PARTICIPATING AGENCY SERVICE AGREEMENT
BETWEEN
THE UNITED STATES AGENCY FOR INTERNATIONAL DEVELOPMENT
AND
U.S. Army Corps of Engineers

Award Number:(TBD)		Modification Number:
1. Activity Title: Water Sector Support Technical Assistance (WSSTA)		2. Strategic Objective Title and Number: Framework Elements 3.1.8, 4.5.2, 4.8.1
3. Appropriation Symbol: (see fund cite(s))(s		4. Fund Code: (see fund cite))
5. A&A Request Number/MAARD Number: NMS # 843		6. Initial Fiscal Year: 2009
7. Start Date: October 1, 2009		8. Completion Date: September 30, 2014
9A. Prior Funding $0	9B. Funding Obligated this Document $500,000.00	9C. Total Obligated Funding $500,000.00
10. Authority: Section 632(b) of the Foreign Assistance Act of 1961, as amended (FAA), 22 U.S.C. Sec. 2392(b);		
11A. Services to be Provided: The Participating Agency agrees to provide the services summarized below and more fully described in Annex A. This PASA incorporates by reference the terms and conditions of the General Agreement (GA) between USAID and the USACE dated May 7, 2003. USACE will provide technical assistance support for USAID water sector activities as specified in ANNEX A.. 11B. Place of Performance:		
12. Liaison Offices/Additional Representatives		
12A. Participating Agency Name: L. Leonard Wolner, Interagency & International Services Address: Headquarters, U.S. Army Corps of Engineers (CEMP-CN) 441 "G" Street, N.W. Washington, D.C. 20314-1000 Lindy.L.Wolner@usace.army.mil ; 202-761-0642		12B. United States Agency for International Development –Contract officer's Technical Representative (COTR) Daniel J. Deely Water Resources Advisor EGAT Water Team 1300 PA AVE, NW Washington, D.C. 20523
13A. Signature by Authorized Representative **U.S. Army Corps of Engineers** Steven L. Stockton Name BY: _____ Director of Civil Works Title Date: 9/21/09		13B. Signature by USAID Agreement Officer **United States Agency for International Development** Michael J. Yates Name BY: _____ Senior Deputy Assistant Administrator (SDAA) Title Bureau for Economic Growth, Agriculture and Trade USAID Date: 9/22/09
14. This Agreement consists of this face sheet and the following items (if checked): X Schedule X Annex A – Statement of Work X Annex B – Budget X Annex C – General Agreement (GA) May 7, 2003		

Funding Sheet – by Operating Unit and Program Element

BETWEEN THE UNITED STATES AGENCY FOR INTERNATIONAL DEVELOPMENT
AND
THE DOD U.S. ARMY CORPS OF ENGINEERS (USACE)

PASA 632(b) (# TBD)
USAID and USACE

Water Sector Support Technical Assistance (WSST)

Clearances:
EGAT/NRM/W:James Franckiewicz /s/ Date 8/18/09
EGAT/NRM:James Hester /s/ Date 8/20/09
GC/G:Paul Figueroa PF (email) Date 8/20/09
EGAT/PAICO:Tawanna Ruth /s/ Date 8/20/09
EGAT/PAICO/PI:Michael Bowyer /s/ Date 8/21/09

EGAT/NRM/W:DDeely:USACE PASA Facesheet 08 12 2009:25255

1. USAID Project Office: USAID/EGAT DUNS # 126424584
   USAID/EGAT/NRM/W
   Ronald Reagan Bldg, 3.8.30
   Washington, DC 20523-3800

2. Funding by USAID Operating Unit

USAID	$500,000
BBFY	2009-2010
Fund	DV
NMS	843
Operating Unit:	EGAT/NRM
Program Element:	A085
Program Area:	A21
Amount	$500,000

USAID BETC - Disbursement (DISB)
NOAA 13x1450
NOAA BETC - Collection (COLL)
NOAA DUNS # 784769085.

SCHEDULE
Participating Agency Services Agreement (PASA)
Between
US Agency for International Development (USAID)
And
U.S. Army Corps of Engineers (USACE)

A. PURPOSE OF THE AGREEMENT:

This Agreement is entered into under section 632(b) of the Foreign Assistance Act of 1961, as amended, 22 U.S.C. Sec. 2392(b). It is entered into under the authority and terms and conditions of the General Agreement between the United States Agency for International Development and the Department of Army, U.S. Army Corps of Engineers, dated May 7, 2003. Under this Agreement, the Participating Agency will provide technical services to USAID in accordance with the Statement of Work set forth in Annex A to the Agreement. USAID and the Participating Agency may modify this Agreement by mutual agreement in writing. As used in this Agreement, a "cooperating country" is a country receiving assistance under this Agreement.

B. PERIOD OF AGREEMENT

The effective date of this Agreement is the latter date in Blocks 13A and 13B on the facesheet. It is the date when the Participating Agency may begin to incur costs to support the technical services the Participating Agency will provide this Agreement. The completion date of this Agreement is set firth in Block 8 of the facesheet of this Agreement, and it is the last day on which Participating Agency may incur costs under this Agreement, unless the Agreement Officer agrees other wise in writing. The Start Date found in Block 7 of the facesheet of this Agreement is the estimated date on which services of the Participating Agency under this Agreement will begin. Unless the USAID Agreement Officer specifically authorizes otherwise in writing prior to the Completion Date, the Participating Agency may not provide services to USAID under this Agreement beyond the Completion Date.

C. FISCAL TERMS

1. **Obligation:** Signature of this Agreement by the Participating Agency and the USAID Agreement Officer (in Blocks 13A and 13B of the facesheet of this Agreement constitutes an obligation of funds by USAID in the amount specified in Block 9B of the facesheet. USAID funding for this Agreement is limited to the total obligated funding (block 9C of the facesheet). Unless the USAID Agreement officer specifically authorizes otherwise in writing prior to the Completion Date, the Participating Agency may not incur costs greater than the total obligated funding.

2. **Budget:** Annex B sets forth the Budget for the services that the Participating Agency will provide under this Agreement. The Participating

Agency may adjust individual line items in the Budget, provided that (1) the Participating Agency does not exceed obligated funding; (2) an adjusted line item does not increase by more than 25 percent; (3) the Participating Agency notifies USAID in writing in writing of the adjustments; (4) funds from one USAID organizational unit (e.g., a specific USAID Operating Unit (OU) are not being used to support PASA activities of another USAID Operating Unit (separate funding from different USAID Operating Units comes with a unique budget code when obligated to the Agreement and must be tracked, expended and vouchered/billed separately). Increasing a budget line item by more than 10 percent requires the prior written approval of the USAID Agreement Officer. Using funds from one USAID organizational unit to fund PASA activities of another organizational unit also requires prior written approval of the USAID Agreement officer.

D. REPORTS

The Participating Agency must submit the technical other reports required under the clause of the General Agreement, Section G, entitled "Reports".

The Participating Agency will submit the required reports to the USAID Contract Officer's Technical Representative (COTR) at the address indicated in Block 12B of the facesheet of this Agreement.

E. PAYMENT

1. (a) For bills payable by USAID/Washington: The Participating Agency shall bill USAID through the Intra-governmental Payment and Collection System.

The USAID financial contact person is the Office Chief, M/FM/CMP/IBU, at 202-712-4516 (telephone) and 202-216-3543 (fax). The USAID Agency Location Code (ALC) for billing is 72-000001.

1. All financial Reports to support the bills shall be addressed to:

United States Agency for International Development
M/FM/CMP/IBU
Inter-Agency Billing Unit
1300 Pennsylvania Avenue, NW
Ronal Reagan Building Room 7-07-064
Washington, Dc 20523-0208

2. The Participating Agency shall submit an original financial report to the Paying Office identified above with each billing to itemize expenditures to the level of detail specified in the Budget (Annex B) of this Agreement. The Participating Agency must submit a copy of the financial report to the USAID Contract Officer's Technical Representative (COTR).

2. The Participating Agency shall prepare the financial reports required under this Agreement on a quarterly basis.

3. The parties agree to use reimbursement method of payment.

4. The financial reports submitted shall, as a minimum, current period and cumulative amounts as follows:

Budget Line Item	Budget Amount	Current Period Disbursements	Cumulative Disbursements	Remaining Balance

F. CORE TECHNICAL SUPPORT ACTIVITIES and OTHER USAID UNIT TECHNICAL SERVICES ACTIVITY PLANS (TA Plans)

The technical services activities performed under this Agreement will consist of a combination of Core Technical Support Activities and technical services carried out under specific technical services plans (TA Plans) for individual USAID country field missions or other Operating Units. Some activities may include advance payments of initial TA Plan costs from the core budget that may later be reimbursed to the core budget when USAID missions or Operating Unit funds are transferred to the Agreement for these specific TA Plan activities.

G. COMMUNICATIONS

While USAID administers this overall Agreement in Washington, official communications with USAID field offices on technical matters are the responsibility of the USAID Contract Officer's Technical Representative (COTR) identified in any specific technical services activity plan {TA-Plan) for the work that is being implemented.

H. SUPPORT TO TERRORISM

The Participating Agency is reminded that U.S. Executive Orders and U.S. laws prohibit transactions with, and the provision of resources and support to, individuals and organizations associated with terrorism. It is the legal responsibility of the Participating Agency to ensure that all sub-agreements, contracts, and grants issued under this Agreement comply with these Executive Orders and laws.

I. ORDER OF PRECEDENCE

In the event of conflicts between this Agreement and the General Agreement of May 7, 2003, the terms of the General Agreement shall prevail, except as the Parties may otherwise agree explicitly in writing. Conflicts between any parts of this Agreement will be resolved by applying the following descending order of precedence:

Facesheet
Schedule
Annex B. Budget
Annex A, Program Description

J. SOURCE, ORIGIN and NATIONALITY (GEOGRAPHIC CODE)

The authorized geographic code for procurement of goods and services under this Agreement is "000" ((the United States)), unless a waiver is processed to procure from other geographic code in accordance with ADS 310..

K. COMPLETION DATE AND CLOSE OUT OF THE AGREEMENT

1. The Completion Date of the Agreement is the date stated in block8 of the facesheet of this Agreement, or such other date as the parties may agree to by Amendment of this Agreement. "Completion Date" for this purpose means the estimated date by which all USAID-financed services will have been performed and all USAID-financed goods will have been furnished as contemplated in this Agreement. Except as USAID may otherwise agree in writing, USAID funds made available under this agreement may not be used to finance services performed after the Completion Date or to procure goodsafter the Completion Date.

2. USAID will begin to formally close out the Agreement after the Completion Date. The Participating Agency will cooperate with USAID to expeditiously and properly document the close-out of the Agreement. Except as USAID may otherwise agree in writing, the Participating Agency must, not later than nine months following the Completion Date, submit to USAID requests for reimbursement or liquidation of outstanding advances under the Agreement. Funds which have not been disbursed and for which reimbursement requests, with supporting documentation, have not been received by USAID as of nine months following the Completion Date of the Agreement may be unilaterally deobligated by USAID.

ANNEX A

Statement of Work
USAID/USACE Participating Agency Services Agreement (PASA)
For
U.S. Army Corps of Engineers Technical Assistance
For
USAID Water Sector Program Support (WSPS)

USAID Cooperating Countries and Agency Operating Units frequently require technical assistance relating to identifying and assessing issues, and examining, designing, reviewing and surveying various aspects of their ongoing and planned development sector programs. In the area of Integrated Water and Coastal Resources Management (IWCRM), USAID cooperating countries and OUs are heavily engaged in development programs that have been expanding in some of their program components in response to Congressional directives (earmarks) and new Legislation (Senator Paul Simon Water for the Poor Act) [Public Law 109-121]. During Fiscal Year (FY) 2008, USAID's total water sector program increased from a total of $263 million in the previous year to more than $490 million; water supply, sanitation and hygiene budgets increased from $213 million to $390 million, partly in response to a new $300 million earmark for "safe drinking water and sanitation supply projects and related water sources management activities". This large multi-million increase in the scale of USAID's water sector programs in 2008 was followed in FY 2009 with maintenance of the same expanded Congressional directive (earmark) level, with strong prospects for further increases in FY 2010 ($350 million or more) and beyond.

The purpose of this Participating Agency Services Agreement (PASA, or InterAgency Agreement) is to provide USAID cooperating countries and Operating Units with technical assistance to help in making USAID's expanding water sector programs more responsive to country needs and USAID programming priorities. USACE and its cooperators and partners represent one of the strongest sources of water management and related development expertise in the United States.

This PASA Agreement will provide technical assistance support activities funded with both core and USAID field mission and Operating Unit (OU) field support funds. All

technical assistance support activities will be identified and defined through coordinated effort among the USAID Project Manager (COTR), the USACE Project Manager, and the requesting USAID Operating Unit technical representative; each technical assistance support activity will include a brief description of the work to be carried out, the technical approach, the expert team composition and level of effort required, schedule, deliverables and estimated budget/costs.

Technical assistance support may be provided in any aspect of Integrated Water Resources Management (IWRM), as listed below:

IWRM Topics include but are not limited to-

- Water resources management
- Coastal resources management
- Water supply
- Sanitation and hygiene
- Wastewater collection and treatment
- Household water storage and point-of-use (POU)
- Drinking water treatment
- Drinking water quality
- Water services for the poor
- Rural water supply/sanitation/hygiene
- Water wells
- Urban stormwater management
- Water pollution prevention and control
- Water infrastructure finance
- Water sector and water utility reform
- Water law and policy
- Gender mainstreaming
- Stakeholder participation
- Aquatic biodiversity
- Coral reef protection
- Estuary management
- Groundwater/aquifer management
- Watershed management
- River basin management
- Transboundary water management
- River flow forecasting

- Drought/flood/floodplain management
- Hydrometeorological disaster management/mitigation
- Hydrometeorological forecasting
- Hydropower development
- Reservoir management
- Global climate change (GCC)
- Food Security
- Agricultural irrigation
- Water demand management
- Wastewater reuse
- Desalination
- Water-related tourism
- Aquatic ecosystem management
- Marine protected area management
- Water use allocation
- Fisheries and aquaculture

Many of the technical assistance support (TAS) requirements of USAID cooperating countries and Operating Units (OUs) may consist of the work of 1-5 personnel over time periods of 1-5 months, while others may consist of a series of short technical assistance efforts conducted over a longer time period. Some technical assistance services may be provided to requesting USAID Operating Units "virtually" as well as physically; so that some support services may be carried out in the United States or in other locations where Participating Agency personnel providing the services are based through email, conference calls, video conferencing, desk studies, white papers, technical options and recommendations, and work that is otherwise delivered to USAID requesting USAID OUs without physical travel to the requesting USAID location. USACE units and their cooperators and partners that may be involved in providing technical assistance services include but are not limited to those listed in the sections following.

Gender Statement: USACE will provide its technical assistance activities with attention to developing and mainstreaming participatory, gender sensitive models of integrated water and coastal resources management, and ensuring that women and other marginalized communities are empowered to participate in activity decision-making and in the equitable distribution of water and coastal resource benefits; and USACE will perform gender analyses required to demonstrate achievement of these gender objectives when required.

CIVIL WORKS: The U.S. Army Corps of Engineers (USACE) is the nation's principal federal water resources development and management agency. The body of law that governs water resources development in the United States is contained in numerous rivers and harbors acts, flood control acts, and water resources development acts. In 1986, the Administration and the Congress agreed on landmark legislation which requires project cost sharing by state or local project sponsors for all water resources projects. The USACE, in conjunction with these state and local cost sharing partners, manages the development of projects to improve the nation's deep draft harbors and inland navigation systems, projects to reduce flood damage, and projects to protect the nation's aquatic environment. The USACE is also responsible for the operation and maintenance of numerous existing water resources projects which reduce flood damages, support inland and coastal navigation, produce hydropower, provide storage for municipal and industrial water supply and irrigation, and provide for water related recreation activities. Program priorities are focused on navigation, flood damage reduction, and environmental protection projects. The Corps also manages a permit or regulatory program, established in the 19th century to protect navigation, and expanded under the Clean Water Act in the 1970's to regulate the deposit of dredge and fill materials into the nation's waters and wetlands. Today the USACE implements the principal regulatory statutes that protect the nation's waterways, wetlands and other aquatic resources. To support this management infrastructure, the USACE also supports an active applied R&D program that is directly linked to providing updated analytical services to Corps offices for emerging needs, such as climate change, ecological restoration, innovative construction technologies, analytical tools, and training.

CIVIL WORKS PROGRAMS: USACE provides a wide range of water resources management services in the U.S. that includes planning, design, construction, operations of reservoir systems, regulation of waterways, and analytical services associated with its primary purposes of flood control, navigation (inland and deepwater), environmental maintenance and restoration, water supply, hydroelectric power, drought management, and emergency response. The Corps' Civil Works program collaborates with many other federal agencies (NOAA, USGS, Bureau of Reclamation, Agriculture, etc.) as well as state agencies and NGOs to achieve its programmatic goals, and provides technical

assistance to numerous states involved in water resources management, in addition to managing its own extensive portfolio of projects. Corps District offices are engaged in over 300 watershed and water resources studies and projects annually, throughout the US, all of which are conducted with full public participation, and incorporating the latest and most innovative planning techniques and models as part of their efforts.

MILITARY PROGRAMS: The USACE provides engineering, design, construction, and environmental management products and services for the Army, Air Force, other assigned U.S. Government agencies and foreign governments. The U.S. Army Corps of Engineers along with the Naval Facilities Command are the two designated construction agencies for the Department of Defense.

U.S. ARMY CORPS OF ENGINEERS CAPABILITIES (USACE): USACE capabilities include the following:

Planning services that include watershed assessments; water demand and availability analysis; formulation of alternative plans and evaluation of economic, environmental and social impacts.

Design and Construction Management - This is the management of design (performed by in-house personnel or by contract) and construction contracts.

Cost Estimating - This is part of design and construction management or can be done as a stand alone service.

Damage Assessment - Normally done after natural disasters (hurricanes, flooding, earthquakes, etc., but is also done in response to disasters perpetrated by terrorists) including estimates for clean up and restoration of operations.

Disaster Response - The USACE has the capability to mobilize and immediately start disaster recovery operations.

Engineering/Design - The USACE has the capability to perform design and engineering services with our own personnel or by contract.

Environmental Restoration - This is performed in all three mission areas - Civil Works, Military Programs, and Support for Others (both military and civilian customers).

Vulnerability Assessments - The vulnerability threat is decided by other agencies of the U.S. Government, the measures to protect against the threat are recommended by the U.S. Army Corps of Engineers.

Legal Services - This is part of design and construction management or can be done as a stand alone service.

Planning - Good planning is a critical element in a successful Civil Works project and is performed by the U.S. Army Corps of Engineers. In the Military and Support for others Programs, planning may be performed by the customer or by the U.S. Army Corps of Engineers.

Procurement/Contracts - This is part of design and construction management or can be done as a stand alone service for a customer furnished design after a constructability review and cost estimate are performed before start of construction.

Project Management - All major work items (projects) performed by the U.S. Army Corps of Engineers are assigned to project managers who see the projects through to completion.

Research and Development - Research and Development activities are performed in support of the Civil Works and Military programs and are performed on a reimbursable basis for other agencies and private organizations.

Real Estate - Real Estate services are performed in support of the Civil Works and Military programs and are performed for others on a reimbursable basis.

PERSONNEL: USACE has 8 Division offices (also called Regional Business Centers) , 41 District offices, 2 Technical Centers, 7 World Class Laboratories, 2 Theater Engineer Commands, 1 Engineer Battalion and dozens of Centers of Expertise. Additionally a 9th provisional division, the Gulf Region Division was activated in 2004 to support reconstruction efforts in Iraq. In March 2004, the Afghanistan Engineer District was established in Afghanistan to support reconstruction efforts there. The

missions of these offices and centers are often as varied as the locations and customers they serve.

The Corps of Engineers has about 22,000 employees assigned to Civil Works programs and about 10,000 employees assigned to Military programs. There are about 600 uniformed personnel assigned to both military and civil programs. Because of its large work force, USACE is able to mobilize both civilian and military personnel for both civilian and military emergencies anywhere in the world.

APPROXIMATE ANNUAL VALUE OF PROGRAMS: Civil Works programs amount to $10 to $14 Billion which includes new construction and operation and maintenance of existing projects. Military programs amount to $25 to $30 Billion which includes new construction and maintenance and repair of existing facilities. Interagency and International programs amount to $1.5 to $2 Billion which includes civil and military services to other nations and services for Federal, State and local agencies.

It's important to note that all construction and most design work USACE performs is contracted out to private sector companies, who employ approximately 300,000 people on Corps activities. USACE works in close partnership with these firms, and the working relationships established in peacetime serve us well in emergencies at home and abroad.

USACE Interagency and International services also provides technical support overseas to U.S. agencies, private firms, and other countries and international organizations. This support covers the complete range of planning, engineering, design and construction management, environmental services, and technical assistance related to water, natural resources, infrastructure, and buildings. Assistance can vary from providing technical advice to complete project management services. The Corps also has outstanding success in the use of alternative dispute resolution, and provides training in a variety of water resources, environmental, and engineering subject areas. The Corps accomplishes much of its work through the management of contracts with private firms. Cornerstones of USACE international assistance are speed, quality, transparency, and capacity building.

REGIONAL OFFICES: The Corps Regional Business Centers can arrange assistance on multi-objective water resources

planning; large scale water resources project building and maintenance; navigation projects including dredging and dredged material disposal; lock and dam construction, operation, and rehabilitation; flood damage reduction and flood plain management planning, including nonstructural solutions; shore protection and coastal engineering; hydropower development, water supply, water quality control, fish and wildlife conservation and enhancement, and outdoor recreation; emergency relief response activities; building, utility systems, and other infrastructure design and construction; and a complete range of environmental support from assessments to remediation. The offices provide one-stop services covering the full spectrum of assistance from planning, design, and construction to facility operation. These offices are:

Europe:	U.S. Army Engineer Division, North Atlantic 302 General Lee Avenue Brooklyn, NY 11252-6700 Phone: 718-765-7018 Internet: http://www.nad.usace.army.mil
Africa and the Middle East:	Transatlantic Programs Center U.S. Army Corps of Engineers P.O. Box 2250 Winchester, Virginia Phone: (540) 665-4085 Internet: http://www.tac.usace.army.mil
Central and South America:	U.S. Army Engineer Division, South Atlantic 60 Forsythe St. SW Atlanta, Georgia 30303-8801 Phone: (404) 562-5011 Internet: http://www.sad.usace.army.mil
Asia and the Pacific:	U.S. Army Engineer Division, Pacific Ocean Ft. Shafter, Hawaii 96858-5440 Phone: (808) 438-8319 Internet:

http://www.pod.usace.army.mil

CORPS LABORATORIES: The U.S Army Engineer Research and Development Center (ERDC) is the one of the most diverse engineering and scientific research organizations in the world. ERDC conducts research and development in support of the Soldier, military installations, and USACE civil works missions, as well as for other federal agencies, state and municipal authorities, and with U.S. industry through innovative work agreements. This research organization includes 7 laboratories that provide support in three primary technical areas, including Soldier Support, Military Installations and Civil Works. More information about ERDC can be found at http://www.erdc.usace.army.mil/. Information on individual labs follows:

Coastal and Hydraulics Laboratory
U.S. Army Engineer Research and Development Center
3909 Halls Ferry Road
Vicksburg, MS 39180
Phone: (601) 634-3111
Internet: http://chl.erdc.usace.army.mil/

The Coastal and Hydraulics Laboratory conceives, plans, coordinates, and conducts hydraulic/coastal/ocean/ hydrologic engineering, near-shore oceanography, water resources, and sedimentation research and data collection in support of civil works and military missions of the USACE, Army, and Department of Defense. The research provides a better understanding of waves, water levels, and currents and the resultant coastal processes, and the interaction of these forces and processes with shores, inlets, navigation channels, and coastal structures; streams and rivers; and waterways, reservoirs and natural impoundments, estuaries, groundwater, dredging equipment, fisheries systems, hydraulic structures of all types, and physical processes in rivers, lakes, and oceans that affect the environment.

Construction Engineering Research Laboratory
U.S. Army Engineer Research and Development Center
Champaign, Illinois
Phone: (217) 373-7202
Internet: http://www.cecer.army.mil/

The Construction Engineering Research Laboratory (CERL) conducts research to support sustainable military installations. Research is directed toward increasing the Army's ability to more efficiently construct, operate, and maintain its installations and ensure environmental quality and safety at a reduced life-cycle cost. CERL also supports ERDC's research and development mission in civil works and military engineering.

Cold Regions Research and Engineering Laboratory
U.S. Army Engineer Research and Development Center
Hanover, New Hampshire
72 Lyme Road
Hanover, New Hampshire 03755-1290
Phone: 603-646-4100
E-Mail: info@crrel.usace.army.mil
Internet: http://www.crrel.usace.army.mil/

The Cold Regions Research and Engineering Laboratory (CRREL) mission is to gain knowledge of cold regions through scientific and engineering research and put that knowledge to work for the USACE, the Army, the Department of Defense (DOD), and the Nation. CRREL is DOD's only laboratory that addresses the problems and opportunities unique to the world's cold regions. Its work includes an amazing array of topic areas, including engineering and technology in cold regions.

Environmental Laboratory
Waterways Experiment Station
U.S. Army Engineer Research and Development Center
3909 Halls Ferry Road
Vicksburg, MS 39180-6199
Phone: (601) 634-2678
Email: EL-Inquiry@erdc.usace.army.mil
Internet: http://el.erdc.usace.army.mil/index.cfm

The Environmental Laboratory mission is to provide environmental analysis research, development, consultation, technology transfer direct response, and training support to the USACE, the Army, other DOD elements, and other government agencies in the following general fields: environmental quality; resource inventory, analysis, evaluation, and management; water quality; pollution abatement; pollution prevention; hazardous, toxic, and

radioactive waste characterization; inventory, treatment, and/or disposal; contaminant mobility; wetlands; fate and effects environmental risk assessment; aquatic plant control and other non-indigenous species control such as zebra mussels; dredging and dredged material management; environmental engineering; environmental modeling and simulations; environmental restoration; assessment, treatment, and management of contaminated sediments; environmental chemistry; environmental sensors development; outdoor recreation; and cultural resources.

Geotechnical and Structures Laboratory
U.S. Army Engineer Research and Development Center
3909 Halls Ferry Road
Vicksburg, MS 39180-6199
Phone: (601) 634-4113
Email: GSL-Info@usace.army.mil
Internet: http://gsl.erdc.usace.army.mil/

The Geotechnical and Structures Laboratory (GSL) conducts research in the areas of soil mechanics, engineering geology and rock mechanics, earthquake engineering, geophysics, concrete and materials, and centrifuge modeling. It operates the world's most powerful http://www.wes.army.mil/centrifuge/ centrifuge. GSL has responsibility for leading the technology-based research, development, testing, and evaluation in the reliance mission area of survivability and protective structures.

Information Technology Laboratory
U.S. Army Engineer Research and Development Center
3909 Halls Ferry Road
Vicksburg, MS 39180-6199
Phone: (601) 634-4581
Email: ITL-WEB-Technical-Directors@erdc.usace.army.mil
Internet: http://itl.erdc.usace.army.mil/

The Information Technology Laboratory (ITL) is the preeminent engineering information technology organization in the Department of Defense (DoD). ITL supports the research missions of U.S. Army Engineer Research and Development Center (ERDC), other Corps activities, the Army, DoD, and other agencies by conceiving, planning, managing, conducting, and coordinating research and development (R&D) in high performance computing, computer-

aided and interdisciplinary engineering, computer science, information technology, and instrumentation systems. Through a balanced program of R&D and demonstration, ITL advances the Army's knowledge and ability to use advanced information technology to address a wide range of engineering and scientific challenges.

U.S. Army Geospatial Center
7701 Telegraph Road
Alexandria, Virginia 22315
Phone: (703) 428-7869
Email: DLL-CEERD-TEC-HYDRO@usace.army.mil
Internet: http://www.agc.army.mil/

The Army Geospatial Center (AGC) supports the nation's civil and environmental initiatives through research, development, and the application of expertise in topographic and related sciences. Specific to Water Resources, the AGC provides products, information and services to support DoD's water resource requirements and has developed a process to analyze, map, display and distribute Existing Water Supply Facilities, Surface, and Ground Water information. This data set is know as the DoD Water Resources Data Base (WRDB).

CENTERS OF EXPERTISE: Other USACE organizations that support the corporate mission:

Civil Works Planning Centers of Expertise
Internet:
http://usace.army.mil/CECW/PlanningCOP/Pages/Plan_cx.aspx

In August 2003, the Director of Civil Works designated five national Planning Centers of Expertise to enhance the Corps' planning capability for inland navigation, deep draft navigation, ecosystem restoration, hurricane and storm damage reduction, flood damage reduction, and water supply and reallocation. The Director also recognized the Northwestern Division as the acknowledged national hydropower Planning Center of Expertise, and acknowledged the excellent support of the National Nonstructural/Flood Proofing Committee across business line program areas. The Centers are part of the Corps' national initiative to improve the quality and effectiveness of water resources planning, referred to as the Planning Excellence Program. This program includes planner training and development,

planner leadership development, quality assurance and quality control, the Centers of specialized planning expertise, and other national initiatives to improve planning effectiveness.

Hydroelectric Design Center
U.S. Army Corps of Engineers
Portland District
333 S.W. First Ave.
Portland, OR 97204-3495
Phone: (503) 808-4200

The Hydroelectric Design Center (HDC) is the Mandatory Center of Expertise (MCX) within the U.S. Army Corps of Engineers for hydroelectric power engineering and design and a Directory of Expertise (DX) for flood control pumping plant engineering and design. HDC's mission is to provide technical planning, engineering, design, and criteria development services for all existing and new hydroelectric power and flood control pumping plants. In addition, HDC must maintain, within Corps, the capability and proficiency required for the execution of the services stated above.

Marine Design Center
U.S. Army Corps of Engineers
Wanamaker Building, Rm600
100 Penn Square East
Phila., PA 19107-3390
Phone: (215) 656-6515

Internet: http://www.nap.usace.army.mil/mdc/fs21.htm

The Marine Design Center is the Corps of Engineers center of expertise and experience for the development and application of innovative strategies and technologies for naval architecture and marine engineering. We provide total project management including planning, engineering, and shipbuilding contract management in support of Corps, Army, and national water resource projects in peacetime, and augments the military construction capacity in time of national emergency or mobilization.

Engineering and Support Center
USACE
Huntsville, Alabama
Phone: (256) 895-1300

Internet: http://www.hnd.usace.army.mil/whoweare.aspx

The U.S. Army Engineering and Support Center, Huntsville, is a specialized agency of the U.S. Army Corps of Engineers. The Huntsville Center missions involve programs that are national or broad in scope; require integrated facilities that cross geographical boundaries; require commonality, standardization, multiple-site adaptation, or technology transfer; require a centralized management structure for the effective control of program development, coordination, and execution; or require services not normally provided by other Corps elements.

Professional Development Support Center
USACE Learning Center
P.O. Box 1600
Huntsville, Alabama 35807-4301
Phone: (256) 895-7401
Internet: http://pdsc.usace.army.mil/

The U.S. Army Corps of Engineers USACE Learning Center (ULC) is the Center for Learning and Training for the Corps of Engineers. It is under supervision of the Headquarters Directorate of Human Resources. The ULC manages and implements the Proponent-Sponsored Engineer Corps Training (PROSPECT) Program. This program provides job-related training through technical, professional, managerial, and leadership courses to meet the unique needs of the Army Corps of Engineers and other government agencies.

Institute for Water Resources
Casey Building
7701 Telegraph Road
Alexandria, Virginia 22315
Phone: (703) 428-8015
Internet: http://www.iwr.usace.army.mil/
Water Resources Information:
http://www.vtn.iwr.usace.army.mil/

The Institute for Water Resources (IWR) was formed to provide forward looking policy analysis, technology transfer and applied research in developing a new family of planning methodologies and analytical tools to aid the Civil Works water resources management program. IWR is a field operating activity under the supervision of the

Director for Civil Works, U.S. Army Corps of Engineers (USACE).

The Institute is the USACE center of expertise for integrated water resources management, focusing on planning analysis and hydrologic engineering, which includes: the collection, management and dissemination of all water resources-related information, technologies and policies, as well as navigation information, including the nation's waterborne commerce data. It also serves as the Corps center of expertise for collaborative planning and environmental conflict resolution. The Institute supports its mission by providing:

- Analysis of emerging water resources trends and issues
- State-of-the-art planning and hydrologic engineering methods, models and training
- National data management and results-oriented program and project information
- National and international collaboration on water resources issues
- Development of new risk-based decision-support methodologies and software tools
- Conflict resolution and public participation training and outreach

The Institute shares its expertise in providing research and direction for future water resources challenges through its national and international partnerships.

In 2007 IWR expanded its collaborative partnerships to include international outreach by establishing the International Center for Integrated Water Resources Management (ICIWaRM). ICIWaRM, was nominated as a UNESCO Category II Water Centre, is hosted by IWR, working in collaboration with key university, federal agency and non-governmental partners sharing an interest in the advancement of the science and practice of integrated water resources management around the globe. IWR's new Conflict-Resolution & Public-Participation Center (CPC) focuses both on the processes associated with conflict resolution and the integration of public participation techniques with decision support and technical modeling (Computer Assisted Dispute Resolution (CADRe)).

IWR facilities include its National Capital Region and Navigation Data Center (NDC), both at the Humphreys

Engineer Center in Alexandria, Virginia; the Hydrologic Engineering Center (HEC) in Davis, California; and the Waterborne Commerce Statistics Center (WCSC), part of NDC, located in New Orleans, Louisiana.

Hydrologic Engineering Center
609 Second Street
Davis, CA 95616-4687
Phone: (530) 756-1104
Internet: http://www.hec.usace.army.mil/

The Hydrologic Engineering Center is a world-renowned research and development, training, and consulting organization in the area of hydrologic engineering and hydrologic models. It provides expertise in hydrologic analysis; river hydraulics; unsteady flow analysis; sediment transport; reservoir analysis; dam break analysis; flood damage reduction planning; statistical methods in hydrology; flood warning-preparedness systems; real time water control; hydrologic data management; flood forecasting; water quality analysis; and ground water analysis. The center also provides training and technical assistance in above areas of technical expertise around the globe.

Special Requirements:

A. Instructions for Technical Reports

The Participating Agency will prepare and submit a draft of all technical assistance support activity reports to the USAID Project Manager COTR and the Operating Unit technical assistance support activity technical representative for comments and approval. The Participating Agency shall incorporate any recommended changes and finalize each report and submit the final version in paper copy (at least one each) to both the Operating Unit technical representative and the USAID COTR. The Participating Agency will also provide, as appropriate, or as specified in the technical assistance support activity deliverables (or as requested by the COTR), any graphics and other presentational materials and products, such as PowerPoint slides, photographs (including digital format), tabular representations, and electronic copies of reports.

B. Technical Assistance Support Activities Deliverables

Specific deliverables will be defined under each Technical Assistance Support activity that is required under this Agreement. Some technical Assistance Support may be provided "virtually", so that Participating Agency personnel may provide technical assistance through means of conducting desk studies, participating in conference calls and video conferencing, white papers, emailing, reviewing documents and providing comments, making recommendations and providing options, and other means not requiring travel or direct presence of Participating Agency personnel at the site of the requesting USAID Operating Unit (OU).

Note: In addition to the USAID Contract Officer (CO), the USAID Project Manager will be the only USAID Technical Office representative authorized to define specific Technical Assistance Support activities to be executed under this Agreement.

C. Technical Assistance Support Activities Log

The Participating Agency will prepare and maintain a Technical Assistance Support activities log of all technical assistance support activities required under this Agreement. A sample of the format to be followed for the TA Support Activities Log will be supplied by the USAID COTR upon Agreement implementation at a minimum; the TA Support log shall contain the following information:

USAID organizational Unit (Mission/Bureau & office) requesting technical assistance support
Name of USAID Operating Unit staff person (TAS manager) requesting technical assistance
Title and short description, of the technical assistance support to be performed
The estimated total LOE and budget of the work, including TA team composition
Period of performance (start date and end date)
Schedule of performance
Due date(s) (including draft due dates) and deliverables
Record of USAID TA Manager deliverables acceptance, with dates.

D. Technical Direction

Technical direction during the performance of this Agreement shall be provided by the USAID Project Manager (Contracting Officer's Technical Representative (COTR)) and the requesting USAID Operating Unit technical assistance activity representative.

E. Reports

Reports furnished under this Agreement for Technical Assistance Support Activities shall be furnished as specified below:

1) One copy to the USAID/W COTR and one copy (or other copies as directed in TA Support Activity deliverables and description) to the USAID Operating Unit technical representative; reports will be due related to overseas travel in draft before leaving the USAID country mission whenever possible or as specified in the TA deliverables and activity description; final reports of overseas travel will be due not later than 30 days following completion of travel or as specified in the TA deliverables and activity description; and

2) Two final copies in accordance with CIO/KM requirements to CIO/KM/DI, Ronald Reagan Building, Washington, D.C. 20523.

F. Vouchers

When submitting vouchers for approval under this Agreement, the Participating Agency should disaggregate items by TA Support Activity, and identify each item by the specific USAID Operating Unit (OU) fund cite that corresponds with the requesting USAID Mission/Bureau/Office originating the TA Support request, so that payments can be deducted from the correct Operating Unit fund cites.

Additional Reporting Requirements

The Participating Agency shall update the TA Support Activity Log on an ongoing basis, and will provide a copy to the USAID COTR on the same schedule that vouchers are prepared and submitted (on a monthly or quarterly basis), showing level of effort (LOE) expended and other direct costs and funds committed and expended, for each TA Support activity at the same time that the vouchers are submitted to USAID Financial Management (FM) for reimbursement.

Quarterly financial statements should be submitted together with each Quarterly Technical Progress Report.

Final reports shall be submitted for each quick technical assistance support activity as each activity is completed, or as otherwise specified in the TA Support activity description.

The Participating Agency shall submit brief Quarterly Technical and Financial Reports not more than 30 days after the end of each quarter, summarizing the technical assistance support activities carried out, and highlighting major accomplishments (including a copy of the current activity log summation) under this Agreement, and detailing level of effort (LOE) and Other Direct Costs (ODCs) expended and unexpended funds remaining to date for each TA Support Activity. Level of Effort and Other Direct Costs shall be disaggregated by TA Support Activity and Requesting/Sponsoring USAID Operating Unit and related USAID OU fund cite.

Annex B
Budget (Estimate)

Budget Item	Initial Amount	Total 5-YR Amount
Labor[1]	$ 220,000	$ 4,400,000
Benefits (23%)	$ 50,600	$ 1,012,000
G & A (29%)	$ 78,500	$ 1,570,000
Travel	$ 55,000	$ 1,100,000
Per Diem	$ 75,000	$ 1,500,000
ODCs (Workshops/ Training/Supplies, etc...) Supplies, etc.)	$ 20,900	$ 418,000
Total	**$ 500,000**	**$ 10,000,000**

[1] Labor line item includes 8% effort for Program Management by HQ USACE