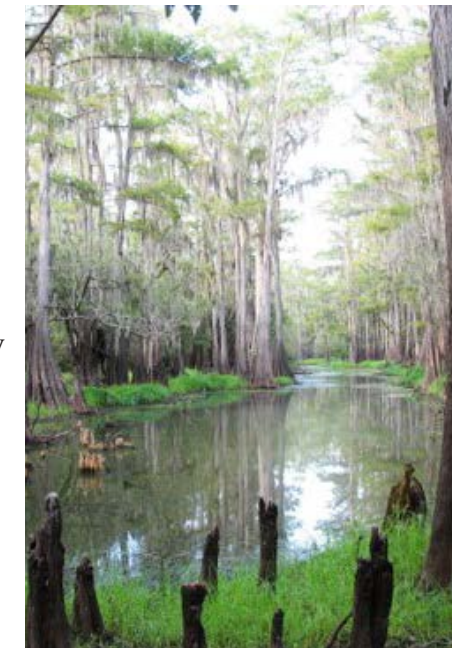
- If the work recommended is confined to mitigation work where erosion is totally attributable to the federal navigation works, costs are shared in the same manner as the project causing the erosion or shoaling.
- If the work recommended is a combination of mitigation and restoration of beaches eroded due to other causes, mitigation work will be shared in the same manner as the project causing the erosion or shoaling and the remaining work will be 100 percent local, unless it qualifies as a federal beach erosion control project.



**Project Modification for Improvements to Environment
(Section 1135 of the 1986 Water Resources Development Act)**

This authority provides for ecosystem restoration through modification to USACE structures or operation of USACE structures or implementation of restoration features when the construction of a USACE project has contributed to degradation of the quality of the environment.

Authority and Scope: Section 1135 of the 1986 Water Resources Development Act, as amended, provides authority for the Corps of Engineers to restore degraded ecosystems. If the construction or operation of the USACE project has contributed to the degradation of the quality of the environment, measures for restoration through modifications of the structure, or operation of the structure, may be undertaken at the project site. Measures at other locations that have been affected by the construction or operation of the project can be undertaken if such measures do not conflict with the authorized project purpose.



How to Request Assistance: An environmental improvement project under Section 1135 can be initiated upon receipt of a request from a prospective local sponsor.

Local Sponsor Responsibility: A feasibility cost-sharing agreement must be executed with the sponsoring agency if the feasibility study exceeds \$100,000 and the local sponsor must contribute 50 percent of the study cost exceeding \$100,000.

Upon completion of the feasibility, a formal assurance

of a local cooperation and partnership must be executed with the local sponsoring agency. This is done through a project partnership agreement. The local sponsor must be a municipality or public agency fully authorized under state law to give such assurance and financially capable of fulfilling all measures identified in the agreement. If the value of lands, easements, rights-of-way, relocations and disposal areas, plus the cash contribution is less than 25 percent of the project cost, the sponsor must pay the additional amount necessary so that the sponsor's total contribution equals 25 percent of the project cost.

The sponsoring agency must agree to the following:

- Provide without cost to the United States all lands, easements, rights-of-way, relocations and disposal areas necessary for the construction and subsequent maintenance of the project;
- Maintain and operate the project after completion without cost to the United States;
- Assume responsibility for all costs in excess of the federal cost limitation of \$10,000,000;
- The non-federal share may be provided with "work in kind" contributions from the sponsor;
- If the value of the sponsor's contribution is less than 25 percent of the project cost, provide a cash contribution to make the sponsor's total contributions equal to 25 percent.



**Ecosystem Restoration Projects in Connection with Dredging
(Section 204 of the 1992 Water Resources Development Act)**

This authority provides for protection, restoration and creation of aquatic and wetland habitats in connection with construction and maintenance dredging of an authorized project.

Authority and Scope: Section 204 of the 1992 Water Resources Development Act, as amended, provides authority for Corps of Engineers to restore, protect, and create aquatic and wetland habitats in connection with construction or maintenance dredging of an authorized project.

How to Request Assistance: Investigations of an environmental improvement project under Section 204 can be initiated upon receipt of a request from a prospective sponsoring agency.

Local Sponsor Responsibility: A feasibility cost-sharing agreement must be executed with the sponsoring agency if the feasibility study exceeds \$100,000.

Upon completion of the feasibility study, formal assurance of local cooperation and partnership must be executed with the local sponsoring agency. This is done through a project partnership agreement.



The local sponsor must be a municipality or public agency fully authorized under state law to give such assurance and financially capable of fulfilling all measures identified in the agreement. If the value of lands, easements, rights-of-way, relocations and disposal areas, plus the cash contribution is less than 25 percent of the project cost, the sponsor must pay the additional amount necessary so that the sponsor's total contribution equals 25 percent of the project cost. Local expenditures in excess of the 25 percent contribution will be reimbursed.

The sponsoring agency must normally agree to the following:

- Provide, without cost to the United States, all lands, easements, rights-of-way, relocations and disposal areas necessary for the construction and subsequent maintenance of the project.
- Maintain and operate the project after completion without cost to the United States.
- If the value of the sponsor's contribution above is less than 25 percent of the project cost, provide a cash contribution to make the sponsor's total contribution equal to 25 percent.
- Assume responsibility for all cost in excess of the federal cost limitation of \$10,000,000.

**Aquatic Ecosystem Restoration
(Section 206 of the 1996 Water Resources Development Act)**

This authority provides for the restoration and protection of aquatic ecosystems if the project will improve the environment and is in the public interest.

Authority and Scope: Section 206 of the 1996 Water Resources Development Act, as amended, provides authority for the Corps of Engineers to restore degraded aquatic ecosystems. A restoration project is adopted for construction only after investigation shows that the restoration will improve the environment, and/or elements and features of an estuary, is in the public interest and is cost effective. A project may include removal of a dam. Each project is limited to a federal cost of not more than \$10 million. This federal limitation includes all project-related costs for feasibility studies, planning, engineering, construction, supervision and administration.

How to Request Assistance: An aquatic restoration project under Section 206 can be initiated upon receipt of a request from a prospective local sponsor.

Local Sponsor Responsibility: A feasibility cost sharing agreement must be executed with a sponsoring agency if the feasibility study exceeds \$100,000 and must contribute 50 percent of the study cost exceeding \$100,000.

Upon completion of the feasibility study, formal assurance of local cooperation and partnership must be executed with the local sponsoring agency. This is done through a project partnership agreement. The local sponsor must be a municipality or public agency fully authorized under state law to give such assurance and financially capable of fulfilling all measures identified in the agreement. If the value of the lands, easements, rights-of-way, relocations and disposal areas in less than 35 percent of the project cost, the sponsor must pay the additional amount necessary so that the sponsor's total contribution equals 35 percent of the project cost.

The sponsoring agency must agree to the following:

- Provide, without cost to the United States, all

lands, easements, rights-of-way, relocations, and disposal areas necessary for the construction and subsequent maintenance of the project.

- Maintain and operate the project after completion without cost to the United States.
- The entire local sponsor's share of project costs may be provided as work-in-kind contributions. Credit for work in kind may not result in any reimbursement to the local sponsor.
- If the value of the sponsor's contribution is less than 35 percent of the project cost, the sponsor must pay the additional amount necessary so that the sponsor's total contribution equals 35 percent of the project costs.
- Assume all responsibility for all costs in excess of the federal cost limitation of \$10,000,000.



**Hurricane and Storm Damage Reduction Projects
(Section 103 of the 1962 River and Harbor Act)**

Sample Letter

This authority allows the USACE to study, design and construct small coastal storm damage reduction projects in partnership with non-federal government agencies.

Authority and Scope: Section 103 of the 1962 River and Harbor Act authorizes the USACE to study, design and construct small coastal storm damage reduction projects in partnership with non-federal government agencies, such as cities, counties, special authorities or units of state government. Projects are planned and designed under this authority to provide the same complete storm damage reduction project that would be provided under specific congressional authorizations. The maximum federal cost for planning, design and construction of any one project is \$10,000,000. Each project must be economically justified, environmentally sound, and technically feasible. Hurricane and storm damage reduction projects are not limited to any particular type of improvement. Beach nourishment (structural) and floodproofing (non-structural) are examples of storm damage reduction projects constructed using the Section 103 authority.

How to Request Assistance: Requests for assistance should be in the form of a letter describing the location and nature of the problem and requesting assistance under the program. The request should be submitted by a state or local government agency to the appropriate Corps district.

Local Sponsor Responsibility: The feasibility study is 100 percent federally funded up to \$100,000. Costs over \$100,000 are shared equally with the non-federal sponsor. Up to one half of the non-federal share can be in the form of in-kind services. Costs for preparation of plans and specifications and construction are shared at 65 percent federal/35 percent non-federal. The non-federal share of construction are shared at 65 percent federal/35 percent non-federal. The non-federal share of construction consists of provisions of any necessary lands, easements, rights-of-way, relocations and disposal areas, plus a cash contribution of 5 percent of the total project costs. In the event that the value, plus 5 percent cash, does not equal at least 35 percent of the total project cost, the non-federal sponsor must contribute additional cash to equal 35 percent.



Commander
U.S. Army Corps of Engineers
(District Name)
(District Street Address)
(District City, State, Zip)

Dear Sir/Ma'am:
[Briefly discuss the need for the study and any other available information.]

I request that the U.S. Army Corps of Engineers, [district name] undertake an investigation of [insert problem] under the authority of [insert authority]. [Local official government entity] hereby expresses our willingness to serve as the non-federal sponsor.

I understand that the study would be federally funded up to \$100,000, and if exceeded, a feasibility cost sharing agreement would be executed to be cost shared 50/50. If studies indicate a viable solution, our objective will be to proceed with construction. We are capable of fulfilling the total financial obligations for construction, operation and maintenance, in general, providing a minimum of 35 percent project costs, including furnishing lands, easements, rights-of-way, relocations and disposal areas. We are aware that both the USACE and our responsibilities will be delineated in the project partnership agreement, which both parties will execute before construction commences.

If you need additional information, please contact [designee] at [phone number and email address].

Sincerely,
Local Official

Partnering with the USACE: Flood Plain Management Services

Sample Letter

Under the authority provided by Section 206 of the 1960 Flood Control Act (PL 86-645), as amended, the USACE can provide the full range of technical services and planning guidance that is needed to support effective flood plain management. General technical assistance efforts under this program includes determining the following:

- site-specific data on obstructions to flood flows, flood formation, and timing;
- flood depths, stages or floodwater velocities;
- extent, duration, and frequency of flooding;
- information on natural and cultural flood plain resources;
- flood loss potentials before and after the use of flood plain management measures.

Types of studies have been conducted under the Flood Plain Management Services include the following:

- flood plain delineation/hazard;
- dam failure analysis;
- hurricane evacuation;
- flood warning, floodway, flood damage reduction;
- stormwater management;
- flood proofing;
- inventories of flood prone structures.

Cost-Sharing Requirements: Efforts under this

program are generally conducted at 100 percent federal expense, except in those instances where the requestor is another federal agency or a private party. In those cases, the work is conducted on a 100 percent cost-recovery basis.

Study Process: The process for Flood Plain Management assistance begins after state, regional, local government or Native American Indian tribe requests USACE assistance under the program. When funding is available, the USACE will work with the requesting organization to develop a scope of work and assemble the appropriate study team for the effort being requested. At their option, the requesting organization may provide voluntary contributions toward the requested services to expand the scope or accelerate the provision of those services. All requestors are requested to furnish available field survey data, maps, historical flood information, etc., to help reduce the cost of services.

How to Request Assistance: Requests for assistance should be in the form of a letter that includes the location and nature of the problem to be investigated. The request should be submitted by a state, local government agency, or eligible Native American Tribe to the appropriate Corps district.

Commander
U.S. Army Corps of Engineers
(District Name)
(District Street Address)
(District City, State, Zip)

Dear Sir/Ma'am:

This is in reference to your Flood Plain Management Services Program. We understand that Section 206 of the Flood Control Act of 1960, as amended, authorizes the Corps of Engineers to help others mitigate flood losses. The [requesting agency, eligible Native American Indian Tribe, or private entity] requests assistance for [body of water or waterway], located in [city, township, or borough] in [county/parish and state].

[Briefly discuss the problem or need.]

Property descriptions [site plans, maps, and/or photographs] are enclosed. Upon your review of this initial request, we would like to discuss the availability of information, required schedule, and level of effort required. Please contact [name, title, phone number] to arrange further discussion.

Sincerely,
Local Official/ Agency/Tribe/Individual



Partnering with the USACE: Support for Others

Interagency and International Support: In addition to our civil works programs, the Corps can provide support to non-Department of Defense federal agencies, states, and local governments through the Interagency and International Support Program.

Cost-Reimbursable Support: The Corps of Engineers also provides cost-reimbursable work for other federal, state and local agencies.

Support is provided under a memorandum of agreement executed between agencies and can include the following work:

<p><i>Design/Construction</i> Bank Stabilization Multipurpose Buildings Bridges/Tunnels Highways/Pavements Transmitter Facilities Flood Control Structures Disposal Sites Water Treatment Waste Treatment Shore/Harbor Protection Port Facilities Intrusion Detection Systems Power Production Facility Rehabilitation/Renovation Railroad Relocations Recreational Facilities</p> <p><i>Program/Project Management</i> Scope/Schedule Network Analysis Life Cycle Costs Performance Monitoring Reports</p> <p><i>Disaster Recovery</i> Emergency Response Preparedness Planning Restoration of Services Damage Appraisal Expedient Construction Cleanup Claims Revaluation</p>	<p><i>Information Management</i> Systems Administration Applications Development Desktop Support Visual/Graphics Products Network Management</p> <p><i>Real Estate</i> Acquisition/Disposal Management Appraisal Leasing</p> <p><i>Engineering and Other Disciplines</i> Site Selection/Development Surveying/Mapping Geotechnical/Subsurface Investigations Seismic Analysis and Design Civil Structural Mechanical Electrical Architecture Transportation Hydraulic Cost/Engineering Environmental Marine Vessel Water Resources Value Engineering Sciences Geology Hydrology</p>
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<p>Archeology Biology Chemistry</p> <p><i>Procurement and Contracting</i> Construction Architect/Engineering Services Inspection Services Equipment/Supplies Partnering Third Party Contracting Job Order Contracting</p> <p><i>Training</i> Water Resource Related Dam Safety Safety Water Construction Quality Assurance Quality Control</p> <p><i>Operation and Maintenance</i> Lock/Dam/Ports Flood Control Structures Recreation Sites Hydropower Masonry Restoration Secure Facilities Intrusion Protection Systems Power Production Facility Rehabilitation Railroad Relocations Recreational Facilities Expedient Construction Cleanup Claims Evaluation</p>

<p><i>Environment</i> Survey/Audits Inventories Habitat Mitigation Wetlands Protection Compliance Documentation Impact Assessments Impact Statements Remedial Designs/Action Air/Water Quality Hazardous Waste Response</p> <p><i>Planning</i> Multi-objective Planning Strategic/Long Range Planning Alternatives Analysis Master Planning Economic Analysis Water Resources Recreation Cultural Resource Investigations Flood Plain Management Planning Assistance to States Architect/Engineer Contract Management</p> <p><i>Dredging</i> Dredge Design/Procurement Excavation Maintenance</p>
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Partnering with the USACE: Environmental Assistance Section 592 of the Water Resources Development Act of 1999, as Amended

Project Scope: Section 592 of the Water Resources Development Act of 1999, as amended, provides authority for the Corps of Engineers to conduct design and construction assistance for water-related environmental infrastructure and resource protection and development projects in Mississippi, such as sewer systems, wastewater treatment, and water supply systems. This type of support is dependent upon federal appropriations.

The following must be adhered to:

- project must be publicly owned
- cost sharing is 75 percent federal/25 percent non-federal
- operation and maintenance is 100 percent non-federal
- execute project partnership agreement
- non-federal sponsor received credit for lands, easements, rights of way, and relocations provided for the project



Partnering with the USACE: Specifically Authorized Projects

The Water Resources Development Act of 1986 made numerous changes in the way Corps projects are developed. It established a framework for partnerships between the federal government (represented by the Corps) and non-federal interests (represented by project sponsors). This act gives sponsors a key role in project planning and design, balanced by requirements for greater non-federal financial shares in the costs of studies and projects.

The Water Resources Development Act of 2014 also made numerous changes to the study phase to streamline the process. A civil works project evolves from an idea about how to solve a problem, to a functioning solution that reflects both the nation's and local community's interests. During its lifetime, a project passes through five basic phases, which include the following:

- reconnaissance
- feasibility
- preconstruction engineering and design
- construction, including real estate acquisition and performance of relocations
- operations and maintenance.

General investigations are limited to feasibility and preconstruction engineering and design.

Who Can Be A Sponsor?

A sponsor can be a state or any other political subpart of a state or group of states, an Indian Tribe, or a port authority, which has legal and financial authority.

A sponsor must be able to provide the cash and real estate requirements needed for the project. A sponsor can be an interstate agency, established under a compact between two or more states with the consent of Congress under Section 15 or Article 1 of the Constitution.

The Sponsor's Role

The sponsor's role changes as the project progresses from phase to phase. A particular responsibility for a sponsor is to participate in many of the day-to-day jobs that lead to a project. In general, it is expected

for the sponsor to play a very active role in attending meetings and preparing documents about the project, making joint decisions about the project (costs, schedules, objectives, alternative plans, project design, construction phasing, etc.), and acquiring real estate and performing relocations of utilities and public facilities.

The USACE/sponsor partnership is the foundation for many relationships needed to produce a project. The people involved represent local, state, and federal government agencies, homeowners associations, sporting clubs, industrial plants, businesses, and others. These sources provide a wide range of professional opinions, political positions, and personal views. With a number and a diversity of views, some conflict among participants may occur. However, the discussion and resolution of disagreements usually produce new and better ideas that will improve the final outcome.

First Steps Toward A Project

All projects originate with a request from a local community for assistance. The following six steps will initiate the process that results in a reconnaissance investigation.

1. A local community experiences a water resources problem that is beyond their ability to solve.
2. Community representatives meet with their local Corps district staff to discuss available forms of help, including federal programs. Before the USACE can get involved in providing assistance, there are two types of authority needed from Congress – study and budget authority. A study authority authorizes the USACE to conduct an investigation of the identified problems. Once the study authority is available, a budget authority can be provided in an annual appropriations act. In certain cases, technical assistance or relief through some smaller studies or projects without further congressional authorization can be provided.
3. If there is no available authority for the USACE to investigate the problem, the community

representatives may contact their congressional delegation to request a study authority.

4. A member of congress may then ask the Senate Committee on Environment and Public Works, Subcommittee on Transportation and Infrastructure, or the House of Representatives Committee on Transportation and Infrastructure, Subcommittee on Water Resources and Environment, for an authority for the USACE to study a problem. The subcommittees then send a docket letter to the USACE requesting information about the study area, problems, and potential solutions. If we have previously investigated and reported on water resources problems in the area, the committee may adopt a study resolution to provide the necessary authority to take another look at the area and review the earlier study.
5. Once a congressional study authority is available, the study will be assigned to the local USACE district. The district may then ask for money to conduct the first phase of the study, which is the reconnaissance.
6. When federal funds to conduct the feasibility phase are included in an Annual Energy and Water Development Appropriations Act, the local USACE district may begin the study of the



community's water resource problem.

Feasibility Phase

Section 1001 of WRRDA 2014 provides that, to the extent practicable, the feasibility report be complete in 3 years, have a maximum federal cost of \$3 million and the district, division and HQUSACE review concurrently. The purpose of this phase is to describe and evaluate alternative plans and fully describe a recommended project. The feasibility phase is cost shared equally between the sponsor and the USACE (except for inland navigation projects which are 100 percent federal). You may provide your share by in-kind services instead of cash. The feasibility phase begins when the local district receives both the sponsor's funds and the federal funds needed to initiate the feasibility study and after the feasibility cost-sharing agreement has been signed. Feasibility phase planning is guided by requirements of the Economic and Environmental Principles and Guidelines for Water and Related Land Resources Implementation Studies (often called the Principles and Guidelines, or P&G). The guidelines define the federal objective of the USACE project planning, which is to contribute to national economic development consistent with protecting the nation's environment, pursuant to national environmental statutes, applicable executive orders, and other federal planning requirements. The principles and guidelines also describe the major steps to be followed in planning and repeated throughout the feasibility phase. The guidelines are as follows:

- specify the problems that are relevant to the planning setting, and that are associated with the federal objective and specific state and local concerns;
- inventory, forecast and analyze conditions in the area that are relevant to the identified problems and opportunities;
- formulate alternative plans that would resolve the identified problems and realize the identified opportunities;
- evaluate the economic, environmental, and other

effects, both beneficial and adverse, of each alternative plan;

- Compare alternative plans and their effects;
- Select recommended plan based on the comparison of alternative plans.

The major documents prepared during this phase are the feasibility report, which is supported by several technical reports for project engineering, real estate, and other factors, and the project management plan, which describes the project schedule and cost estimate.

The sponsor must take a very active role in feasibility phase work. It is during this time that a variety of solutions are investigated and the project takes shape. The real estate plan is developed during this time and it includes a description of the minimum real property interests needed for the project. The sponsor is also encouraged to participate as a member of the study team and must participate on the study executive committee, which oversees study costs, schedules and other aspects of work progress. Decisions made during this phase are based on the views of the sponsor and what is best for the rest of the project's life.

Preconstruction Engineering and Design

The preconstruction engineering and design phase (PED) follows the feasibility study. The purpose of this phase is to complete all of the detailed, technical studies and designs needed to begin construction of the feasibility phase. Soon after PED begins, the division commander's public notice is issued so that technical studies and design may proceed while the Washington-level review of the feasibility report is ongoing. This phase ends with the completion of the first detailed construction drawings and specifications.

Preconstruction engineering and design is cost shared between the Corps and the sponsor. Upon execution of the PPA, the sponsor shall begin contributing their share of the PED phase.

The major documents prepared during this phase are the design memorandum, which includes the results



of the technical engineering studies and design; the plans and specifications, which are detailed drawings and instructions for building the project; and the PPA, which describes sponsor and USACE responsibilities for project construction, operation and maintenance.

Construction

The construction phase brings the project into being. During construction, the features that have been agreed to by the USACE, sponsor and other project interests are built and begin to function as needed. Since the USACE does not have its own construction workforce or equipment, contractors are needed to actually build a project. This phase begins soon after congress appropriates funds specifically for initiation of construction and these funds are allotted to the local USACE district. Then the PPA is signed, which may be the most important project document. Jointly signed by the sponsor and the Assistant Secretary of the Army for civil works, the agreement sets forth the partner's responsibilities and commitments for what will be built, cost sharing, real estate acquisitions and relocations, and other factors.

Real estate acquisitions begin when the USACE provides written descriptions and/or final right-of-way drawings that show the area and estates required for the project and notify you in writing to begin acquisition. The types of real property interests to be acquired will vary from project to project. Usually,



- Conducting of negotiations and eminent domain proceedings.
- Providing relocation assistance services and processing relocation assistance claims and appeals by displaced persons.
- Performing or ensuring the performance of relocations of utilities and public facilities.
- Submitting lands, easements, rights-of-way, relocations and disposal areas credit requests for approval and documenting.

Construction work begins soon after the PPA is approved and executed, the real estate is acquired, and a contract is awarded. The job of building the project may take several years to complete if the project consists of large or complex structures. Smaller projects, such as shorter stretches of channels, can often be finished in much less time. Construction is considered to be complete when the project has been inspected and accepted from the contractor, and it is turned over to the sponsor for use, usually including operation and maintenance.

The cost to build a project is shared between the USACE and the sponsor in accordance with the requirements of various federal laws, especially the Water Resources Development Act of 1986. Different cost-sharing requirements apply to projects with different purposes. Two major documents are also prepared during this phase: the construction contract(s), which is the agreement between the USACE and the contractor(s) about how the project will be built, and the project operation and maintenance (O&M) manual, which contains the instructions for the sponsor to follow for project use after construction is finished. As construction proceeds, the sponsor should be actively involved in reviewing contract documents, and monitoring fiscal and physical progress as work is conducted. You must also work very closely with the USACE in reviewing the O&M manual to ensure that it reflects the needs and limitations of the sponsor, and that it is

some type of standardization easement estate is required, and acquisition is by lease, purchase, donation, or condemnation. Formal notification to proceed will occur at the same time as, or soon after, the PPA is signed. Ordinarily, sponsors acquire any necessary real property interests; however, the sponsor may request the USACE to acquire them on the sponsor's behalf. If the USACE elects to perform this service, the sponsor will be solely responsible for all costs of the requested services and must provide sufficient funds in advance of the USACE incurring any financial obligations associated with this work. However, the sponsor is ultimately responsible for acquiring the necessary real estate, seeking assistance when needed, and seeing to it that all legal requirements are met. In either case, title to real property interests is normally retained by the sponsor. The time required for real estate acquisition varies from project to project depending upon the acreage, number of tracts and ownerships, and experience and capability of sponsors. Advertisements of the construction contract may proceed when the USACE certifies that the sponsor has obtained adequate real property interests. The sponsor only needs to provide the USACE with authorization for entry and proof of sufficient interest in the necessary lands. In addition, the sponsor will be responsible for the following:

- Preparing surveys, maps, and legal descriptions.
- Performing individual tract appraisals.
- Obtaining title evidence and performing curative work.

easily understood and helpful to its future users. Once a USACE Civil Works project is built, it is usually turned over to the sponsor for ongoing operation and maintenance including repair, rehabilitation, and major replacement. During this phase, all of the activities needed to make the project work are conducted. These activities range from day-to-day maintenance, such as trash removal, to long-term or less frequent jobs, such as repairing access roads. It also includes final certification of necessary real estate for operation and maintenance. Unlike most other projects, navigation projects are usually maintained by the USACE. The sponsor's responsibility for the project operation and maintenance begins when the project is turned over following construction, and continues indefinitely. The sponsor must pay for all operation and maintenance costs, except for navigation, fish and wildlife enhancement projects where the USACE has some responsibility for funding. The funding requirements for work following construction can be explained by the Project Manager. The USACE involvement after

construction normally will consist of periodic routine inspections to ensure that the project is being properly maintained and is functioning as intended. In certain circumstances, such as if there is a need to correct a design or construction deficiency, the USACE may return to the project to restudy a situation or to take additional action.

Cost-Sharing Requirements

The costs of USACE water resource studies and projects are shared between the Corps and non-federal interests (sponsors) in accordance with the cost-sharing requirements outlined in federal laws, primarily the Water Resources Development Act of 1986. By combining non-federal money with federal funds, limited federal dollars can be spread further to support a larger volume of construction nationwide. The USACE share of the costs is provided through the federal budget process. The sponsor's share of the costs can be provided by a variety of means available to local governments, such as local taxes, bonds, and grants from other sources.



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