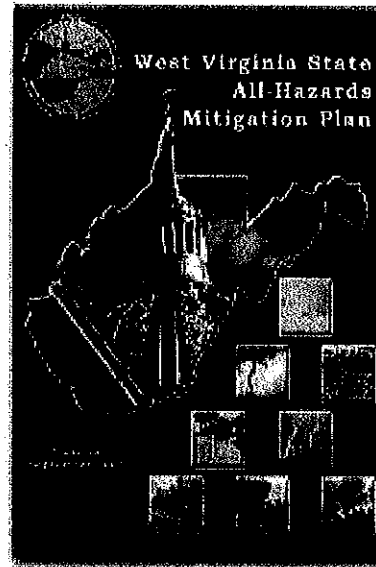


ORIGINAL

Statement of Qualifications for Statewide Standard All-Hazard Mitigation Plan Update



Submitted to:
State of West Virginia
Department of Administration
Purchasing Division
2019 Washington Street East
Charleston, WV 25305-0130

July 22, 2009



URS

URS Corporation
#4 Mission Way, Suite 201
Scott Depot, WV 25560

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PURCHASING DIVISION
STATE OF WV



July 22, 2009

Mr. John Abbott
Purchasing Division
2019 Washington Street, East
P.O. Box 50130
Charleston, WV 25305-0130

**Re: Statewide Standard All-Hazard Mitigation Plan Update
RFQ No. HSE09051**

Dear Mr. Abbott:

URS Corporation is excited about the opportunity to present our qualifications for the Statewide Standard All-Hazard Mitigation Plan Update. URS is nationally recognized as a leader in mitigation planning, having performed work for the Federal Emergency Management Agency (FEMA) and many state and local emergency management agencies across the country including preparation of hazard mitigation plans for many counties and states.

When we combine URS's national perspectives with our local understanding of issues in West Virginia, it is clear that West Virginia Division of Homeland Security and Emergency Management (WVDHSEM) will be provided with the strongest possible mitigation planning support.

The statewide plan update requires a consultant committed to excellence in all aspects of hazard mitigation planning, from risk assessment, to involvement of other agencies, to plan implementation. URS, with more than 55,000 professional planners, engineers, and scientists in more than 300 offices, is one of the leading consulting firms in the country. We have more than 200 staff in West Virginia and have a long-standing reputation for service excellence to agencies in this state.

As you will see in the enclosed submittal, URS has an unequalled understanding of the requirements of the Disaster Mitigation Act of 2000 and of the All-Hazard Mitigation Plan Update based on experience on hazard mitigation for FEMA and on state and local hazard mitigation plans.

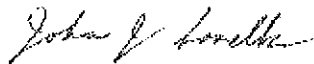
URS has substantial professional resources to devote to the proposed work to ensure that all commitments for quantity, quality, and timeliness of deliverables are met. In addition to the materials contained in this proposal, URS can provide the following confirmations:

- We will perform this work with our own staff and will not be using any subconsultants.
- URS is a vendor that is registered to perform work in West Virginia.

URS Corporation
#4 Mission Way, Suite 201
Scott Depot, WV 25560
304-757-6642 (Phone)
304-757-1677 (Fax)
www.urscorp.com

As you can tell from this transmittal letter and the accompanying proposal, URS has assembled the most highly qualified technical experts, capable of providing every service required by your Request for Quotation. Our team members are most eager to meet with you to review our qualifications in person. However, if you have any questions or need any clarifications in the meantime, please do not hesitate to call me at 304-757-6642 x103 or our Project Manager, Peter Kroll, at 412.503.4596.

Very truly yours,



John Smelko
Vice President

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URS is a nationally recognized leader in comprehensive emergency management. We have proven mitigation and all-hazard knowledge with unparalleled, hands-on FEMA mitigation program experience, both on the planning and grant sides. As is demonstrated in the following section, URS has been involved with hazard mitigation planning at the Federal, State, and local level since winning the first mitigation technical assistance contract 16 years ago. The URS team has the capability and capacity to perform all the work required by WVDHSEM with the highest professional standards and using no subcontractors. The support provided by the URS team includes considerable technical expertise in the following relevant areas:

- Preparing state and local hazard mitigation plans,
- Training state agencies on how to review and approve local hazard mitigation plans,
- Developing hazard mitigation plan guidance for FEMA,
- Reviewing state and local hazard mitigation plans for FEMA,
- Assessing flood impacts using the National Flood Mitigation Data Collection Tool and HAZUS-MH,
- Applying geographic information systems (GIS) for visualization of hazard areas in hazard mitigation planning,
- Assessing risks and quantifying losses from natural and human-caused hazards,
- Conducting cost-benefit analysis of mitigation alternatives, and
- Developing strategies for obtaining federal funds.

Furthermore, we know from our considerable experience that successful mitigation planning and implementation rely heavily on involvement of other stakeholders, such as state agencies. Therefore, an equally important component of our approach for mitigation planning involves encouraging and facilitating full participation by stakeholders in assessing risks, setting priorities, determining specific mitigation measures, and following through on implementation efforts.

Finally, our proposed project team has been involved in numerous planning projects at the Federal, State, regional and local level. Our successful completion of these projects demonstrates our in-depth understanding of the planning processes and the requirements of the Disaster Mitigation Act of 2000 and how to best apply them to projects that vary widely in size and scope. URS prepared plans for Alabama, Louisiana, Arizona and Guam, and reviewed and provided technical assistance to other States/territories including Rhode Island and the Virgin Islands for their first state plan updates.

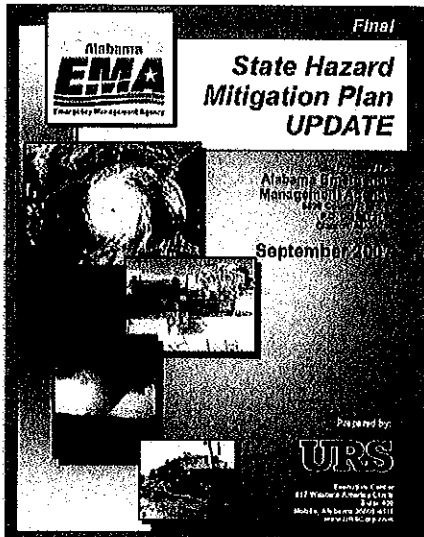
The following is a representative list of Hazard Mitigation Planning related experience in multiple states and US territories with selected project descriptions following the table.

URS Project Experience Summary		
	Hazard Identification and Risk Assessment Vulnerability Analysis	State hazard plan development update technical assistance
STATE AND LOCAL PLAN DEVELOPMENT		
State of Louisiana Hazard Mitigation Plan	X	X
State Hazard Mitigation Plan -- State of South Carolina	X	X
Development of State of Arizona's Plan to Mitigate Hazards	X	X
State of Alabama Hazard Mitigation Plan	X	X
State of Rhode Island Hazard Mitigation Plan		X
State of Maine Hazard Mitigation Plan		X
U S Virgin Islands State Plan Update		X
Mississippi Emergency Management DMA Training	X	
Comprehensive Natural & Man-Made Hazard Assessment - State of Ohio	X	
Guam Standard State Hazard Mitigation Plan	X	X
Pennsylvania State System of Higher Education (PASSHE) Hazard Mitigation Plans	X	
Hazard Mitigation Plans – Allegheny, Adams, Bucks, Blair, Clearfield, Somerset, Cumberland and Union County, Pennsylvania	X	
Technical Assistance for State and Local Hazard Mitigation Planning on behalf of FEMA		
Mitigation Planning How-To Guides	X	
Nationwide Standby Technical Assistance for Response & Recovery Contract (NISTAC) for FEMA	X	
Technical Assistance and Research Contract (TARC) for FEMA	X	
Flood Map Production Coordination Contract (FMPCC) – Hydrologic and Hydraulic Modeling and Flood Plains Mapping for FEMA Regions I-IV	X	
Technical Assistance for States and Communities in the use of HAZUS-MH during Mitigation Planning	X	

ALABAMA HAZARD MITIGATION PLAN DEVELOPMENT AND UPDATE

Client:
Alabama Emergency Management
Agency

Contact:
Debbie Peery
(205) 280-2476



In 2003 and 2007, URS assisted the Alabama Emergency Management Agency (AEMA) with the development, and subsequent update, of its DMA2000-compliant State hazard mitigation plan (SHMP). The State of Alabama Hazard Mitigation Plan showcases URS' understanding of implementation of the FEMA Hazard Mitigation planning and programs at the local level. Support was provided in all aspects of plan development, including hazard identification and risk assessment [HIRA], capability assessment, resource identification, and use of HAZUS to facilitate the risk assessment for critical facilities.

- State Hazard Mitigation Plan:** In 2003 URS was contracted by the State of Alabama to assist with development of the State's enhanced hazard mitigation plan. URS assisted AEMA in developing an Executive Order [EO] that established a 40 agency State Hazard Mitigation Council [SHMC] that was signed by the Governor early in 2004. In concert with AEMA, URS facilitated a series of SHMC meetings throughout development of the plan. URS and AEMA developed close working relationships with each of the Regional Planning Councils [RPCs] as well as with numerous other quasi-governmental, public non-profit and non-governmental organizations, all of which were routinely informed about progress on the plan throughout its development.

URS used a Statewide HIRA as the basis of the plan and employed a rating system to narrow the range of hazards included in detailed assessments to the three that dominated statewide historical damage. County and local plans were analyzed; their conclusions and recommendations were incorporated into the plan. AEMA and URS created a survey instrument that was disseminated to the RPCs to develop an understanding of local risks and hazard mitigation goals. For the plan to reflect a comprehensive understanding of the risks to State facilities and critical infrastructure, State-level organizations were surveyed to determine the extent of their physical and operational assets and risk exposure.

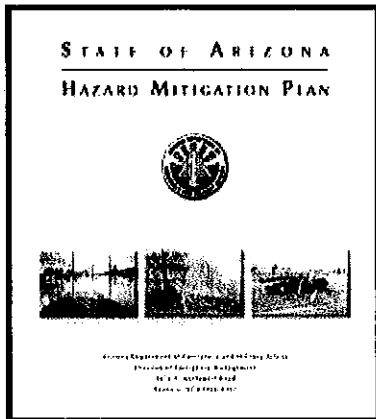
- Hazard Mitigation Plan Update:** In 2007 URS updated the Standard SHMP for the AEMA and supported the development of an Enhanced State Plan. In preparing these plans, URS and its subcontractors brought together the stakeholders by reuniting the SHMC. The overarching goal for the update was to rationalize the process of identifying and implementing appropriate hazard mitigation actions across the State. To that end, the plan update included a detailed characterization of natural hazards Statewide; a risk assessment that described potential losses to physical assets, people and operations; a set of goals, strategies and actions that will guide the State's mitigation activities; and a detailed plan for implementing and monitoring the required aspects of the Plan. Using archival data and statistical techniques, URS performed risk assessments for the most significant hazards in the State.

ARIZONA ENHANCED STATE HAZARD MITIGATION PLAN

Client:
 Arizona Department of Emergency and
 Military Affairs
 Division of Emergency Management
 5636 E. McDowell Road
 Phoenix, AZ 85008-3495

Contact:
 Darlene Trammell, SHMO
 602.392.7518
 Portia Nalley, State Task Manager
 Phone: (602) 392-7539
 Fax: (602) 392-7538
 E-Mail: trammellc@dem.state.az.us
 Web Page: www.dem.state.az.us

Contract Value:
 \$225,000



URS assisted the State of Arizona in the preparation of a statewide mitigation plan that addresses the requirements of the Disaster Mitigation Act of 2000. The State Standard Mitigation Plan consists of the following:

- Characterization of hazards affecting Arizona, including detailed documentation of mapping of historical events. This effort is addressing not only natural hazards as required by DMA 2000, but also a variety of human-caused hazards that could affect the State.
- Assessment of vulnerability and risk from the overall State perspective of determining those sources of risk that jeopardize the general health and sustainability of the State, and specific vulnerability of State owned and operated critical facilities. This includes application of FEMA's HAZUS software, as updated to reflect the most up-to-date data available from a broad range of sources.
- Articulation of clear goals, objectives, and priorities for use in the development of appropriate State-sponsored mitigation actions and mitigation programs at the county and local government and tribal levels.
- Development of a comprehensive, prioritized program of mitigation activities that will achieve the State's goals, objectives, and priorities. This program is being developed to set the stage for the three-year comprehensive update of the plan, as mandated by DMA 2000.

URS worked on the following elements to assist in achieving Enhanced Status:

- Integrating elements of State mitigation planning to the extent practicable with other State and/or regional planning initiatives. This will include a demonstration of the State's commitment to planning generally, and mitigation planning specifically.
- Demonstrating the capability at the State level to implement the plan and effectively manage federally funded mitigation grant programs such as the Hazard Mitigation Grant Program (HMGP) and the Pre-Disaster Mitigation Grant Program (PDM).
- Tracking success of completed mitigation actions demonstrating that the State effectively uses existing programs to achieve mitigation goals and the level of commitment required to support local mitigation planning.

The project was guided by a 35-member Statewide Hazard Mitigation Planning Team (HMPT) that consists of representatives of all major State agencies along with representatives of key local and federal agencies. The Plan conforms with the State's Automated Hazard Mitigation Planning System, which is designed to allow online access to the plan. The automated system is also being used as the model for all local mitigation plans in the State.

**HAZARD MITIGATION PLANS – 14 UNIVERSITIES FOR PENNSYLVANIA
STATE SYSTEM OF HIGHER EDUCATION**

Client:
Pennsylvania State System of Higher
Education (PASSHE)
Office of the Chancellor
Dixon University Center
2986 North Second Street
Harrisburg, PA 17110

Contact:
Alan Margraf
Director of Facilities Operations
717-720-4115

Contract Value:
\$1,400,000



URS prepared hazard mitigation plans for the 14 universities in the Pennsylvania State System of Higher Education:

- Bloomsburg,
- California,
- Cheyney,
- Clarion,
- East Stroudsburg,
- Edinboro,
- Indiana,
- Kutztown,
- Lock Haven,
- Mansfield,
- Millersville,
- Shippensburg,
- Slippery Rock, and
- West Chester

The process used for developing the 14 hazard mitigation plans for PASSHE was based on the FEMA methodology in *Building a Disaster-Resistant University* (FEMA Pub. 443) and the "how-to" guides (FEMA Pub. 386-1 to 386-8) and includes collaboration, consensus building, and detailed risk assessment through the following steps:

1. *Organize Resources* addresses the initial step of identifying the resources available and necessary to complete the effort. Interested and necessary parties are invited to form a planning team. An inventory of available planning documents is performed and existing plans and documents are collected.
2. *Hazard Identification and Risk Assessment* covers the identification of hazards that present risks to the each campus and the assets that are vulnerable to those hazards. Each University must assess its risks and vulnerability to the full complement of natural and human-caused hazards.
3. *Developing the Mitigation Plan* examines the development of the actual hazard mitigation plan document. The development of a comprehensive hazard mitigation plan should draw from and balance existing plans, should be integrated with local jurisdictions, and reflect the unique mission and characteristics of the University. The plan should be updated regularly and implemented across all levels of the organization.
4. *Adoption and Implementation* follows the mitigation plan through the last stage.

URS also updated the 14 university Emergency Operations Plan to bring them into compliance with the National Incident Management System (NIMS) and conducted emergency exercises.

**HAZARD MITIGATION PLANS
ADAMS, ALLEGHENY, BLAIR, BUCKS, CLEARFIELD, CUMBERLAND, AND
SOMERSET COUNTIES, PENNSYLVANIA**

Clients:
Allegheny County Dept. of Emergency Svcs.
400 North Lexington Street, Suite 200
Pittsburgh, PA 15208-2521
Attn: Susan Parker
412.473.2559

Adams County Dept. of Emergency Services
230 Greenmyer Lane
Gettysburg, PA 17325
Attn: Jonathan C. Hansen
717-334-8603

Blair County Emergency Services
615 Fourth St
Altoona, PA 16602
Attn: Gary Dennis
814-940-5905

Bucks County Planning Commission
1260 Alms House Road
Doylestown, PA 18901
Attn: Dennis Livrone
215-345-3422

Clearfield County Dept. of Emergency Svcs.
911 Leonard Street
Clearfield, PA 16830-3245
Attn: Melanie Voris
814.765.5357

Cumberland County Planning Commission
18 N. Hanover Street
Carlisle, PA 17013
Attn: Kirk Stoner
717.240.5381

Somerset County Planning Commission
300 North Center Avenue, Suite 540
Somerset, PA 15501
Attn: Bradley Zearfoss
814.445.1544

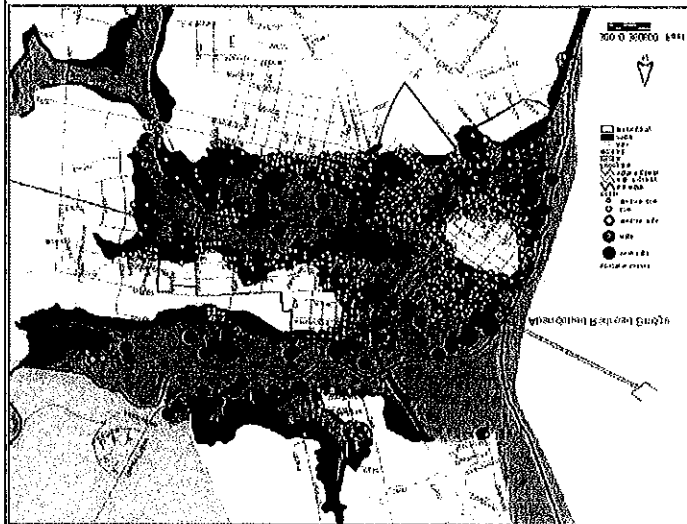
Union County Project Steering Committee
103 South Second Street
Lewisburg, PA 17837

URS worked with the citizens and local elected officials of Adams, Allegheny, Blair, Bucks, Clearfield, Cumberland, Somerset and Union Counties in Pennsylvania to develop hazard mitigation plans. The planning process complied with the federal regulations of the Disaster Mitigation Act of 2000. All these plans have been approved by PEMA and FEMA.

These multi-jurisdictional plans included as many as 130 municipalities (Allegheny County) that ranged from as many as 350,000 residents (City of Pittsburgh) to boroughs with only 75 residents, from urban to rural communities.

As flooding is the most significant hazard for these counties, all the plans included use of GIS to assess which property parcels were in the 100-year floodplain. Each plan identified the municipalities at greatest risk for each hazard. Because flooding risk can be most readily defined, this was based on GIS analysis of the number of structures in the 100-year floodplain (as an absolute number and as a percentage of the total structures in the township/borough) and depth of flooding; for later projects, FEMA's HAZUS-MH flood model was used to conduct a Level 1 hazard analysis. The presence of high-hazard dams was also a factor. Municipality-specific flood mitigation actions were developed where practical. The plans also included any past flood mitigation actions, such as property acquisition.

Repetitive-flood-loss properties were also delineated by municipality for each County. FEMA has specifically targeted these properties for hazard mitigation.



The mitigation plans reviewed historical incidents of hazards such as flooding and severe weather (including declared disasters) in

SECTION 2: SUMMARY OF EXPERIENCE

Attn: Dave Wagner
570.524.8871

Contract Values:
Allegheny County - \$263,000
Adams County - \$85,000
Blair County - \$27,000
Bucks County - \$35,000
Clearfield County - \$30,000
Cumberland Count - \$50,000
Somerset County - \$32,500
Union County - \$69,000

each County. Critical facilities such as hospitals, police/fire stations, county/municipal buildings, and schools were delineated, especially those in high-hazard areas. FEMA's Tornado & Hurricane Shelter Model was used to calculate the risk from those hazards in each County.

Other hazards that were profiled for some counties included landslides/subsidence, earthquakes, and man-made hazards such as nuclear incidents and hazardous material incidents.

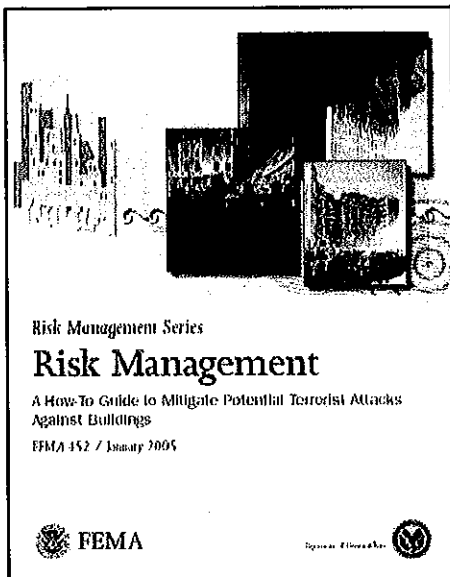
HAZARD VULNERABILITY ASSESSMENT - CHESTER COUNTY, PA

Client:
Chester County Department of
Emergency Services
601 Westtown Road, Suite 012
West Chester PA 19380

Contact:
Karl Mehn.
610-344-5011
Contract Value:
\$70,000

URS prepared a vulnerability assessment for man-made hazards in Chester County. The County Department of Emergency Services (DES) identified eight sites within Chester County area as critical to continuity of government, municipal operations, and/or general governmental or economic stability.

To better understand other potential terrorist targets in the area, the regional threat environment, and capabilities of the local and regional first responders, URS team met with representatives of the Chester County Police Chiefs Association, the Pennsylvania State Police, and Chester County DES staff. The participants in that meeting conducted a preliminary screening process based on the methodology in FEMA document 452, *A How-to Guide to Mitigate Potential Terrorist Attacks Against Buildings*. The primary design basis threat (DBT) for the critical facilities in the County was determined at this meeting.



Although no specific terrorist threats to facilities in Chester County were identified, patterns of terrorism are generally unpredictable, which make determining a specific threat for any given site or building difficult and largely subjective. Therefore, in addition to the primary DBT identified, other threats and hazards were considered as part of this assessment.

The URS report described the results of a screening-level vulnerability and risk assessment of the eight sites, and recommended measures to reduce risk by implementing substantive improvements in policies, procedures, protocols, equipment, technology, and physical-security upgrades.

The URS Assessment Team evaluated the site against man-made threats using the risk-assessment methodology outlined in DHS/FEMA Publication 426 (FEMA 426), *Reference Manual to Mitigate Potential Terrorist Attacks Against Buildings* (December 2003), and Publication 452 (FEMA 452) *A How-To Guide to Mitigate Potential Terrorist Attacks Against Buildings* (January 2005).

The most critical proposed protective measures recommended by URS included measures such as:

- Installation of perimeter protection from explosive blast;
- Addition of surveillance cameras;
- Improvement of access control systems; and
- Installation of lightning protection systems.

HAZARD MITIGATION TECHNICAL ASSISTANCE PROGRAM (HMTAP)

Client:
Federal Emergency
Management Agency
500 C Street, SW
Washington, DC 20472



URS has been supporting FEMA's Mitigation Directorate with a broad range of post-disaster technical support for implementation of mitigation programs. URS has been issued more than 1,000 Task Orders under three consecutive contracts and has provided support on over 200 disaster declarations in all 10 FEMA Regions.

Timeliness of response has been key to delivery of service to FEMA on this contract. URS has mobilized staff in less than 48 hours, more than 130 times to meet FEMA's needs. URS has not had one occurrence where the rapid staffing needs of FEMA could not be met.

Client Comments:
"The technical proficiency, project management and professionalism exhibited by URS during these efforts have been of the highest caliber. Based on my experience in working with URS, I would recommend this team for future work". Michelle McQueeney Chief of Staff, FEMA Gulf Coast Recovery Office

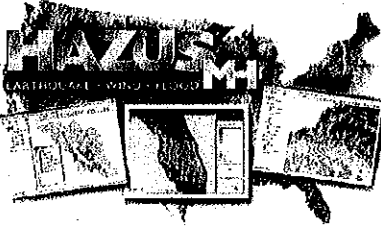
The range of technical support includes inventory of residential homes and evaluation for substantial damage, database development, and management of inventoried data, community relations and public involvement, insurance adjustment, and appraisal services. The types of disasters have included riverine and coastal floods, hurricanes, tornadoes, earthquakes, wildfires, ice storms, and landslides.

The work under HMTAP has also included extensive efforts related to natural hazard mitigation planning. URS draws on a wealth of natural hazard mitigation planning experience gained from work with local communities as well as State and Federal agencies nationwide. In addition to preparing more than 350 plans for States and local communities, URS has reviewed over 400 plans, provided technical assistance on updating State plans, and has developed workshop materials and led over 25 workshops about preparing and reviewing hazard mitigation plans.

URS institutes a client feedback program rating our performance on every Task Order under this contract. URS has been rated as exceeding FEMA's expectations on approximately 50 percent of the completed Task Orders in the last 5 years. On completed Task Orders, URS has finished all work an average of 17 percent under budget. This has resulted in more than \$25 million in savings to FEMA since 2000.

HMTAP TASK ORDERS

Client:
Federal Emergency
Management Agency
500 C Street, SW
Washington, DC 20472

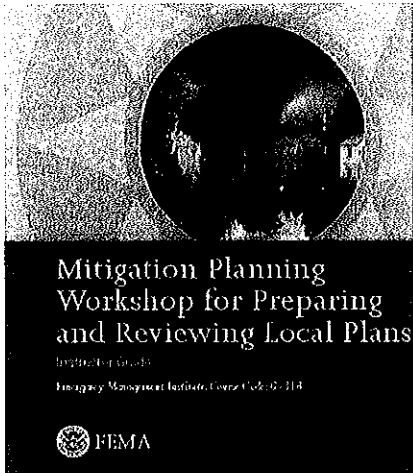


- **RL and SRL**, URS is continuing to provide support to FEMA updating the NFIP Repetitive Loss (RL) data. URS conducts data mining of the RL database, determines necessary updates, and enters the updates into the RL database. URS also enters updates to the RL database from data requests from States and the Regions. Additionally, URS will conduct in 2009 a review of approximately 2,000 RL records in Puerto Rico to validate pending Severe Repetitive Loss (SRL) properties and to identify data anomalies, address errors, duplicate listings and detached claims and conduct a site visit to correct identified problems with the pending SRL property records.
- **National Program for Benefit-Cost Analysis (BCA)**: We convened panels of nationwide experts in all hazards for re-engineering of the BCA process. We developed a revised system, new software, and supporting documentation/training materials; and assisted FEMA with nationwide roll-out/training. Our efforts resulted in a system that provides more accurate results, is significantly easier to use, and provides better documentation of the data, resulting in better grant applications. We also developed new training for the revised BCA software, including on-line training; successful completion of the class qualifies participants for continuing education unit credits.
- **Loss Avoidance Study**: We conducted losses-avoided studies in California, North Dakota, and Missouri. We are also assisting FEMA in the ongoing development of standard methodologies for all losses-avoided studies.
- **Training**: URS has developed and delivered numerous FEMA courses throughout the Nation, including Mitigation Disaster Operations, EST Mitigation Operations, EST, RSV Earthquake Screening, RSDE, BCA, Mitigation Planning, Coastal Construction, NHPA Compliance, NEPA Courses, HAZUS, Building Codes, and DMA 2000 Planning. URS provided instructors, as well as training program logistics and coordination. Some of the training initiatives, such as the PDM program, have required more than 50 courses to be delivered nationally over a very short time span. URS has also been developing web-based training to provide State and local governments with constant access to instructional material. When possible, the training is developed to qualify for continuing education credit.
- **RSDE**: URS developed the automated RSDE and SDE tools used for thousands of damage evaluations and to facilitate mitigation acquisition programs. URS has also provided training and technical support for RSDE to FEMA and State and local staff numerous times following hurricane, flood, and tornado disasters.

SECTION 2: SUMMARY OF EXPERIENCE

DISASTER MITIGATION ACT OF 2000

Client:
Federal Emergency
Management Agency
500 C Street, SW
Washington, DC 20472



As part of the Hazard Mitigation Technical Assistance Program (HMTAP) contract, FEMA has issued URS multiple task orders focused on implementing the Disaster Mitigation Act of 2000 (DMA2K), including:

- Develop guidance and evaluation criteria to be applied by FEMA headquarters and regional offices at the local and State levels to promote compliance with DMA2K, including integrating risk assessment and mitigation planning for natural and human-caused hazards. This guidance will help regulators evaluate mitigation plans as well as provide significant direction for plan authors;
- Develop training materials for workshops at the Federal, State, and local levels on DMA2K;
- Review State and local plans to determine their compliance with DMA2K, providing technical assistance to FEMA's 10 regional offices;
- Develop and deliver Hazard Identification and Risk Assessment (HIRA) workshops to assist State and local communities in determining the best way to address data limitations when preparing risk assessments;
- Assist FEMA with the administration and technical aspects of the Pre-Disaster Mitigation Grant program; and,
- Provide DMA-compliant statewide mitigation planning support for Mississippi and Louisiana focused at the local community level.

STATE & LOCAL HAZARD MITIGATION PLANNING HOW-TO GUIDES

Client:
Federal Emergency
Management Agency
500 C Street, SW
Washington, DC 20472



As part of the HMTAP contract, FEMA has issued more than 30 task orders to URS focused on creating mitigation plans for States and local communities. As part of that work, URS was tasked with the development of a series of mitigation planning "how-to" guides to assist States, communities, and Tribes in enhancing their hazard mitigation planning capabilities. These guides are designed to provide the type of information States and communities need to initiate and maintain a planning process that will result in safer communities. These guides are also intended to be applicable to States and communities of various sizes and varying ranges of financial and technical resources. The how-to series relies on a four-phase process for mitigation planning as follows:

- Organizing and mobilizing community resources to undertake mitigation planning;
- Identifying hazards and assessing risks;
- Developing a strategic mitigation plan; and,
- Implementing and monitoring the plan.

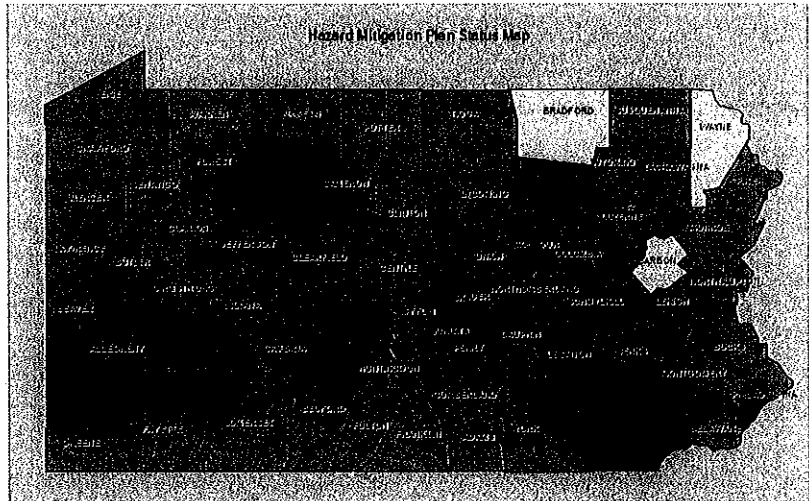
Beyond the "core" guides, URS supported FEMA in developing special topic guides including adapting the mitigation planning process to aid higher education institutions when preparing their hazard mitigation plans and using the plan to prepare successful applications for hazard mitigation assistance funding.

FEMA REGION III

ASSESSMENT OF HAZARD MITIGATION PLANNING

Client:
 Federal Emergency
 Management Agency
 Region III
 615 Chestnut Street
 One Independence Mall, Sixth Floor
 Philadelphia, PA 19106-4404

In 2008, as State hazard mitigation plans throughout Region III were due for updating and as local communities began to consider updating plans to comply with the regulations, FEMA Region III contracted with URS to conduct a Gap Analysis. The Disaster Mitigation Act of 2000 requires that hazard mitigation plans be updated regularly. State plans must be updated every three years, and local plans must be updated every five years. Individual States, such as Pennsylvania shown below, provided data on the dates when it will be more than five years since local plans were approved



and adopted showing that many plans would be updated within a very short timeframe. The analysis also revealed specific needs for provision of training and technical assistance to local jurisdictions in order to facilitate the update of plans. Based on the findings of the Gap Analysis, the Region was poised to develop a strategic plan to meet identified needs.

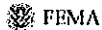
TECHNICAL ASSISTANCE AND RESEARCH CONTRACT

Client:
Federal Emergency
Management Agency
500 C Street, SW
Washington, DC 20472



National Flood Mitigation Data Collection Tool

The National Tool for NFIP
v. 2.0
User's Manual
FEMA #92 / Mar 2005



Under three consecutive contracts URS has supported FEMA's mission to strengthen national building codes and provide sound engineering guidance and post-disaster forensic engineering related to natural and man-made hazards under this ID/IQ contract. URS supports FEMA by producing expert guidance documents and training, which help States and local governments to improve the quality of buildings through implementation of disaster-resistant design and installation techniques. URS is providing FEMA with both lead program management support and technical services on this performance-based contract.

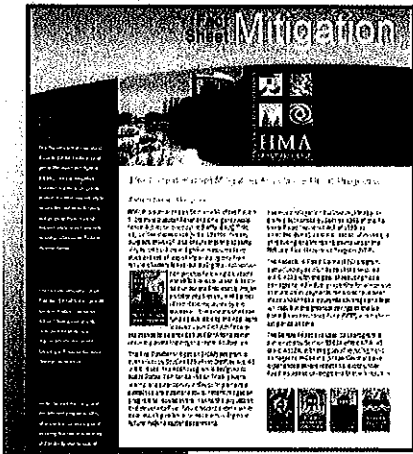
- **SRL Data Validations:** For the past three years, URS has been researching Severe Repetitive Loss (SRL) properties to identify and resolve issues with the property data to validate the data used to categorize properties as SRL properties. Validation includes address, claims, and property value data research through FEMA's NFIP Database of Repetitively Flooded Properties and through contact with local officials such as tax assessors. The general objective of the issued task order for this work is to investigate data anomalies identified with NFIP property records for SRL properties. Additionally, the project team is working to resolve data issues/errors that are preventing existing properties from being properly identified as SRLs and correcting these errors.
- **Repetitive Loss Tools:** FEMA has developed several tools that are used together to collect data and information about floodprone properties and to help in the administration of the NFIP and mitigation efforts. These tools are: the National Flood Mitigation Data Collection Tool (NT), BureauNet and Data Exchange, and the NFIP Next Generation (NextGen) Simple Quick Access Net or SQANet. In support of FEMA's ongoing effort to ensure that community, State, and Federal staff are adequately trained in the use of these tools, URS conducted a baseline survey to determine the targeted users' training needs, developed training materials based on those needs, and conducted a "pilot" training workshop at the Association of State Floodplain Managers annual meeting in Reno, NV in 2008.
- **Design Publications:** Produced more than 24 design publications to mitigate both natural hazards and man-made threats against Critical Infrastructure and Key Resources (CIKR) that are used frequently by States, local governments, and homeowners to build more disaster-resistant structures. These include design publications, technical bulletins, and recovery advisories, often published by GPO, which requires the highest level of quality. A rigorous quality control procedure was developed to ensure expert deliverables (both hardcopy and on FEMA's Web site) aimed for high-volume requests and superior quality. Many projects were also recently completed in 2008 and 2009, including the Local Official's Guide for Coastal Construction (FEMA P-762) and the revised publications for residential and community safe rooms (FEMA 320 and 361).

**PROGRAM INTEGRATION AND SUPPORT
HAZARD MITIGATION ASSISTANCE PROGRAM (HMA)**

Client:
Federal Emergency
Management Agency
500 C Street, SW
Washington, DC 20472

As part of an indefinite quantity contract for mitigation grants implementation and mitigation planning, FEMA has issued more than \$6M in TOs over the past 2 years that are closely related to HMTAP tasks. HMA tasks focus on public meetings and outreach, workshop facilitation, policy analysis, integration of hazard mitigation grant program guidance, and mitigation grant application review and approval through the National Evaluation Panel (NEP)/National Technical Review (NTR) process.

Client Comments:
"The URS HMA Program Team not only delivered the unified FY2009 HMA guidance, they exceeded my expectations by completing this effort in a drastically compressed timeframe." Lloyd A. Hake, FEMA Grant Implementation Branch Chief



- **Hazard Mitigation Assistance Guidance:** URS was instrumental in combining guidance for pre-disaster mitigation programs for FY09 including PDM, FMA, RFC, and SRL. HMGP is being incorporated into the FY10 HMA Guidance. The URS team is assisting FEMA with coordinating internal/external stakeholder workshops focused on developing the guidance. By unifying grant program guidance, Applicants and subapplicants are better able to understand the programs, as well as the mitigation project and planning grant application and administration processes.
- **National/State/Private Partners:** URS has been supporting FEMA's relationship and coordination with ASFPM, State/Regional and National SHMO, NEMA, Hurricane, and National GIS/Mapping conferences.
- **Coalition Building:** URS worked with ASFPM and SHMOs in rolling out the SRL Pilot program in 2008 to publicize the program and to build partnerships with local and State Applicants.
- **HMA Summit:** Supported the FEMA HMA Summit—an annual summit of internal and external stakeholders from every State, territory, and FEMA Region, focused on building better HMA applications.
- **NEP and NTR:** This 6-week long, multi-workshop activity for the review and ranking of pre-disaster mitigation grants involves all the logistical planning associated with hosting and housing more than 300 reviewers. URS FY09 modifications resulted in a more efficient process than previous years due to synergies generated through better coordination and cooperation under one management team.
- **Policy Analysis:** Provided direct support to the Integrated Planning Team to identify outdated policies, regional variations in policy implementation, and prospective areas where HMA grant guidance could be improved through modifications in policy. Additionally, providing various program metrics and analysis to FEMA to aid in their reports to Congress and stakeholders on achievements of various programs.

The objectives of this task are to initiate the work effort and become more familiar with the WVDHSEM's expectations for the plan update.

Task 1: Revise Plan Format

1.1 Project Initiation Meeting: URS will contact the WVDHSEM to schedule a Project Initiation Meeting to discuss the mitigation plan update process and schedule. This will establish an interactive strategy for effectively completing the project. We will also discuss with WVDHSEM what type of format will be used to revise the existing plan.

1.2 Plan Reformatting: URS will revise the existing plan so that it meets the required format.

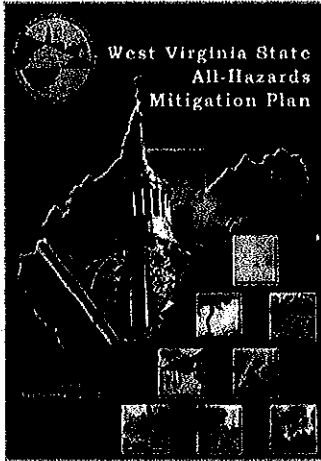
The objective of this task is to ensure that the updated plan includes all FEMA-required elements.

Task 2: Compliance With Standard State Plan Requirements

2.1 Plan Update: URS will review and update the existing plan to ensure that it includes all the elements of a Standard State Plan per 44 CFR §201.4. This will include updating the following sections of the plan:

- Section One – Introduction
- Section Two – State Mitigation Planning
- Section Three – Risk Assessment
- Section Four – GIS Database
- Section Five – Local Mitigation Planning
- Section Six – Mitigation Goals and Strategies
- Section Seven – Plan Monitoring and Maintenance
- Section Eight – References and Resources
- Appendices

2.2 Crosswalk: URS will include as an appendix to the updated plan a crosswalk used by FEMA Region 3 that indicates where each required element is located (by page number) in the state plan. This will expedite the FEMA review and approval of the state plan. Appendix Q of the existing plan includes such a crosswalk.



The objective of this task is to identify activities that support mitigation or that make mitigation difficult

Task 3: Integration With Other Planning initiatives

Working with WVDHSEM Mitigation and Recovery Section, URS will identify the most appropriate State agencies to involve in the plan update process. In the updated plan URS will discuss how:

- The State mitigation planning process is integrated with other new or ongoing State planning efforts (such as the West Virginia Flood Protection Program, Firewise West Virginia Program, etc.), and FEMA mitigation programs and initiatives so the updated plan can describe any obstacles to integration; and
- Coordination between Federal and State agencies changed over the past three (3) years;

The URS team will support WVDHSEM in coordinating with all the appropriate State agencies to ensure their participation throughout the plan update process.

The objectives for this task are to explain governmental mitigation policies/programs, evaluate cost-effectiveness of alternatives, and address RL and SRL properties.

Task 4: Project Implementation Capability

4.1 Policies & Programs: URS will list the State's policies and programs used to mitigate hazards and identify their eligibility as mitigation actions per FEMA's criteria. These policies/programs may include building codes, statewide legislation, and other means.

4.2 Cost Effectiveness: URS will explain methodologies for determining cost-effectiveness of selected mitigation actions per the guidance in OMB Circular A-94 and/or FEMA document 386-5 that was prepared by URS for FEMA. We will also discuss means of prioritizing or ranking the selected mitigation actions by cost-effectiveness and other FEMA-approved criteria, such as STAPLEE (social, technical, administrative, etc.).

4.3 Repetitive Loss Structures: URS will help the State to demonstrate in the updated plan its commitment to addressing Repetitive Loss (RL) and Severe Repetitive Loss (SRL) structures when considering mitigation activities. FEMA requires that RL and SRL properties be given high priority in mitigation planning. This will include a means for tracking RL and SRL properties, and development of detailed mitigation strategies.

Our in-depth knowledge of the new RL property viewer for the National Flood Mitigation Data Collection Tool (NT) will allow us to use this powerful software effectively for WVDHSEM. The RL viewer is a stand-alone application which can connect to any standard NT database that uses GIS to display RL/SRL properties over base-map data such as roads, streams, county and community boundaries, and Q3 flood maps. FEMA recommends the use of NT for flood mitigation projects.

Task 5: Assessment of Mitigation Actions

URS will explain how the State assesses the effectiveness of each mitigation project and tracks the avoided losses for each action taken. This will include the methodologies used to determine effectiveness and quantify avoided loss, both of which will be based on current FEMA guidance.

Task 6: Effective Use of Available Mitigation Funding

URS will document the State's attempts to effectively use available mitigation funding. The updated plan will correlate completed and planned projects to specific State mitigation goals and objectives and assess the effectiveness of the projects in achieving those goals, or in attaining progress towards those goals. URS has intimate knowledge of recently added pre-disaster mitigation programs including PDM, FMA, RFC, and SRL, that would be very useful in helping the State to further utilize the available mitigation funding.

Task 7: Commitment To a Comprehensive Mitigation Program

URS will support the State in demonstrating their commitment to a comprehensive mitigation program by noting all mitigation-related projects, activities or policies; even those not required by regulation.

The objectives for this task are to document the plan adoption and update process, and the documentation of compliance with applicable regulatory requirements.

Task 8: Adoption by the State

- 8.1 URS will document the legal process for the adoption of the final Statewide All-Hazards Mitigation Plan. This process will follow applicable state guidelines and include endorsement by the Director of WVDHSEM and heads of any agency with implementation responsibility.
- 8.2 URS will also document in the plan that the State understands and is in compliance with all applicable federal statutes and regulations related to grant funding.
- 8.3 URS will include a statement indicating that the plan will be amended whenever necessary to reflect new or revised federal regulations or statutes, or changes in State law, organization, policy, or State agency operation.

The objectives of this task relate to basic project management.

Task 9: Progress Reports and Draft Deliverables

- 9.1 URS will provide monthly progress reports in an agreed-upon format.
- 9.2 URS will provide quarterly progress reports and applicable deliverables to FEMA Region III, and this may include presentations to FEMA.
- 9.3 We will provide draft copies of deliverables for review by WVDHSEM at least 2 weeks in advance of any deadline.

METHODS AND PROCEDURES OF SERVICE

URS projects are successful due to established procedures and techniques for managing the work. A few of the important project management and organizational techniques that URS routinely employs include the following:

- ✓ **Project Management:** URS provides aggressive management to complete the work within the desired time frame. The **Project Manager**, Peter Kroll, PE, will be the primary point of contact for the work for WVDHSEM, serving as the coordinator for the project and providing overall direction for all research and planning activity, thereby ensuring consistency and coordination of all work products. The **Technical Manager**, Dr. Mary Shaw, AICP, CFM, located in Martinsburg, WV, will be the subject matter expert coordinating the technical staff in support of the Project Manager.
- ✓ **Quality Controls:** URS has a comprehensive company-wide Quality Assurance Program that is founded on the principles of continuous quality improvement and management commitment. Leading the quality control responsibilities is the **Principal-in-Charge**, John Smelko, who will ensure that clear lines of responsibility, authority, and accountability are established; that the quality of the staff is maintained; and that specific quality control procedures for auditing and corrective action are established.

- ✓ **Interdisciplinary Team Approach:** URS brings specialists of all facets of the hazard mitigation planning process to work together. Our team of specialists, covering areas of hazard mitigation planning, risk assessment and geographic information analysis, benefit-cost analysis, and stakeholder participation make up the Planning Team that provides on-the-ground process facilitation and research.

URS' organizational experience in preparing and writing mitigation plans is exemplary. The qualifications of the staff included in the project organization chart indicate that URS has the depth and breadth of experience to complete the mitigation plan efficiently and effectively. Our proposed staffing provides WVDHSEM with in-depth knowledge of FEMA's programs, augmented by an understanding of the challenges that face local communities. URS commits that highly qualified professionals will work in partnership the WVDHSEM to implement an effective and comprehensive hazard mitigation plan update.

As depicted in the Organization Chart, URS is organized with basic tiers of authority: Project Management; Task Leaders; and Technical Support Services.

- **Project Management** includes the Project Management Team and Quality Assurance Team. As indicated above, the Principal-in-Charge is the responsible party for contractual agreements with the State and can mobilize resources from the corporation as needed. The P-I-C is supported by the Project Manager who respectively provide coordination of the professional resources and ensure that the highest quality standards are maintained.
- **Task Leaders** cover the major elements of the project, such as Repetitive Loss Structures, Cost Effectiveness Assessment, Policy/Program Capability Assessment, etc.
- **Technical Support Services** provide specific input for relevant areas of interest. This interdisciplinary team includes expertise regarding a range of topics such as building sciences, natural and man-made hazards assessment, and geographic information systems (GIS).

This organization structure is based on a long history of projects of a similar nature and will provide the necessary level of service to meet and exceed the expectations of WVDHSEM.

A detailed Gantt chart schedule will be developed at project inception that will indicate the time frames for the various tasks and meetings described in the preceding work plan.

URS assumes that the WVDHSEM will provide the following for this project:

- Copies of the existing hazard mitigation plan and its appendices in editable format (e.g., MS-Word);
- All GIS data from the existing plan;
- Other existing relevant data (e.g., information on past mitigation projects, such as property acquisition in floodplains); and
- Members of a planning committee and a committee chairperson who can review inputs from URS and make decisions in a timely manner.

INDIVIDUAL EXPERTISE

As the prime contractor to FEMA's Mitigation Directorate, URS is playing an important role in supporting FEMA's development of mitigation planning standards and measurement tools FEMA will use to evaluate future state and local plans. The URS Team Experience Summary Table below provides a snapshot of the depth of hazard mitigation experience of the URS team. From planning to implementation, URS has a comprehensive command of the issues that face West Virginia.

SECTION 3: TECHNICAL DISCUSSION

Since URS works on a regular basis with reviewing local and state hazard mitigation plans for FEMA Regional offices, we have taken the step of contacting FEMA Region III and confirming that the potential involvement by URS with the State of West Virginia does not constitute a conflict of interest.

Name	Highest Degree	Professional License	Plan Preparation (322 or DMA plans)	Stakeholder Facilitation	Disaster Resistant University Plans	Hazardous Identification Risk Assessment	HAZUS	GIS Mapping	Plan Reviews (DMA Crosswalk)	Planning Guidance Development	Course Development/Training for Plan Preparation/Reviews	Strategic Planning	Plan Approval Tracking / NEMIS	Technical Assistance to Support State/Local Plan Preparation
	State/Local						FEMA/HQ/Regions							
Peter Kroll	MBA	PE	✓	✓	✓	✓	✓	✓						
Mary Shaw	PhD	AICP	✓	✓	✓	✓			✓	✓	✓		✓	✓
Richard Roths	MP	AICP	✓	✓		✓			✓	✓	✓			
Shubha Shrivastava	MP	AICP	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Sarah Trbovic	MP	AICP	✓	✓	✓	✓								
Aranzazu Pacqua	MP		✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	
Kurt Kaiser	MP		✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	
Pam Pogue	MA	CFM	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	
Jen Saprenberg	BA	CFM	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	
Esther Aranda	MCP	AICP	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	
Shane Parson	PhD	CFM	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	
Ann Stanley	BA	AICP	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	
Jae Park	PhD		✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	

PROJECT ORGANIZATION

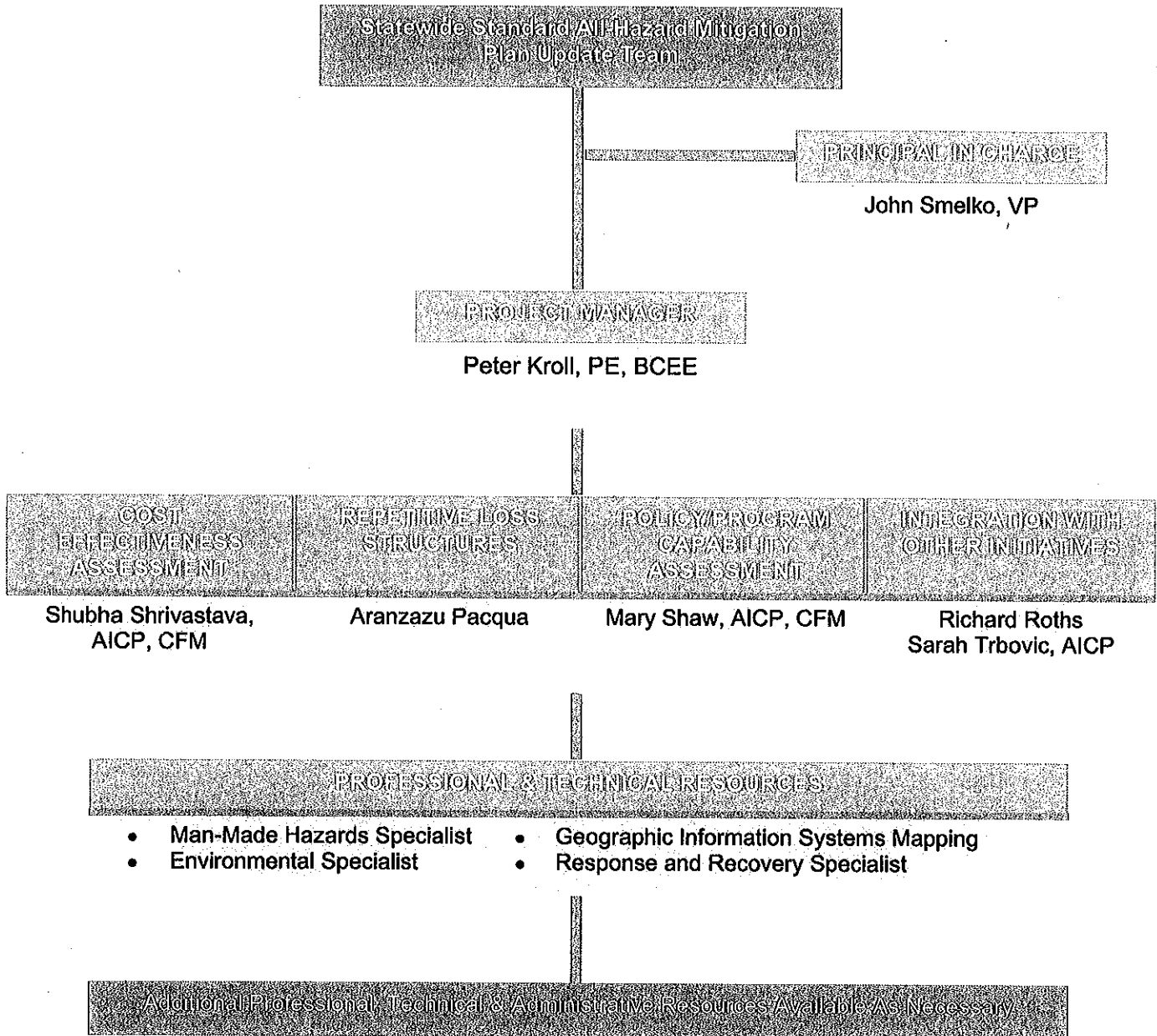
URS has the expertise, the commitment to excellence, and the dedication to client service to lead West Virginia in an update of the hazard mitigation plan that complies with federal requirements. The key personnel for the project are represented in the Organization Chart below.

The resumes presented on the following pages reflect the high quality of service available to WVDHSEM. URS key planners typically have passed certification testing through the American Institute of Certified Planners (AICP), and engineers typically have received Professional Engineering (P.E.) certification. As these resumes show, our staff have extensive FEMA, state and local emergency management, and mitigation planning experience.

Note that our organization chart and resumes present only senior staff who will be assigned to this project. Other support staff will be used as needed from the URS offices in Scott Depot, West Virginia, Pittsburgh, and Gaithersburg, Maryland. The senior staff presented herein are available for this assignment, and are anticipated to each spend a substantial amount of their time on this project over its duration.

SECTION 3: TECHNICAL DISCUSSION

**ORGANIZATIONAL CHART FOR STATEWIDE STANDARD
ALL-HAZARD MITIGATION PLAN UPDATE**



PETER J. KROLL, P.E. PROJECT MANAGER

UNIQUE QUALIFICATIONS

Peter Kroll has over 30 years of engineering experience. Mr. Kroll has a solid foundation in Hazard Analysis, Risk Management, and Emergency Planning. He has been involved in various hazard mitigation plans, and emergency operations plans projects. His project management skills cover a wide range of valuable experiences and successes.

EDUCATION

B.S., 1978, Chemical Engineering,
Illinois Institute of Technology
M.B.A., 1988, Washington University

PROFESSIONAL HISTORY

Principal Project Manager, URS,
1998 -Present
Branch Manager, ERM, 1996-1997
Air Quality Manager, ICF Kaiser,
1990-1995
Process Engineering Manager,
IWES, 1990-1978

REGISTRATION

Professional Engineer in West
Virginia, Pennsylvania, Ohio
URS Certified Project Manager.

TRAINING

FEMA EMI Courses:

- IS-100, Introduction to ICS
 - IS-120, Introduction to Exercises
 - IS-139, Exercise Design
 - IS-195, Basic Incident Command System
- IS-200, ICS for Resources and Single Action Incidents
- IS-235, Emergency Planning

RELEVANT EXPERIENCE

- Project manager for Hazard Mitigation Planning (for natural and man-made hazards) per Disaster Mitigation Act of 2000 for Adams, Bucks, Blair, Clearfield, Cumberland and Somerset Counties in Pennsylvania. These were multi-jurisdictional plans that encompassed all townships, boroughs, and cities within each County. All the plans have been approved by FEMA.
- Project manager for Hazard Mitigation Planning (for natural and man-made hazards) for 14 universities in the Pennsylvania State System of Higher Education. These are each single-jurisdictional plans that will eventually be integrated into the respective County hazard mitigation plans. This project involved detailed risk assessment for natural and human-caused hazards, such as hazardous materials releases and terrorist attacks at each campus. This included on-site assessment by URS security professionals of the security of critical facilities and proposed mitigation actions to address the identified vulnerabilities based on the methodology in the *Primer to Design Safe School Projects in Case of Terrorist Attacks*, (FEMA Pub. 428)

URS also updated the 15 PASSHE Emergency Operations Plans (EOPs) to bring them into compliance with the National Incident Management System (NIMS). URS planned and conducted tabletop exercises at the universities for various simulated emergencies, such as an active shooter. The design and conduct of these exercises was based on Homeland Security Exercise and Evaluation Program (HSEEP) methodology.
- Project manager for Hazard Mitigation Planning (for natural hazards) per Disaster Mitigation Act of 2000 for Madison County and Coshocton County, Ohio. Used FEMA's HAZUS-MH software to assess flood damage for Coshocton County.
- Project manager for Hazard Vulnerability Assessment for Chester County. This project evaluated risk from technological and manmade hazards to critical county facilities (including West Chester University) using the methodology in FEMA publication 452.
- Managed preparation of flood hazard assessment for Allegheny County, Pennsylvania's Hazard Mitigation Planning.
- Prepared revised Emergency Operations Plans for Greene County, Pennsylvania and Madison County, Ohio.
- Applied geographic information systems (GIS) and other software tools (ArcView/ArcGIS, HAZUS, HAZUS-MH, CVAT, CAMEO, ALOHA, and LandView) for hazard identification and loss estimation.

MARY SHAW, PhD, CFM, AICP HAZARD MITIGATION PLANNER

UNIQUE QUALIFICATIONS

Dr. Shaw has extensive experience working with local communities, state agencies, and with FEMA in hazard mitigation and community recovery. Dr. Shaw led a team of experts in the development of the FY 10 FEMA mitigation grant unification guidance. She currently manages the FEMA planning technical assistance task order, coordinating planners across the country to conduct hazard mitigation workshops and plan reviews.

EDUCATION

PhD/City & Regional Planning
MS/Urban Studies
MS/Mathematics
BA/Mathematics; Economics

PROFESSIONAL HISTORY

URS, Senior Urban Planner,
2006-Present
20 years with other firms

REGISTRATION

American Institute of Certified
Planners (AICP)
Certified Floodplain Manager

BACKGROUND

Dr. Shaw is an urban planner whose practice has most recently focused on hazard mitigation and disaster recovery planning. Earlier work centered on floodplain management, community economic development, and parks and recreation planning. She has taught graduate planning courses covering a variety of topics including statistics and planning theory as well as undergraduate calculus. Her research has focused on hazard mitigation, public participation, growth management, and post-disaster recovery.

RELEVANT EXPERIENCE

Relevant examples of Dr. Shaw's work experience in mitigation planning include:

- Task lead for preparation of 2010 grant application guidance for five **Hazard Mitigation Assistance (HMA)** programs, for FEMA Mitigation Division, Risk Reduction Branch, 2008-2009.
- Provided technical assistance to planners in **U.S. Virgin Islands and Rhode Island** for updating State Hazard Mitigation Plans
- Provided technical assistance to FEMA Region III States including West Virginia for a **Gap Analysis** of mitigation planning needs.
- Provided technical assistance to local community officials, State of Mississippi Emergency Management Agency officials, and FEMA staff regarding preparation of **Repetitive Flood Claims** Program applications and associated benefit/cost analyses.
- Provided technical assistance to communities in Mississippi regarding preparation of disaster recovery plans following Hurricane Katrina.
- Provided technical assistance to U.S. Army Corps of Engineers during initial stages of preparing report on de-authorization of Mississippi River Gulf Outlet.
- Provided training and technical assistance throughout the **State of North Carolina** to local officials regarding adoption and enforcement of flood damage prevention ordinances and the flood map modernization process
- Developed updated guidance document about writing **standard state hazard mitigation plans**. Drafted floodplain management section of the State of North Carolina hazard mitigation plan and participated in stakeholder meetings during plan development.
- Reviewed local hazard mitigation plans, **state hazard mitigation plan updates**, and plans prepared by universities for compliance with requirements of federal legislation, DMA 2000.
- Presented workshops on developing and reviewing hazard mitigation plans for FEMA Region VI. Organized multiple workshops on land use regulations, parking and economic development policies, and natural hazard mitigation for professional planners.

SHUBHA SHRIVASTAVA, AICP, CFM HAZARD MITIGATION PLANNER

UNIQUE QUALIFICATIONS

Shubha Shrivastava offers professional planning knowledge and skills with state, local and federal hazard mitigation planning experience.

EDUCATION

University of Illinois at Urbana
Champaign:
M.U.P., Urban Planning, 2002
School of Planning & Architecture,
New Delhi, India: B.P.P., Physical
Planning, 2000

PROFESSIONAL HISTORY

URS, Urban Planner, 2002-Present
French & Associates, Ltd. Assistant
Planner/Intern, 2001-2002
University of Illinois, Research
Assistant, 2000-2002

REGISTRATION

Certified Floodplain Manager
American Institute of Certified
Planners (AICP)

PROFESSIONAL AFFILIATIONS

Association of State Floodplain
Managers
American Planning Association
Maryland Association of Floodplain
and Stormwater Managers

BACKGROUND

Ms. Shrivastava is a URS lead planner to FEMA Headquarters mitigation planning staff. Recently she has been the Project Manager for "On-call Plan Review and Technical Assistance" task order under the Hazard Mitigation Technical Assistance Program (HMTAP) contract with FEMA. Under this task order she has completed over 50 plan reviews for compliance with DMA 2000, including review of State Plan Updates and University mitigation plans for FEMA Region III, provided technical support to local jurisdictions in preparing hazard mitigation plans and conducted local hazard mitigation training workshops. Ms. Shrivastava is the primary author for two recent FEMA "how to" guides on hazard mitigation planning (FEMA Publication Series 386), and contributing author to the other guides.

RELEVANT EXPERIENCE

- Project Manager for multiple ongoing tasks under the Task Order for Mitigation Planning Technical Assistance (avg. \$40K per month) as part of the Hazard Mitigation Technical Assistance Program (HMTAP) contract with FEMA Headquarters.
- Plan Reviewer on behalf of FEMA for evaluating local and state hazard mitigation plans' compliance with the requirements of Disaster Mitigation Act (DMA 2000). Over 50 plans reviewed in the last 4 years, including **2007 updates of State Hazard Mitigation Plans.**
- Contributing author of the 2007 update of the Mitigation Planning Workshop (Course G-318) that teaches how to prepare hazard mitigation plans and how to review them.
- Provided technical assistance to the **State of Rhode Island** to explain the effort needed to update the State Hazard Mitigation Plan
- Contributing author, responsible for the hazard identification process for the **State of Alabama Hazard Mitigation Plan.** Responsible for conducting HAZUS analysis for the 2007 update of the plan.
- Conducted research and prepared community profiles and hazard profiles for the **State of Arizona Hazard Mitigation Plan.**
- Contributing author, responsible for description of State and local coordination process for the **State of South Carolina Hazard Mitigation Plan.**
- Lead planner for eastern region campuses of the Pennsylvania State System of Higher Education hazard mitigation plans, responsible for planning committee meetings and preparing hazard identification and vulnerability assessment parts of the plans.
- Organized and assisted in facilitation of Strategic Planning sessions for the Mitigation Planning Team of FEMA Headquarters. Prepared a Draft Strategic Plan and followed up with all the 10 Regions

RICHARD ROTHS, AICP PRINCIPAL PLANNER

UNIQUE QUALIFICATIONS

*Emergency Management
Mitigation Planning
Community Rating System
Floodplain Management*

PROFESSIONAL HISTORY

URS Corporation, 2004 - Present
FEMA, 1992 - 2004
DeKalb County Planning Department,
1983-1986
Rockford-Winnebago County
Planning Commission, 1979-1982

EDUCATION

MS/Urban Planning/1977/
Wayne State University
BS/Education/1971/Wayne State
University

REGISTRATION

American Institute of Certified
Planners (AICP)

Principal Planner, URS Corporation, 2004-Present

- Responsible for administering contracts with the Federal Emergency Management Agency (FEMA) particularly in FEMA Region V.
- Project Manager for URS on contracts with communities to prepare mitigation plans meeting the requirements of DMA2K, the Flood Mitigation Assistance (FMA) Program and the Community Rating System (CRS) on their behalf.
- Delivering training on the requirements of the Disaster Mitigation Act of 2000 (DMA2K) and reviewing plans prepared by communities to meet the DMA2K requirements.
- Task Order Coordinator (TOC) for FEMA TO 233, an approximately \$190,000.00 Contract to provide Technical Assistance regarding the Flood Mitigation Assistance (FMA) Program.
- Lead Instructor for Mitigation Planning at the National Hurricane Conference since 2006.
- TOC for FEMA TO 8-040, a \$12.5 M contract to provide Technical Assistance under the Hazard Mitigation Technical Assistance Program to FEMA Region VII for 28 disasters that occurred in 2007 and 2008.

Emergency Management Program Specialist, FEMA, 1992-2004

- Senior Planner in charge of coordinating all mitigation planning activities for the six States in Region V. Coordination includes creating and implementing training programs, technical guides and bulletins, brochures and newsletter articles to further mitigation activities at the State and local government level.
- Served on the workgroup that wrote the rules to implement the planning requirements of "The Disaster Mitigation Act of 2000," and assisted in the review of training documents created by FEMA Headquarters.
- Coordinated the review of all State and local mitigation plans under the Flood Mitigation Assistance Program, the Hazard Mitigation Grant program and the Pre-Disaster Mitigation Program.
- As the Earthquake Program Manager, responsible for providing technical assistance to State, county and municipal government regarding earthquake hazard reduction. This includes administering grants to State and local governments that are designed to reduce future damages from earthquakes in the central United States.
- Prepared the "Standard Operating Procedure for Post-flood Compliance Operations" for the Region, and was responsible for ensuring that flood damaged communities rebuilt in a responsible manner to reduce flood damages in the future.
- Helped create and teach the American Planning Association's Disaster Planning Course.

ARANZAZU PACQUA HAZARD MITIGATION PLANNER

UNIQUE QUALIFICATIONS

Ms. Pacqua has state hazard mitigation planning experience, as well as significant experience in supporting FEMA on projects such as Repetitive Loss Data Update and Technical Assistance.

EDUCATION

M.U.R.P., Florida Atlantic University
B.A., International Relations

PROFESSIONAL HISTORY

URS, Urban Planner, 2002-Present
Other Firms, 1997-2002

BACKGROUND

Ms. Pacqua has experience in hazard mitigation planning at the local, state and federal level. Currently she is the Task Lead for "On-call Plan Review and Technical Assistance" task order under the Hazard Mitigation Technical Assistance Program (HMTAP) contract with FEMA. Under this task order she has completed over 50 plan reviews for compliance with DMA 2000, including review of University mitigation plans, provided technical support to local jurisdictions in preparing hazard mitigation plans and conducted local hazard mitigation training workshops.

RELEVANT EXPERIENCE

- **Repetitive Loss Data Update and Technical Assistance.** Provide support to FEMA by updating Repetitive Loss (RL) data. Identify data anomalies, address errors, duplicate listings and detached claims. Provide on-site technical assistance to States and U.S. Territories on how to use the National Flood Mitigation Data Collection Tool.
- **Alabama Hazard Mitigation Plan Update:** Responsible for conducting hazard analysis using HAZUS-MH/MR2 to calculate damage loss estimations for critical facilities in the State of Alabama.
- **State of Alabama Hazard Mitigation Plan:** Assisted in the preparation of the plan from the initial stages. Conducted research and prepared hazard identification and profile for the plan and contacted agencies and collected data to conduct risk assessment for each hazard. Responsible for coordinating GIS work for the development of maps to support the hazard profile and vulnerability.
- **State of Arizona Hazard Mitigation Plan:** Conducted research and prepared community and hazard profiles.
- **Technical reviewer of benefit-cost analysis (BCAs)** submitted in support of the Hazard Mitigation Assistance (HMA) Grant Program (PDM, FMA, RFC, and SRL applications), task scheduling for the BCA team, and final report preparation to FEMA. In addition, conducted independent reanalysis of applicant BCAs to provide technically correct analyses. BCA team member for the development and testing of the scoring tool used to evaluate BCAs.
- **HMTAP Technical Assistance.** Assisted with Risk Assessment for the **State of Ohio and Wisconsin** Hazard Mitigation Plans.
- **Hazard Mitigation Assistance (HMA) program.** Responsible for developing daily operations of database to maintain a national point of contact for analysts to ask questions about grant policy in regards to different FEMA grant programs. Review content and reconcile comments of policy memos for incorporation into new unified HMA Guidance.

APPENDIX A
Purchasing Affidavit

STATE OF WEST VIRGINIA
Purchasing Division

PURCHASING AFFIDAVIT

VENDOR OWING A DEBT TO THE STATE:

West Virginia Code §5A-3-10a provides that: No contract or renewal of any contract may be awarded by the state or any of its political subdivisions to any vendor or prospective vendor when the vendor or prospective vendor or a related party to the vendor or prospective vendor is a debtor and the debt owed is an amount greater than one thousand dollars in the aggregate.

PUBLIC IMPROVEMENT CONTRACTS & DRUG-FREE WORKPLACE ACT:

If this is a solicitation for a public improvement construction contract, the vendor, by its signature below, affirms that it has a written plan for a drug-free workplace policy in compliance with Article 1D, Chapter 21 of the *West Virginia Code*. The vendor **must** make said affirmation with its bid submission. Further, public improvement construction contract may not be awarded to a vendor who does not have a written plan for a drug-free workplace policy in compliance with Article 1D, Chapter 21 of the *West Virginia Code* and who has not submitted that plan to the appropriate contracting authority in timely fashion. For a vendor who is a subcontractor, compliance with Section 5, Article 1D, Chapter 21 of the *West Virginia Code* may take place before their work on the public improvement is begun.

ANTITRUST:

In submitting a bid to any agency for the state of West Virginia, the bidder offers and agrees that if the bid is accepted the bidder will convey, sell, assign or transfer to the state of West Virginia all rights, title and interest in and to all causes of action it may now or hereafter acquire under the antitrust laws of the United States and the state of West Virginia for price fixing and/or unreasonable restraints of trade relating to the particular commodities or services purchased or acquired by the state of West Virginia. Such assignment shall be made and become effective at the time the purchasing agency tenders the initial payment to the bidder.

I certify that this bid is made without prior understanding, agreement, or connection with any corporation, firm, limited liability company, partnership or person or entity submitting a bid for the same materials, supplies, equipment or services and is in all respects fair and without collusion or fraud. I further certify that I am authorized to sign the certification on behalf of the bidder or this bid.

LICENSING:

Vendors must be licensed and in good standing in accordance with any and all state and local laws and requirements by any state or local agency of West Virginia, including, but not limited to, the West Virginia Secretary of State's Office, the West Virginia Tax Department, West Virginia Insurance Commission, or any other state agencies or political subdivision. Furthermore, the vendor must provide all necessary releases to obtain information to enable the Director or spending unit to verify that the vendor is licensed and in good standing with the above entities.

CONFIDENTIALITY:

The vendor agrees that he or she will not disclose to anyone, directly or indirectly, any such personally identifiable information or other confidential information gained from the agency, unless the individual who is the subject of the information consents to the disclosure in writing or the disclosure is made pursuant to the agency's policies, procedures and rules. Vendor further agrees to comply with the Confidentiality Policies and Information Security Accountability Requirements, set forth in <http://www.state.wv.us/admin/purchase/privacy/noticeConfidentiality.pdf>.

Under penalty of law for false swearing (*West Virginia Code* §61-5-3), it is hereby certified that the vendor affirms and acknowledges the information in this affidavit and is in compliance with the requirements as stated.

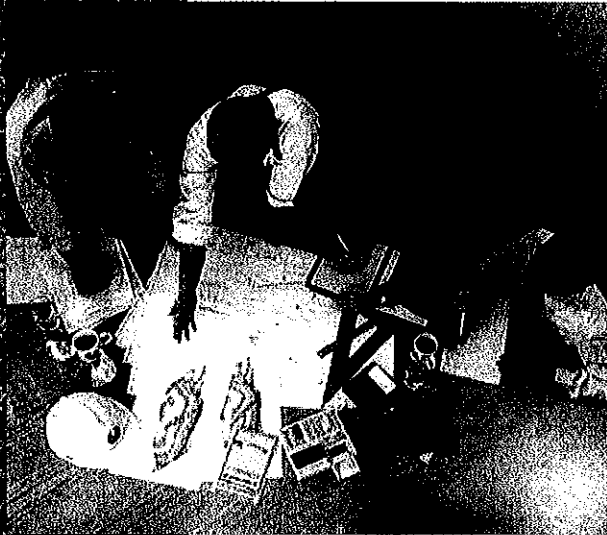
Vendor's Name: URS CORPORATION
Authorized Signature: John J. Ludke Date: 7/22/09

APPENDIX B

URS Homeland Security Services



Hazard Response and Long-Term Recovery Planning



URS has been providing comprehensive hazard response and long-term recovery planning for over 35 years.

RELATED SERVICES

- Program Management
- Construction Management
- Public Information Dissemination Plan aimed at managing the crisis and prevent further social impacts
- Debris Management
- Infrastructure Damage Assessments
- Hazard Mitigation Services
- Civil/Transportation Engineering
- Seismic/Structural Evaluations
- Geotechnical Evaluations (i.e., landslide considerations)
- Water Supply/Wastewater
- Information Systems Management

Short-Term Priorities

Goal Address unmet needs in ongoing response activities, empower people in the affected communities to better face the crisis, restore critical facilities and lifelines, and develop an effective framework for long-term recovery.

Assess Needs. Utilize sector approach to evaluate the impact to economic, environmental, political, social and infrastructure (road network, electric power grid, water and sewer, and telecommunications) sectors.

Address immediate unmet needs. Address any gaps in ongoing immediate response activities, particularly in areas of temporary housing and food

Establish public information system that provides people in the affected communities the information needed to improve organization, direct them to the agencies that may effectively help, maintain public health, prevent epidemics, abuses, violence and crime.

Restore critical facilities and lifelines. Debris management, and temporary or permanent restoration of critical road network, critical public facilities, utilities and telecommunications.

Develop framework for implementing reconstruction plan. Determine priorities, develop time-lines, capacity assessment, work flow paths, and construction management oversight to implement Reconstruction Plan.

Hazard mitigation. Assess opportunities to incorporate hazard mitigation objectives into the recovery process.

Develop project tracking system. Develop a project needs and tracking system to avoid duplication of efforts by multi-lateral lending institutions, NGO's, and disaster relief agencies and to target resources to priority projects.

MID-TERM SERVICES

- Boundary, Topographical, and Photogrammetric Surveys
- Geotechnical Investigations
- Grading, Cut and Fill Analysis
- Erosion and Sediment Control
- Site Design
- Public Information Dissemination Systems
- Architectural and Structural Engineering
- Hydrology and Hydraulics
- Construction Management
- Information Systems
- Transportation Planning
- Water Supply/Wastewater

LONG-TERM SERVICES

- Hazard Mitigation
- Multi-Hazard Risk Assessment
- GIS Applications
- Seismology and Earthquake Engineering
- Cost-Benefit Analysis
- Sustainable Redevelopment
- Construction Management

For more information

Pittsburgh, Pennsylvania
Peter J. Kroll, P.E.
Foster Plaza 4
501 Holiday Drive
Pittsburgh, PA 15220
Tel. 412.503.4596

or visit us at www.urscorp.com

URS

Mid-Term Priorities

Goal Rapid reconstruction of permanent housing, public facilities, and infrastructure that is cost-effective and incorporates disaster resistance to all hazards, empowering people to make risk-conscious decisions about their futures.

Site Civil, Architectural and Structural Engineering. Provide planned, cost-effective and schedule driven engineering design solutions

Incorporate construction safety guidelines to increase hazard resistance for new housing initiatives, public facilities, and urban developments.

Enhance the Public Information System to educate people on what are the agencies doing to address housing needs and procedures they should follow for seeking public assistance.

Construction. On-site monitoring of reconstruction projects is essential to determine if construction is progressing according to plan and specifications. The capabilities of public works agencies will need to be augmented with experienced professionals and technicians.

Program Management. Multiple, competing reconstruction projects exerts pressures on supplies of construction materials and available workforce. A data management system allows decision makers to effectively manage resources and prioritize the phasing of construction projects.

Long-Term Priorities

Goal Undertake a comprehensive approach to rebuilding that encompasses hazard mitigation as a key element to reducing the impacts of future disasters.

Undertake a Hazard Identification and Risk Assessment (HIRA) that identifies areas at highest risk to help guide the reconstruction effort. The risk assessment should be multi-hazard, evaluating all relevant hazards to the impact areas

Map results of the HIRA to more easily translate into land-use decisions and quantification of vulnerability. Use hazard maps to help select sites and design public facilities and utilities, as well as helping to prioritize buildings for seismic retrofit.

Prioritize mitigation actions. Solutions may include:

1. Incorporating improved structural methodology through building codes or equivalent standards.
2. Retrofitting priority building and facilities such as schools, hospitals, and critical utilities.
3. Determining land use and urban growth boundaries based on earthquake hazard maps.
4. Adopting policies to acquire additional seismic information before development or reconstruction takes place.

Implement mitigation actions and sustainability as part of the reconstruction effort.

