MONTECITO FIRE PROTECTION DISTRICT

AGENDA FOR THE STRATEGIC PLANNING COMMITTEE MEETING

Montecito Fire Protection District Headquarters

595 San Ysidro Road

Santa Barbara, California

June 18, 2013 at 3:00 p.m.

Agenda Items May Not Be Taken In The Order Shown

1. Public comment: Any person may address the Committee at this time on any non-agenda matter that is within the subject matter jurisdiction of the Montecito Fire Protection District; 30 minutes total time is allotted for this discussion.

2. Review submittals for Community Risk Assessment Request For Proposals.

3. Review submittals for Standards of Cover Request For Proposals.

4. Staff Report on revisions to response area map for future studies and response time reports.

5. Fire Chief's Report.

6. Suggestions from Directors for items, other than regular agenda items, to be included in the agenda for the July 23, 2013 Strategic Planning Committee Meeting.

7. Suggestions from Directors for items, other than regular agenda items, to be included in the agenda for the July Regular Board Meeting.

Adjournment

This agenda is posted pursuant to the provisions of the Government Code commencing at Section 54950. The date of the posting is June 12, 2013.

MONTECITO FIRE PROTECTION DISTRICT

6/12/13

Chip Hickman, Fire Chief

Note: In compliance with the Americans with Disabilities Act, if you need special assistance to participate in this meeting, please contact the District office at 969-7762. Notification at least 48 hours prior to the meeting will enable the District to make reasonable arrangements.

Materials related to an item on this agenda submitted to the Board of Directors after distribution of the agenda packet are available for public inspection in the Montecito Fire Protection District's office located at 595 San Ysidro Road during normal business hours.

Agenda
Item #2

Dewberry

ARCHITECTS ENGINEERS CONSULTANTS

Partnership…From Start to Finish

Comprehensive Community Risk Analysis Study

Statement of Qualifications

Montecito Fire Protection District

Date: May 31, 2013

SUBMITTED BY:

Dewberry Consultants LLC
1410 Rocky Ridge Road, Suite 305
Roseville, CA 95661

SUBMITTED TO:

Montecito Fire Protection District
Attn: Chief Chip Hickman
595 San Ysidro Rd.
Santa Barbara, CA 93108

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May 29, 2013

Montecito Fire Protection District
Attn: Chief Chip Hickman
595 San Ysidro Road
Santa Barbara, CA 93108

Subject: RFQ – Comprehensive Community Risk Analysis Study

Dear Chief Hickman:

The Montecito Fire Protection District looks beyond the risk of fire within the Montecito Community and seeks increased resiliency to all hazards. With a primary mission for protecting people and property, the District seeks a comprehensive community risk analysis building upon the natural hazards identified in the 2011 Santa Barbara County Multi-Jurisdictional Hazard Mitigation Plan and incorporating relevant technological and human-caused hazards such as hazardous materials spills and acts of terrorism. You need a team experienced in risk analysis studies who can perform an integrated and comprehensive planning process to identify the most pertinent risks and conduct a detailed vulnerability analysis of the Montecito Community.

Dewberry Consultants LLC ("Dewberry"), together with our partner, **Geo Elements, LLC**, is that team. We are available to begin working with the District immediately. Our committed project team is familiar with the risks in Santa Barbara County having worked with the County Office of Emergency Management, incorporated cities, and Santa Barbara Schools Districts since 2004 to complete the county-wide and schools districts hazard mitigation plans. We bring to the District:

1. Quality and commitment to completion. Through our hazard mitigation planning services, we have completed 70+ risk analysis studies including three state-level Threat and Hazard Identification and Risk Assessments (THIRAs).
2. Integration of climate change impacts. Dewberry offers an integrated evaluation of exacerbations to natural hazards due to projected climate change impacts.
3. Experience with non-natural hazards. Our staff have developed hazard profiles for non-natural hazards including arson, active shooter, nuclear accidents, agri-terrorism, cyber attack, and more.

Please do not hesitate to contact myself or Corinne Bartshire, Project Manager with any questions or for further information. Our complete contact information is presented below. We appreciate your consideration and look forward to working with the Montecito Fire Protection District.

Sincerely,

Jane Frantz
Senior Associate

Jane Frantz
Senior Associate
8401 Arlington Boulevard
Fairfax, VA 22031
703.849.0473
703.206.0803 fax
jfrantz@dewberry.com

Corinne Bartshire
Project Manager
1410 Rocky Ridge Drive #305
Roseville, CA 95661
916.380.3776
916.380.3750 fax
cbartshire@dewberry.com

Comprehensive Community Risk Analysis Study

Montecito Fire Protection District

1. BACKGROUND INFORMATION

Dewberry is a leading professional services firm with a proven history of providing architecture, engineering, and management and consulting services to a wide variety of public- and private-sector clients. Recognized for combining unsurpassed commitment to client service with deep subject matter expertise, Dewberry is dedicated to solving clients' most complex challenges and transforming their communities. Established in 1956, Dewberry is headquartered in Fairfax, Virginia, with more than 40 locations and 1,800+ professionals nationwide. Dewberry Consultants LLC, a Virginia Limited Liability Corporation was incorporated in 2000. It was authorized to do business in California in 2002.

Dewberry

40+ locations nationwide
1,800 professionals

Headquarters Office
8401 Arlington Blvd
Fairfax, VA 22031

Local Office
1410 Rocky Ridge Dr, #305
Roseville, CA 95661

Proposal Contacts

The Montecito Fire Protection District is invited to contact either of the individuals listed below with questions regarding this proposal or for further information.

Corinne Bartshire, Project Manager
1410 Rocky Ridge Drive, Suite 305
Roseville, CA 95661
916.380.3776
916.380.3750 fax
cbartshire@dewberry.com

Jane Frantz, Senior Associate
8401 Arlington Boulevard
Fairfax, VA 22031
703.849.0473
703.206.0803 fax
jfrantz@dewberry.com

Dewberry Services

Dewberry's Emergency Management, Disaster, and Mitigation Services group has facilitated more than 70 FEMA approved hazard mitigation plans including comprehensive risk analyses and hundreds of emergency management planning projects throughout the country, including California. In 2012, we completed 3 state-level Threat and Hazard Identification and Risk Assessments (THIRAs) compliant with the Department of Homeland Security Comprehensive Preparedness Guide (CPG) 201 process. Dewberry has a unique understanding of emergency management and the associated planning challenges having responded to over 350 disasters since 1992, including more than 100 staff who have been involved in response, recovery, and mitigation efforts in California over the past decade.

Disaster Response

Our team includes many of the country's most recognized and respected disaster experts and thought leaders. We specialize in disaster response areas such as:

- FEMA policy
- Personnel training and development
- Preplanning and preparedness activities
- Disaster response and assessments
- Community recovery operations
- Debris management operations
- Hazard mitigation services

Our disaster cadre—a team of more than 700 skilled professionals dedicated to disaster response and recovery work—responds to FEMA's

surge capacity needs. We provide the right people with the experience relevant to each task assignment, crafting our solution specifically to our clients' needs.

We have served as FEMA's primary contractor for more than 25 years. Our unique insight into how national disaster events are prepared for and managed is applied to local and state communities. We assist them in becoming more resilient through efficient and cost-effective mitigation measures that will reduce the impact of future disaster events.

Emergency Management

As dedicated listeners, we believe that responsiveness to our clients leads to optimal solutions for their toughest challenges. We examine clients' program development needs and devise emergency plans at the local, state, and federal levels. Our approach meets clients' goals with cost-effective and efficient strategies. Through close collaboration, our planning and facilitation experts guide communities toward a common goal, ensuring each product encompasses the clients' planning priorities.

Our expertise includes the development of general and non-traditional emergency management plans, including emergency operations, continuity of operations/government, shelter and evacuation, Family Assistance Center, companion animal evacuation and shelter, debris management, community recovery plans, and access and functional needs emergency plans.

- Security assessment and design
- Risk assessment and vulnerability analysis
- Planning, training, and exercises for:
- Emergency operations
- COOP/COG
- Debris management
- Evacuation
- Mass fatality
- Public health
- Special events
- Special populations (pets, access and functional needs)

Lawsuits and Litigation

Dewberry is currently involved in a limited number of claims. Dewberry is confident in its ability to successfully defend, or settle on favorable terms, all such outstanding claims. Furthermore, for the protection of Dewberry and its clients, Dewberry always maintains a comprehensive insurance program which includes professional liability, workers' compensation, comprehensive general liability, automobile and umbrella policies, with limits sufficient to cover the defense and payment of all outstanding claims against Dewberry. In the opinion of Dewberry's management, no claim or lawsuit currently pending against Dewberry will affect Dewberry's ability to perform this project.

Conflict of Interest

Dewberry does not have any conflict of interest associated with performing the proposed scope of services for the Montecito Fire Protection District.

Geo Elements, LLC

Geo Elements, LLC is a wildland fire and fuels consulting business that is registered as a limited liability company in the State of UT but files taxes as an 'S' corporation. It is registered as a "Foreign" or out-of-state business in CA. Geo Elements is a woman-owned small business that was founded in 2009.

There are and have been no pending litigation against Geo Elements and there are no potential conflict of interest concerns associated with performing the proposed scope of work.

2. GENERAL QUALIFICATIONS

Dewberry has a strong record of completing work to the satisfaction of our clients, in full accordance with budgets and schedules. As a large and long-established firm, this team has the resources and personnel depth to provide the necessary experienced professionals and resources to staff this project for its full duration, to assure responsive service, and to provide the expertise this contract requires. Both the firm and its sub-consultant have repeatedly been recognized and commended by clients, trade and professional organizations, and public agencies for superior quality of service. Accordingly, the majority of our annual work, more than 85 percent, is generated by repeat, longstanding clients.

Examples of Dewberry's work to help clients prevent, prepare for, mitigate, respond to, and recover from disasters are summarized in this section. We led the development of three state level CPG 201 compliant THIRAs, developing some of the first tools to implement the guidance released by the Department of Homeland Security in April 2012.

We have progressively improved our THIRA development process with each experience. For example, CPG 201 advises developing Desired Outcomes as part of Step 3. We found that convening a group of executive and political leaders to discuss Desired Outcomes, prior to Step 1, allows the jurisdiction to set the tone for the entire THIRA process. The stakeholders are encouraged to comment on and suggest revisions to the Desired Outcomes as appropriate, but they are better able to grasp the task of developing a THIRA when draft Desired Outcomes are presented up front.

To track and work through the 5 step process outlined in CPG 201 we developed an Excel workbook tool that has served successfully in workshops. Relevant information is linked across tabs to show in real time the summary of decisions being made by the stakeholders through collaborative discussion. This workbook was also designed for the jurisdictions to easily manage future updates to the THIRA as well as use the THIRA results for the State Preparedness Reports.

Dewberry looks beyond standard requirements and anticipates our clients' long-term challenges to create targeted, cost-effective solutions. A THIRA is based on a risk analysis. We will work with the District to prepare a comprehensive community risk analysis study that informs future planning efforts such as a complete THIRA, emergency management exercises, etc.

Project Descriptions

Following are descriptions of Dewberry's relevant projects presenting our capabilities for risk analysis.

County of Santa Barbara – 2011 Hazard Mitigation Plan Update

Dewberry facilitated the planning process and prepared the 2011 update to the county-wide multi-jurisdictional hazard mitigation plan for Santa Barbara County encompassing 8 jurisdictions. Dewberry performed a full update to the risk assessment and added evaluations of climate change exacerbations and the overall risk of infrastructure failure. The 2011 update was reformatted to include a main county plan and 8 city annexes. These enable each city to track and monitor mitigation progress within their

DEWBERRY'S CLIENT ACCOLADES

"Thank you for all of your assistance and support in getting this monumental project completed. I believe we have an excellent product to work with for our future planning efforts." – Jack Owen, Fire Chief, City of Guadalupe

"*Thanks so much for all your help, you went way beyond your call of duty*." - Mary Ellen Rio, Certified Municipal Clerk, City of Solvang, CA

"*Kudos all around from the City Council on the document!"* - Marc Bierdzinski, City of Buellton, CA

jurisdiction as well as coordination with county-wide efforts.

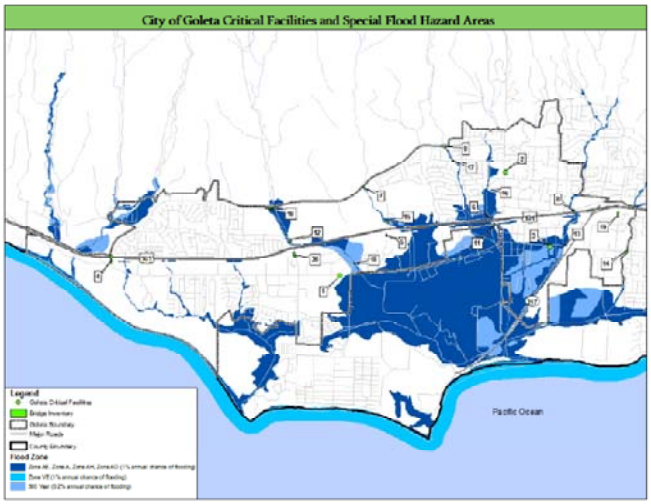


Figure 1. Dewberry develops custom maps showing critical facilities identified by the Hazard Mitigation Team in comparison to hazard areas to generate a unique and useful vulnerability assessment. (City of Goleta, County of Santa Barbara)

City of Goleta, CA – Wildfire Protection Plan

In 2012, Geo Elements, LLC was contracted to develop a wildfire protection plan for the City of Goleta. Tasks included:

- Collecting and reviewing existing policy and management approaches including the General/Coastal plan, management plans, codes and ordinances, and spatial data, and identified critical data gaps.
- Collecting missing data and performing a wildfire hazard and risk assessment. Providing hazard mitigation recommendation tiered to the existing City planning documents and State of California environmental policy.
- Consulting with contracted county fire department personnel and federal fire personnel related to past fire suppression and vegetation management practices.
- Establishing vegetation management units.
- Developing a CWPP Action Plan that included strategies for the mitigation of hazardous fuel conditions, a hazardous fuel treatment prioritization matrix, structure hardening recommendations, and fuel treatment standards and guidelines to direct future hazardous fuel mitigation projects.
- Conducting public outreach and facilitating public meetings. Assuring close coordination with the City's planning staff through a series of face-to-face meetings and conference calls.
- Providing technical expertise to the City's planning staff for use in response to objections raised by environmental groups regarding CWPP implementation.
- Coordinating CWPP direction, standards and guides with an environmental planning consultant who was concurrently drafting the City's Monarch Butterfly Habitat Management Plan. Coordinating and assuring compatibility of design features between the two planning efforts.

Santa Monica Mountains Community Wildfire Protection Plan

In 2012, Geo Elements, LLC was contracted to revise the Community Wildfire Protection Plan for the Santa Monica Mountains National Recreation Area. Tasks included:

- Updating and simplifying an existing 576 page draft CWPP to a more focused 118 page CWPP for the National Park Service.
- In concert with the National Park Service Fire Analyst, we created a sophisticated hazard assessment specifically for the planning area utilizing fire behavior modeling.
- Analyzing historical weather for input into the fire behavior models.
- Assisting the Park Service Staff in developing a wildfire risk assessment.
- Identifying and prioritizing fuel treatment projects based on results of the hazard and risk assessment.

- Preparing the final CWPP including the addition of a viable action plan.
- Balancing community protection planning with the long-term sustainability of natural resources.
- Identifying existing and ongoing wildfire prevention and education programs.
- Evaluating projects developed during public meetings and identifying those projects that could be implemented within the scope of a CWPP.

Sevier County, Utah – Four Community Wildfire Protection Plans

In 2012 Geo Elements, LLC authored four community wildfire protection plans within Sevier County which included evacuation and preattack guides. Tasks included:

- Utilizing a required State of Utah CWPP template in the development of 4 CWPPs.
- Assisting community members, councils, and local officials in identifying issues and priorities related to wildfire protection.
- Outreach to state and federal agencies, community leaders, county commissioners, and the public to attend public meetings and collect concerns and issues.
- Organizing, scheduling, and facilitating public meetings for development of these plans.
- Collecting and reviewing data including existing plans, codes and ordinances, and digital data.
- Developing hazard and risk assessments for the planning areas, identified values, and CWPP goals and objectives.
- Providing fire spatial analysis and creating map products using ArcGIS 10.1.
- Developing an action plan that included prevention and education recommendations, identifying and prioritizing hazardous fuel mitigation projects, providing fuel treatment strategies
- Developing wildfire preattack plans for each planning area
- Developing evacuation guides for each planning area.

County of Santa Clara, CA – 2011 Hazard Mitigation Plan Update

Dewberry facilitated the planning process and prepared a county-wide multi-jurisdictional hazard mitigation plan for Santa Clara County encompassing 13 jurisdictions. This county-wide plan builds upon the risk assessment and planning efforts conducted by the Association of Bay Area Governments (ABAG). The multi-jurisdictional multi-hazard mitigation plan includes risk assessments, vulnerability analyses, capability assessments, and mitigation strategies specific to each participating jurisdiction. Unique features of this contract include, individual meetings with each jurisdiction to discuss the planning process, individual meetings with the five largest employers in the county to discuss collaboration in hazard mitigation planning, and a countywide dam hazards assessment to identify relative risk across all of the dams in the county. Dewberry's commitment and professionalism led to additional contracts with the Santa Clara County Office of Emergency Services to conduct a county-wide mass care & sheltering tabletop exercise and a subsequent full scale exercise testing four of the County's catastrophic earthquake plans.

State of South Dakota – Threat and Hazard Identification and Risk Assessment

Dewberry was contracted to develop a vulnerability assessment to non-natural hazards following the completion of two State Hazard Mitigation Plan (SHMP) Updates (2008 and 2011). We are currently developing the 2014 State of South Dakota Hazard Mitigation Plan. Leading both the development of the THIRA (focusing on non-natural hazards) and the SHMP (focusing on natural hazards) allows us to develop well integrated plans resulting in an all-hazards risk

assessment and capabilities assessment for the State.

Development of the THIRA began in October 2011 with a collaborative process among the State's Homeland Security Advisory Committee (SAC) to identify and prioritize human-caused threats/hazards for evaluation. Dewberry developed hazard profiles which present the following characteristics of each hazard: application mode, duration, dynamic/static characteristics, mitigating conditions, and exacerbating conditions. Using various FEMA guidance references, Dewberry assisted the SAC through customized validation and ranking exercises for both the threats/hazards and critical assets. The completed vulnerability assessment summarizes which assets are most vulnerable to each of the threats/hazards as well as which threats/hazards are most likely to impact the State.

The results of the non-natural threats/hazards risk assessment coupled with the natural hazards risk assessment from the State Hazard Mitigation Plan served as the basis for following the CPG 201 process. The significant natural and priority human-caused hazards were evaluated against the 31 Core Capabilities as identified in the National Preparedness Goal (September 2011) to develop specific Capability Targets for the State of South Dakota. These Capability Targets outline the desired level of capability for the State across all phases of emergency management: prevention, protection, mitigation, response, and recovery. Dewberry guided the state through the process of identifying Desired Outcomes, evaluating the 31 core capabilities, developing capability targets, and preparing action items to support the State Preparedness Report.

State of West Virginia – Threat and Hazards Identification and Risk Assessment

Development of the THIRA was one part of a two part contract including an update to the State Hazard Mitigation Plan. For West Virginia, Dewberry refined our Excel workbook tool so the State's key stakeholders could finalize all of the THIRA results and information to be input to the online State Preparedness Report format, in a comfortable Excel environment. This alleviated frustrations of losing information in the online State Preparedness Report format, because the data was readily available in the Excel tool.

State of Pennsylvania – Threat and Hazards Identification and Risk Assessment

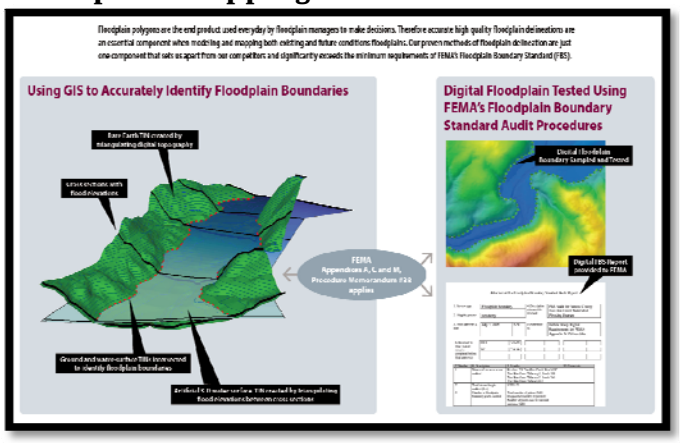
On November 6, 2012 Dewberry was awarded the contract to develop the Commonwealth of Pennsylvania's FY 2012 Threat and Hazard Identification and Risk Assessment and the Commonwealth's FY 2012 State Preparedness Report. We facilitated workgroups, meetings and delivered a full THIRA and SPR to PEMA in less than 6 weeks. Dewberry successfully accomplished the project while managing an extremely aggressive schedule and fixed deadlines for submission.

Using the CPG 201 methodology, twelve significant natural and priority human-caused hazards were evaluated against the 31 Core Capabilities to develop specific Capability Targets for the Commonwealth of Pennsylvania. These Capability Targets outline the desired level of capability for the Commonwealth across all phases of emergency management.

Using the Capability Targets, Dewberry facilitated a State Preparedness Report (SPR) Workshop with the THIRA/SPR Stakeholders in order to develop the Commonwealth's 2012 SPR. Within the SPR, the Stakeholders evaluated the Commonwealth's current capabilities and identified gaps and recent advances done within the Commonwealth to address gaps. Within the THIRA, recommendations were made on how the Commonwealth can further address these gaps.

Dewberry was subsequently retained to complete the Pennsylvania State Homeland Security Strategy.

Placer County Flood Control District, CA – Floodplain Mapping



Dewberry, as part of a team led by RBF Consulting, was selected by the Placer County Flood Control District (District) to provide water resource engineering and floodplain mapping services for the County under FEMA's Cooperating Technical Partner (CTP) program. This project consists of a number of tasks required to the development of detailed flood studies under FEMA's guidelines and specifications. These tasks include: project outreach, field survey, supplemental topographic mapping, base map development, HEC-RAS modeling, floodplain mapping, independent QA/QC, preparation of a TSDN, FEMA Coordination, and project management.

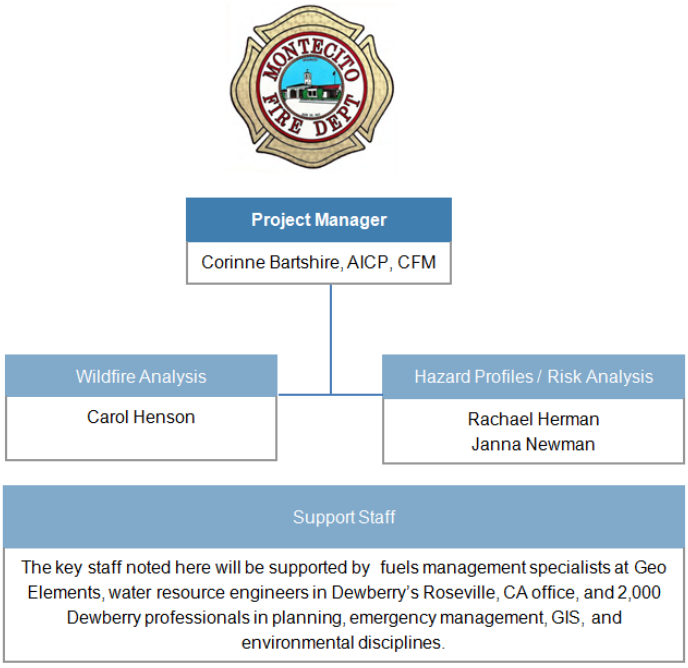
Following verification of the accuracy of the LiDAR data, Dewberry will update the available topographic maps and/ or DEMs for the new study areas using the data collected through the field surveys conducted under Task 2. Dewberry will then compile and develop a base map in digital GIS format to meet both Placer County and FEMA Guidelines and Standards criteria. The District has requested that the base map include such information (layers) as: TIN surface, contour mapping, jurisdictional boundaries, aerial photographs, watercourse alignments, as well as roadways and street alignments. The base map data will be delivered in GIS layers that match the data scheme required for Guidelines Appendix L, and will initially be built from the existing DFIRM database.

Dewberry will create HEC-RAS models for Squaw and Bear Creeks. Dewberry will analyze the 25-, 50-, 100-, 200- and 500-year flood events. Dewberry will develop work maps based on the H&H modeling to show the revised limits of the floodway, and 100-year and 500-year floodplains.

FEMA Region IX – Map Modernization

As part of a joint venture, Dewberry provided comprehensive flood hazard engineering and GIS mapping support to FEMA Region IX under its Map Modernization program. This effort was completed through an indefinite delivery/indefinite quantity (IDIQ) contract valued at $50 million over 5 years. The contract covered flood study and mapping activities for the FEMA Region IX mainland states (California, Nevada, and Arizona). Dewberry provided full services for Map Modernization including: project scoping; terrain data development; engineering H&H studies (riverine, coastal, and alluvial fan); DFIRM production; FIRM processing (preliminary, post-preliminary, and GPO); CTP support; and post-disaster mapping. In addition to the services listed above, Dewberry provided QA/QC and technical support, and conducted training for 4 other Region IX IDIQ contractors and 2 CTPs.

3. SPECIFIC QUALIFICATIONS



The development of the Montecito Community Comprehensive Risk Analysis Study will be led by **Corinne Bartshire**, a project manager and emergency management consultant, local to the San Francisco Bay Area. Corinne led the development of the 2011 Santa Barbara County Multi-Jurisdictional Hazard Mitigation Plan and two statewide CPG201 compliant THIRAs for South Dakota and West Virginia. Corinne also supported the development of the Pennsylvania THIRA. She is supported by **Rachael Herman** based in Dewberry's headquarters office in Fairfax, VA. Rachael leads Dewberry's risk analysis efforts within the Emergency Management, Disaster, and Mitigation Services group. Rachael supported both the West Virginia and Pennsylvania THIRAs and has developed numerous natural and non-natural hazard profiles.

Dewberry has continued to improve upon the methodologies and guidance set forth by CPG 201 and FEMA's mitigation planning guidance. We will bring improvements and lessons learned from our California-specific and nationwide experiences with risk analyses and vulnerability assessments to the Montecito Fire Protection District. For example, we understand the importance of not only identifying the vulnerabilities to critical assets within the community, but applying those vulnerabilities to evaluate the capabilities to prevent, protect, mitigate, respond, and recover from potential threats and hazards.

Corinne and Rachael are supported by over 2,000 technical and support professionals in the planning, emergency management, environmental, and engineering disciplines. The water resources engineers in Dewberry's Roseville, CA office performed the floodplain mapping and on-call engineering projects described in the previous section. They are not anticipated to be lead staff for the Montecito Community Risk Analysis Study but are available to support the efforts as needed. Dewberry pledges to provide the Montecito Fire Protection District with a very well-informed and experienced team for identifying and evaluating all threats and hazards most pertinent to the community.

Dewberry's emergency management professionals are not just plan writers. We are first responders, emergency managers, hazard mitigation officers, community planners, floodplain managers, and more. We use real world experience to inform the plans we write. We believe each client deserves a solution as unique as they are and nothing is one size fits all. We also believe stakeholder engagement in the planning process and an all-inclusive approach to planning results in stronger stakeholder relationships, developing a more integrated partnership with local partners. Lessons learned and knowledge gleaned from our extensive experience coordinating and facilitating planning efforts across multiagency and multijurisdictional initiatives at all levels of government will be applied in our approach to this project.

Dewberry has enlisted Geo Elements, LLC to perform analysis specific to wildfire risks. Geo Elements staff is comprised of wildland fire and fuels professionals who have extensive on-the-ground experience in all aspects of wildland fire

and fuels management throughout the western United States, and most especially along the Central Coast. **Carol Henson**, of Geo Elements, will lead the wildfire risk analysis portion of the community risk analysis study, working in close coordination with Corinne Bartshire and Rachael Herman.

EXPERIENCE HIGHLIGHTS:

Project Manager for Santa Barbara County hazard mitigation plan.

Project Manager / Lead Planner for South Dakota and West Virginia CPG 201 compliant THIRAs

EDUCATION:

MCRP, City and Regional Planning, Cal Poly San Luis Obispo

BS, Environmental Sciences, UC Davis

REGISTRATIONS:

American Institute of Certified Planners

Certified Floodplan Manager

YEARS OF EXPERIENCE:

Dewberry: 7

Prior: 5

AFFILIATIONS:

California Emergency Services Association (Vice President for Coastal Chapter, Member of State Board of Directors)

Association of State Floodplain Managers

American Planning Association

CONFERENCE PRESENTATIONS:

- "Adapting to Climate Change through Hazard Mitigation Planning", September 2009, Inter-Agency Forum on Climate Change Impacts & Adaptations
- "Integrating Hazard Mitigation into Local Planning", April 2010, American Planning Association Conference
- "Strategies to Integrate Core Hazard Mitigation Planning into RiskMAP Scoping Processes: Highlights of Risk MAP data opportunities in state, regional and local HIRA updates", May 2010, Association of State Floodplain Managers Conference
- "Climate Adaptation: Missed Opportunities of Climate Action Planning", November 2010, California Chapter of American Planning Association Conference

Corinne Bartshire AICP, CFP

Project Manager

Corinne is a project consultant, local to the San Francisco Bay Area, in Dewberry's Emergency Management, Disaster and Mitigation Services group. As a professional planner and certified floodplain manager, she brings 12 years of professional experience and valued expertise to numerous communities through Dewberry's emergency management consulting services. Corinne's experience includes the development of digital flood insurance rate maps, hazard mitigation plans, and emergency management exercises. She supports the Hazard Mitigation Technical Assistance Program as needed for mitigation grant application review, benefit cost analysis training, and post-disaster tasks. Corinne delivers high quality products on time and within budget while engaging the right stakeholders and the public in all of her projects. She has a proven record of ensuring customers accomplish their goals. It is Corinne's mission to build partnerships and increase resiliency throughout the communities she is engaged in.

SELECTED EXPERIENCE

CPG 201 Compliant Threat and Hazard Identification Risk Assessments (THIRA) Project Manager / Lead Planner responsible for the development of THIRAs compliant with the Department of Homeland Security Comprehensive Preparedness Guide (CPG) 201. Tasks included developing custom tools to facilitate the required analysis / planning process. Worked with State leadership to determine desired outcomes. Facilitated stakeholder collaboration to identify and prioritize human-caused threats/hazards and evaluate the necessary capabilities to address them. Determined Capability Targets and provided guidance for completing the State Preparedness Report online tool. Developed processes for integrating the THIRA with the State Hazard Mitigation Plan. Project experience includes:

- State of South Dakota THIRA
- State of West Virginia THIRA
- Commonwealth of Pennsylvania THIRA (Support Planner)
- State of Rhode Island THIRA (Advisor)

Local Hazard Mitigation Planning, Project Manager / Lead Planner on numerous FEMA and State approved local hazard mitigation plans compliant with the Disaster Mitigation Act of 2000. Responsible for plan writing, risk analysis, mitigation strategy development, and

- "Hazards and Disasters: The Planner's Role", April 2011, Inland Empire Section Event, California Chapter of American Planning Association
- "The Planner's Role in Preparing for Disasters", October 2012, California Chapter of American Planning Association
- "Assessing the Local Impacts of Climate Change", February 2013, California Climate Action Planning Conference

Corinne Bartshire

AICP, CFM

Project Manager

outreach support. Ensures local hazard mitigation plans are developed with coordination among all appropriate agencies. Project experience includes:

- San Luis Obispo County, CA
- Los Altos Hills, CA
- Santa Clara County Multi-Jurisdictional Multi-Hazard Mitigation Plan, CA
- Santa Barbara County Multi-Jurisdictional Multi-Hazard Mitigation Plan, CA
- City of Capitola, CA
- City of Huntington Beach, CA
- City of Needles, CA
- Santa Barbara School Districts Natural Hazards Mitigation Plan, CA
- Costilla County Multi-Hazard Mitigation Plan, CO
- Park County Multi-Hazard Mitigation Plan, CO
- Allen Parish, Multi-Hazard Mitigation Plan Update, LA
- Iberia Parish Multi-Hazard Mitigation Plan Update, LA
- City of Thibodaux Multi-Hazard Mitigation Plan Update, LA
- Colleges of the Fenway Multi-Hazard Mitigation Plan, MA
- DeKalb County Multi-Jurisdictional Multi-Hazard Mitigation Plan, GA

State Hazard Mitigation Planning

State of California 2010 Hazard Mitigation Plan Implementation. Led the Cross Sector Communication and Knowledge Work Group for two years as part of a four team implementation of the state hazard mitigation plan. Responsible for outreach efforts and increasing awareness among state agencies, local government, and the public regarding the benefits of hazard mitigation.

State of California 2010 Hazard Mitigation Plan Update. Outreach Coordinator responsible for conducting stakeholder outreach. Participated in State Hazard Mitigation Team meetings and developed web surveys for collecting feedback from identified stakeholders (local governments, regional planning agencies, private sector, non-profit agencies, etc).

State of South Dakota Hazard Mitigation Plan Updates. Project Manager / Lead Planner responsible for coordinating the State's plan updates for 2008, 2011, and 2014. Guided the State Hazard Mitigation Team in reviewing and determining the revised mitigation strategy. Oversaw completion of updated risk analysis, capabilities assessment, local plan reviews, implementation strategy, and draft compilation. Achieved FEMA approval with no revisions for two consecutive updates.

EXPERIENCE HIGHLIGHTS:
Community Wildfire Protection Plans, fire behavior assessments and modeling, fire management planning

EDUCATION:

- Colorado State University, Technical Fire Management Certificate
- College of the Canyons, General Education, 9 units
- Glendale Community College, Aviation
- Pasadena City College, Forestry & Fire

AFFILIATIONS:
International Association of Wildland Fire

CERTIFICATIONS AND TRAINING:
CA Fire Safe Planner

S-590 Fire Behavior Analyst

Fire History Workshop

Farsite Workshop

RX-330 Burn Boss

RX-310 Fire Effects

WFDSS – Region 5

Incident Qualifications and Certification System red card positions:

Incident Commander Type 3

Fire Behavior Analyst

Division/Group Supervisor

Burn Boss II

Strike Team Leader Crews and Engines

Field Observer

Situation Unit Leader

Crewboss

YEARS OF EXPERIENCE:
Geo Elements: 3

Prior: 27

Carol Henson

Wildfire Analysis

With over thirty years of experience in all phases of wildland fire and fuels management, Carol has served in various capacities on engines and hotshot crews promoting to Battalion Chief and Forest Fuels Officer prior to her final position as a Fire Management Specialist at the Washington Office for the Forest Service. She has gained a strong wildland fire background with having served on hundreds of wildland fires in various capacities throughout the United States.

SELECTED EXPERIENCE

Geo Elements, LLC, November 2009 - present

Founder and owner of Geo Elements LLC, a wildland fire and fuel consulting business. Responsible for all aspects of operating the business including customer service, marketing, sales, purchasing, accounting, contracting, and hiring and supervising subcontractors.

Other duties include:

- Principle author on wildfire related plans and reports such as community wildfire protection plans, fire management plans, etc.
- Serve as fire management specialist, fire behavior analyst, hazard mitigation specialist, and firesafe planner
- Utilize fire behavior models to produce wildfire hazard and risk assessments and fire behavior analyses

Authored community wildfire protection plans for the City of Goleta, Santa Monica Mountain Communities, Sevier County UT four (4) plans. Also, authored a hazard and risk assessment for Silver Reef Highlands Subdivision in Leeds, UT.

U.S. Forest Service, WO, Adaptive Management Services Enterprise Team, December 2004 to Oct 2009

Served as project manager for a variety of wildland fire and fuels projects including fire behavior assessments, fire behavior modeling, fire behavior research, fire management plans, fuels technical input for environmental analyses, validating requirements for structure protection, multiple National Fire Plan success stories, and coordinated with multiple federal, state, and local agencies on many of these projects.

Authored a wildland fire management plan for Nellis Air Force Base and Nevada Test and Training Range, which included a risk and hazard assessment, development of mitigation strategies, and weather and climate analysis as they relates to fire behavior modeling.

Carol Henson

Wildfire Analysis

U.S. Forest Service, Los Padres National Forest, July 1997 to December 2004

Served as the Santa Barbara Ranger District and the Los Padres National Forest Fuels Officer for 7 years. Responsible for overall program management including the budget, program planning, and supervising a team of four. Duties included developing a forest-wide fuel treatment strategy that included planning and implementing numerous fuel treatment projects across the 1.7 million acre forest. Wrote multiple burn plans of various complexities, managed a complex prescribed fire burn program, provided formal and informal fire and safety training, provided public education on fire and hazardous fuel, provided technical input for NEPA, and provided technical input for forest land management plans. Also, contracted and coordinated with local, state, and federal agencies and served on numerous Forest Service and public committees involved with various fuels and fire-related issues. Represented the Forest on the Santa Barbara County Fire Safe Council.

U.S. Forest Service, Lassen National Forest, July 1994 to July 1997

Served as Assistant District Fire Management Officer/Suppression Battalion Chief. Supervised and provided oversight for 16 employees including engines, prevention technicians, and a lookout. My duties included acting as a duty officer, district fire training coordinator, maintained several fire databases for the district, and coordinated and scheduled projects assigned to district suppression personnel.

U.S. Forest Service, Sierra National Forest, October 1991 to July 1994

Served as Assistant District Fire Management Officer/Suppression Battalion Chief. Supervised and provided oversight for 14 employees including engines and a prevention technician. Served as duty officer, district fire training coordinator, prepared district preparedness plans and fire reports, and coordinated and scheduled projects assigned to district suppression personnel.

U.S. Forest Service, Angeles National Forest, December 1977 to July 1991

Served in a variety of field-level fire management positions including engine crewmember, hotshot crewmember, squad boss, assistant fire engine operator, engine operator, engine captain, and hotshot captain in fire suppression duties. Supervised engine and hotshot crews in all aspects of wildfire suppression, prescribed burning, and forest project work.

EXPERIENCE HIGHLIGHTS:

Developed non-natural hazard profiles for South Dakota THIRA

Supports numerous California mitigation planning projects through risk analysis and GIS mapping

EDUCATION:

BA, Geography and Policy Studies, Syracuse University

Certificate in Community Environmental Studies, Tufts University

YEARS OF EXPERIENCE:

Dewberry: 6

Prior: 2

Janna Newman

Risk Analysis

Ms. Newman is a Dewberry Geospatial Analyst with a BA in Geography and Policy Studies, over six years experience with ArcGIS, and experience with HAZUS. She has worked on hazard mitigation projects for the states of Mississippi, South Dakota, and Maryland as well as local hazard mitigation plans from California to Virginia. For the Mississippi Enhanced Hazard Mitigation Plan, she obtained and managed data to create maps and also updated and edited the Tornado Risk Assessment section of this plan. Ms. Newman often manages data from in-house Emergency Management departments or as support to a mitigation planning process. She created hazard identification maps for the University of Mary Washington, Virginia Commonwealth University, and University of Virginia's Hazard Identification and Risk Assessment studies. She helped create a report for the North Carolina Emergency Management senior staff identifying GIS datasets and software needed pre-disaster and post-disaster, and compiled a list of over 300 datasets. She also has experience in training others in GIS.

SELECTED EXPERIENCE

South Dakota THIRA. The analyst responsible for researching manmade hazards and developing hazard specific profiles to present descriptions, potential impacts, mitigating characteristics, exacerbating characteristics.

California – Local Hazard Mitigation Plans Ms. Newman has supported all aspects of hazard mitigation planning for several local hazard mitigation plans in California. She serves as a GIS Coordinator and Risk Analyst, performing spatial analysis of hazard areas, population, and recent event data using ESRI's GIS software and drafts hazard specific profiles which detail potential impacts and likelihood of occurrence. Ms. Newman is a skilled writer and provides quality support for documenting capabilities assessments, mitigation strategies, planning process, and plan maintenance sections of the plan. She has been involved in the following plans:

- Town of Los Altos Hills, CA
- City of Capitola, CA
- City of Huntington Beach, CA
- Santa Clara County, CA Multi-Jurisdictional Multi-Hazard Mitigation Plan

Janna Newman

Risk Analysis

- Santa Barbara County, CA Multi-Jurisdictional Multi-Hazard Mitigation Plan

South Dakota State Hazard Mitigation Plan. The analyst responsible for leading plan organization and compilation. Tasks include integrating the State's THIRA, organizing and summarizing new data from the state and local agencies to be incorporated into the Planning Process section of the updated Plan; reviewing and summarizing local hazard mitigation plans for incorporation into the updated State Plan; reviewing the previous plan FEMA crosswalk and ensuring comments are addressed in the new Plan.

FEMA California Post Fire. Following the California fires that began in October of 2007, Dewberry was given the task to create an interactive website for FEMA that would show fire locations, evacuation routes, and critical facilities. Ms. Newman helped clean and manage the data from FEMA to create updated Post Fire Hazard maps. The maps were then posted on a new interactive mapping website developed by Dewberry.

FEMA Deployment to Birmingham, ALabama. GIS Analyst deployed to provide assistance to the FEMA Environmental and Historic Preservation Group. Digitized locations of National and State historic landmarks in the State of Alabama to be used by State EMA and State Historic Preservation Office. The GIS layer created was also posted to the FEMA Region IV web mapping server called STORM, which could be accessed by all employees at the Birmingham Joint Field Office.

Maryland State Hazard Mitigation Plan. GIS Analyst responsible for updating HIRA, creating a comprehensive critical facility and state owned facility dataset, running exposure analyses, and map production.

EXPERIENCE HIGHLIGHTS:

Led numerous hazard identification and risk assessment efforts involving natural, technological, and human-caused hazards

EDUCATION:

MS, Education

BS, Interdisciplinary Studies in Environmental Science

REGISTRATIONS:

Certified Floodplain Manager

National Restaurant Association Educational Foundation, ServSafe Food Safety Certification

National Restaurant Association Educational Foundation, ManageFirst Nutrition Certification

YEARS OF EXPERIENCE:

Dewberry: 4

Prior: 6

AFFILIATIONS:

New York State Floodplain and Stormwater Managers Association

New York State GIS Association

Association of State Floodplain Managers

Rachael Herman CFM

Risk Analysis

Ms. Herman has a broad range of experience and expertise in geospatial information technology as it applies to natural hazards and mitigation planning. Ms. Herman has contributed to numerous local, state, and regional hazard mitigation plans and she has developed approved Hazard Identification and Risk Assessment (HIRA) sections for the states of Rhode Island, Connecticut, West Virginia, Maryland, and Virginia as well as dozens of local hazard mitigation plans. In addition, she has modernized FEMA Flood Insurance Rate Maps and Flood Insurance Studies for several communities in Virginia.

SELECTED EXPERIENCE

Threat and Hazard Identification and Risk Assessment (THIRA). Assisted with scenario development for the Pennsylvania and West Virginia. This allows the state to understand threats and hazard impacts and create informed capability assessments.

Disaster Mitigation Act of 2000 Compliant Mitigation Plans. Responsible for plan writing and outreach support, including hazard identification and risk assessment, mitigation strategy and alternatives development, capabilities assessment, and coordination of the plan with local and state mitigation committee and community officials. Researched and applied HAZUS-MH to vulnerability analysis for state and local plans.

State Mitigation Plans:

- Connecticut (2013 update underway)
- Rhode Island (2014 update underway)
- West Virginia (2011 and 2013 update underway)
- Maryland (2011 update)
- Virginia: Standard and Enhanced (2004 and 2010)

Local /Regional Mitigation Plans:

- Adams County, Colorado (in progress), HIRA integrated with Comprehensive and Transportation Plans
- Lake County, Colorado (in progress), Entire Plan
- City of Lawton, Oklahoma (2012) HIRA
- Crater PDC, Virginia (2006 and 2011) HIRA
- Northern Virginia Regional, Virginia (2011 plan update) HIRA

Rachael Herman

CFM

Risk Analysis

- Richmond Regional PDC, Virginia (2011 plan update)
- Tri-County Regional Planning Commission, Illinois (2010) Entire Plan
- West Piedmont PDC, Virginia (2006 and 2011 plan update) HIRA
- Peninsula , Virginia (2010) HIRA
- Middle Peninsula PDC, Virginia (2009) HAZUS-MH
- Northern Shenandoah Valley RC, Virginia (2007) HIRA
- Northern Neck PDC, Virginia (2006) HIRA
- Central Shenandoah PDC, Virginia (2005) HIRA
- Region 2000 PDC, Virginia (2004) Entire Plan

Disaster Resistant University Plans:

- College of William and Mary (2012 plan development underway)
- University of Mary Washington, Virginia (2013 update underway) HIRA
- Radford University, Virginia (2006) HIRA
- Virginia Tech, Virginia (2006) HIRA
- Virginia State University, Virginia (2006) HIRA

North Carolina Sea Level Rise Risk Management Study. Completed the social vulnerability component to understand how climate change affects the study area and how to reduce future impacts. Analysis included US Census data demographic profiles, poverty and unemployment estimated. Assisted with development of recommended flood risk management strategies for future flood conditions.

FEMA Standard Operations Program Management Support. Developed the new Standard and Enhanced State Tool and Guide that will replace the "Crosswalk" and "Blue Book" guidance for updating State Mitigation Plans.

FEMA Map Modernization. Flood Insurance Rate Maps (FIRMs) and Flood Insurance Studies (FIS) updated for communities in Virginia; including Counties of Montgomery, Giles, and Dinwiddie and the City of Radford.

4. STUDY REFERENCES

Santa Barbara County Multi-Jurisdictional Hazard Mitigation Plan - Dewberry

Description	Update to Countywide hazard mitigation plan including development of 8 city specific annexes pursuant to Disaster Mitigation Act of 2000.
Project Budget	$88,225
Project Start & Completion Dates	June 2010 – October 2011 (planned and actual)
Customer Name	County of Santa Barbara
Contact Individual	Richard Abrams, Office of Emergency Management rabrams@countyofsb.org
Contact Telephone	805.681.5526

South Dakota THIRA - Dewberry

Description	Development of vulnerability assessment to non-natural hazards and CPG 201 compliant THIRA
Project Budget	$65,758
Project Start & Completion Dates	October 2011 – July 2012 (planned and actual)
Customer Name	South Dakota Office of Homeland Security
Contact Individual	James Carpenter, Director james.carpenter@state.sd.us
Contact Telephone	605.773.4088

Santa Clara County Hazard Mitigation Plan - Dewberry

Description	Update to Countywide hazard mitigation plan including 13 incorporated jurisdictions and 5 private sector businesses pursuant to DMA 2000.
Project Budget	$187,500
Project Start & Completion Dates	January 2010 – June 2012 (planned and actual)
Contact Individual	Ken Foot, Office of Emergency Services ken.foot@oes.sccgov.org
Contact Telephone	408.808.7803

City of Goleta Community Wildfire Protection Plan – Geo Elements

Description	Developed CWPP for City of Goleta
Project Budget	$91,445
Project Start & Completion Dates	October 19, 2010 – May 1, 2012 (planned and actual)
Contact Individual	Anne Wells, Adv Planning Manager
Contact Telephone	805.961.7557

Santa Monica Mountain Communities Wildfire Protection Plan – Geo Elements

Description	Updated CWPP for with focus on National Park Service area.
Project Budget	$27,212
Project Start & Completion Dates	November 1, 2011 – April 7, 2012 (planned and actual)
Contact Individual	Kathryn Kirkpatrick, Fire Management Officer
Contact Telephone	805.658.5719

5. FEE SCHEDULE

Dewberry's billing rates are presented in the following table.

Classification	Hourly Rate
Project Manager	$125
Risk Analyst I	$70
Risk Analyst II	$90

6. UNDERUTILIZED DISADVANTAGED BUSINESS ENTERPRISES

Dewberry made a good-faith effort to research and identify Disadvantaged Business Enterprises (DBEs) within Santa Barbara County that have ample qualifications to support the Montecito Community Risk Analysis Study. We talked with several other small business consulting firms that we are aware of that offer hazard mitigation planning services. We also asked the Montecito Fire Protection District if a list of local DBEs was available. We were unable to identify a teaming partner with the DBE designation with the skills and qualifications that we required. However, Geo Elements, LLC is a woman-owned small business.

Once the budget and scope of work for this project is determined, we will identify the percentage of work to be allocated to Geo Elements, LLC. At a minimum, Geo Elements will lead all aspects related to wildfire risk analysis and vulnerability assessment.

A part of Diamante Partners, LLC
101 Parkshore Drive, Suite 100
Folsom, CA 95630
916-932-2124 Phone
916-265-0329 Fax
www.diamantepartners.com

Response to Request for Qualifications to *Provide a Comprehensive Risk Analysis to*

Montecito Fire Protection District

May 31, 2012

May 31, 2012

Mr. Chip Hickman
Fire Chief
Montecito Fire Protection District
595 San Ysidro Road
Santa Barbara, CA 93108

Dear Chief Hickman:

Diamante Public Sector Group, a part of Diamante Partners, LLC (Diamante) is pleased to submit for your review, our Statement of Qualifications for professional consulting services to the Montecito Fire Protection District (MFPD) for the development of a comprehensive Community Risk Analysis.

The Diamante Team is comprised of very experienced and talented former Fire and Emergency Services leaders and tacticians with extensive on-the-ground and policy background in fire service/EMS management and organized labor. Individually and collectively, our team represents many years of applicable experience garnered from extensive work in the public safety & government management, homeland security, fire and rescue and EMS fields that have included spearheading several fire department consolidations and a comprehensive understanding of the needs of local and state government. Additionally, Diamante has unrivaled experience working with California Independent Special Districts such as Novato Fire Protection District, Sacramento Metropolitan Fire Protection District and the Fire Districts Association of California.

All of the members of the Diamante Team have successfully lead complex organizations at every level of government, facilitated work-groups and strategic planning sessions, developed risk assessments, advised government leaders, developed reports and delivered briefings or testimony in front of government bodies. The experience and knowledge that Diamante Partners brings to the MFPD will serve to ensure for positive collaboration and facilitation through a streamlined and enhanced work-effort of reviewing existing local fire and EMS departments, working with stakeholders and charting a series of recommendations that create an environment of progressive growth. In particular, given our experience with the development of the Fire and Fire-based EMS SOCs and Master Plans, we have continually built strong relationships with local, regional Statewide and federal stakeholders while also understanding the complexities of the providing fire service and mutual aid specifically in the Santa Barbara County area with such on-going realities as wildland-urban interface fire issues and evacuations.

We believe you will find that the experience of the Diamante Team and their understanding of the local governance, public safety management, government continuity, hazard identification and mitigation, the complexities of fire and EMS organizations, combined with a thorough knowledge of local, state and federal fire and emergency services regulations, standards, codes and guidelines and regulations make us well-suited to provide the MFPD with consulting services.

We look forward to the opportunity to speak with you regarding our experience and qualifications to work with the MFPD on this very important project. If you have any questions or comments regarding our proposal, please do not hesitate to contact me at the below office number, (916) 932-2124 or (916) 870-6306.

Sincerely,

M. Reginald B. Salvador
Managing Director
Diamante Partners, LLC
rsalvador@diamantepartners.com
(916) 932-2124 office
(916) 265-0329 fax

BACKGROUND INFORMATION

Founded in 2007, Diamante Partners is a Limited Liability Corporation that provides public and private sector entities with comprehensive assessment and planning, business & government continuity planning, training, operational support and exercise services. Diamante is comprised of an unmatched team of professionals with acclaimed and professionally recognized knowledge and proven experience in government planning, including fire, emergency services and EMS management, continuity planning and assessments, research, analysis and group facilitation that will work with the Montecito Fire Protection District (MFPD) and other key regional stakeholders to produce a comprehensive Community Risk Analysis.

Most recently, Diamante worked with the County of Santa Barbara to assist the County Board of Supervisors in developing and implementing a coordinated response to a State of Emergency. Additionally, Diamante continues to assist the Orfalea Foundation with its Aware and Prepare Disaster Preparedness initiative. This community initiative also resulted in the building and opening of the brand new Santa Barbara County Emergency Operations Center.
Based in Folsom, CA, Diamante Partners, LLC provides public and private sector entities with comprehensive management, planning and operational support services. From public policy, emergency management, EMS-fire services, and public safety to environmental, land-use, natural resources, agricultural and governmental concerns, Diamante provides its clients with the enhanced ability to comprehensively achieve its goals in the most cost effective and efficient manner.

Diamante specializes in bridging the inter-dependency between the public and private sectors. Specifically, Diamante provides clients with intimate intelligence related to governmental processes as well as focused operational services support. Diamante works with local, State and federal governmental entities, business entities in the agriculture, energy, public safety, infrastructure, real estate and financial sectors as well as non-profits and philanthropic foundations. Diamante also fully understands the operational, financial and political nuances of California Independent Special Districts. Diamante team members have worked extensively with special districts such as Novato Fire Protection District, Sacramento Metropolitan Fire Protection District and the Fire Districts Association of California.

Diamante has never been involved in any litigation activities and does not have conflicts of interest that would preclude Diamante from preforming consulting services on behalf of the MFPD. In February 2012, former Diamante Founding Partner and ~~former~~ Managing Director Mark Ghilarducci was appointed by Governor Brown and currently serves as Secretary of the California Emergency Management Agency (CalEMA) which is responsible for overseeing and coordinating emergency preparedness, response and recovery in the State; and manages the largest public safety mutual-aid system in the nation. As a result of Secretary Ghilarducci's appointment, Diamante has re-structured its ownership to allow for possible designation as a Disadvantage Business Enterprise (DBE) given Mr. Reggie Salvador's (Diamante Founding Partner and Managing Director) ethnic background of Asian-American/Pacific Islander.

GENERAL QUALIFICATIONS

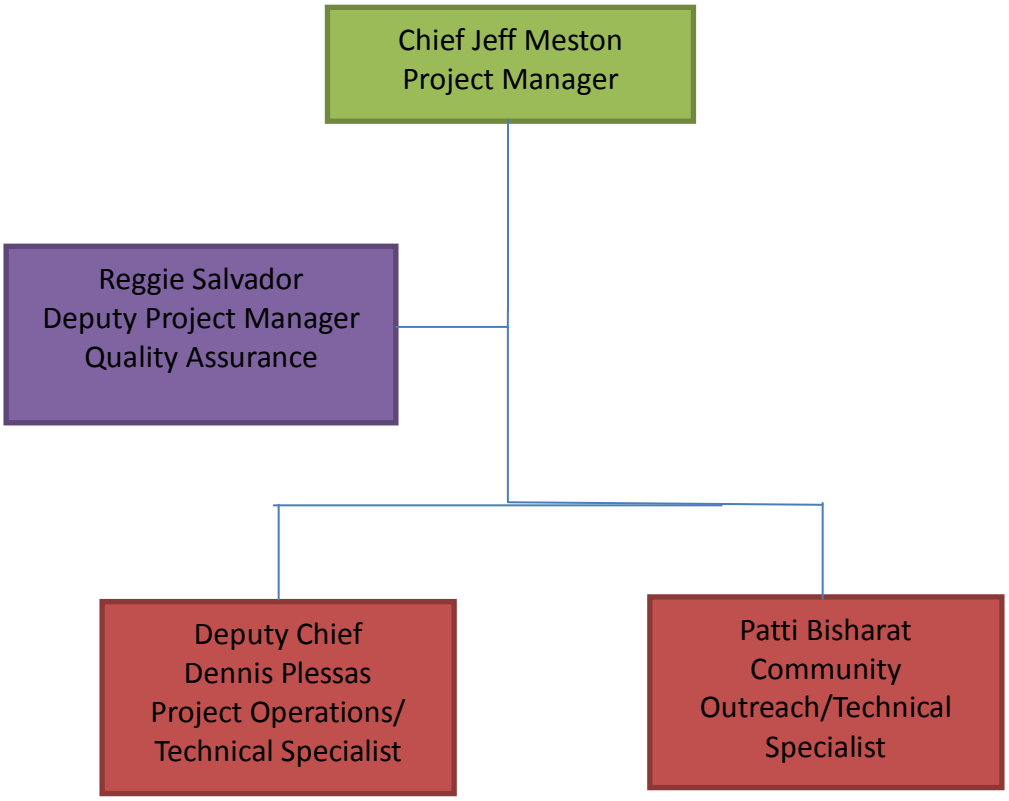
Diamante specializes in providing management consulting and operational support services and is comprised of very experienced and talented former Fire and Emergency Services leaders and tacticians with proven hands-on background in fire service/EMS/Emergency Management and organized labor. Individually and collectively, our team represents many years of applicable experience garnered from extensive work in the emergency & government management, homeland security, fire and rescue and EMS fields that have included successfully spearheading several fire department consolidations as well as numerous community and organizational master/strategic plans.

We possess a comprehensive understanding of the needs of local and state government. All of the members of the Diamante Team have successfully lead complex organizations at every level of government, facilitated work-groups and strategic planning sessions, performed assessments, research and analysis, have advised government leaders, developed reports and delivered briefings or testimony in front of government bodies. For a more in-depth look at some of Diamante's projects, please see the Study References section in this Statement of Qualifications.

SPECIFIC QUALIFICATIONS

Project Team

We have selected key individuals from within and associated with our firm, with unique talents and experiences to deliver the kind of service that the MFPD seeks. The Diamante Team that has been chosen for this project have worked extensively with key public safety agencies, in both Nevada and California, with such organizations as the Washoe County and Truckee Meadows, Nevada, Fire Protection Districts, the California Emergency Management Agency (Cal EMA), the California State Office of the Fire Marshal (SFMO), the California Department of Forestry and Fire (Cal Fire), the California Professional Firefighters (CPF) and with numerous California Independent Special Districts such as Novato Fire Protection District, American River Fire Protection District, Sacramento Metropolitan Fire District and Fire District Association of California. These individuals are intimately familiar with the operational, financial and political realities and issues facing independent fire districts and will form a seamless Team that will interface with the MFPD and associated stakeholders as a single, integrated entity



Project Manager and Subject Matter Expert: Chief Jeff Meston

Jeff Meston retired as the Fire Chief for the Novato Fire Protection District after serving in public service for over thirty years. He has worked in both emergency management and executive leadership capacities. Chief Meston oversaw an independent special district established by the Marin County Board of Supervisors in July 1926. The District serves an area of 71 square miles and a population of 60,000 citizens and is governed by a five member Board of Directors. Chief Meston has directly participated in all-risk emergency and emergency service planning, including fire protection, emergency medical services, fire prevention and investigation services. For several years, he served as a master instructor for the California State Fire Marshal for Master Plan Development and Standard of Deployment Coverage. ***Chief Meston will serve as the Project Manager and lead the assessment and will oversee all initial and final aspects of project operations for the Community Risk Analysis.***

Deputy Project Manager and Quality Assurance: Reggie Salvador

Mr. Reggie Salvador is a founding partner and Managing Director of Diamante Partners, LLC. Mr. Salvador previously served as Deputy Cabinet Secretary where he had direct oversight of six state agencies and twenty-five departments including the Governor's Office of Emergency Services (California Emergency Management Agency), California Highway Patrol, Department of Forestry and Fire Protection (CalFIRE), California National Guard, Department of Housing and Community Development, Department of General Services, Business, Transportation and Housing Agency and State and Consumer Services Agency. He was also responsible for the

development, implementation and on-going evaluation of major policy initiatives for the Governor in the areas of public safety (emergency services, law enforcement, fire, etc.) labor, personnel administration, housing, and energy. ***Mr. Salvador will ensure for quality assurance throughout the project and will be the principal Administrative point of contact for the MFPD.***

Project Operations and Technical Specialist: Deputy Chief Dennis Plessas

Deputy Chief Plessas, formally with the American River and Sacramento Metropolitan Fire Protection Districts, has been personally involved on the management team that facilitated five successful fire district mergers/consolidations, including the expansion of basic and advanced life support delivery programs; enhancement of the public safety telecommunications and data processing systems and development and implementation of regional agency partnerships that includes restructuring of local government relationships and policies. ***Chief Plessas will provide technical expertise to the Community Risk Analysis.***

Community Outreach and Technical Specialist: Patti Bisharat

Patti Bisharat, formally the Assistant City Manager for Public Safety with the City of Sacramento has over 25 years of diverse experience in local government to include finance, public safety, public and media information, transportation and governmental relations. Ms. Bisharat is recognized as an innovator capable of creating new ideas, identifying solutions, developing strategies and executing implementation to desired outcomes. ***Patti will provide technical expertise associated with community outreach, administration and data gathering/analysis.***

Approach to Quality Assurance

Establishing a close working relationship is important to us and close collaboration with officials from the MFPD will be a key part of our normal process. Our Team will work closely with the MFPD, Santa Barbara County and other designated key stakeholders. Even though we will operate as supplemental staff and work to be part of the overall team, we will fully apply our individual and collective experience, knowledge, and perspective to the maximum advantage of the MFPD. In addition, wherever possible, we will incorporate stakeholders in the effort of data and information collection. Our expertise in the areas of all-hazards planning, fire and emergency service consolidation, labor/management facilitation, hazard assessment, training, exercise development and delivery, homeland security, public safety, emergency management, strategic planning, inter-jurisdictional collaboration, as well as command, control and coordination methodologies (i.e.: ICS and NIMS) will be energetically applied to the project.

RESUMES

Chief Jeff Meston

Jeff Meston recently retired as the Fire Chief for the Novato Fire Protection District after serving in public service for over thirty years. He has worked in both emergency management and executive leadership capacities. Chief Meston oversaw an independent paid/volunteer special fire district established by the Marin County Board of Supervisors in July 1926. The District serves an area of 71 square miles and a population of 60,000 citizens and is governed by a five member Board of Directors.

SUMMARY OF EXPERIENCE

- Over 30 years of Fire Service and Fire Prevention
- Extensive background in urban-wildland interface planning and code development.
- Recognized leadership in the development of strategic plans and programs
- Extensive background in Risk Analysis, Master Plan Development and Standard of Coverage Plans

Chief Meston has directly participated in all-risk emergency and nonemergency service planning, including fire protection, emergency medical services, fire prevention and investigation services. In addition, Meston served for several years as a master instructor for the California State Fire Marshal for Master Plan Development and Standard of Deployment Coverage and facilitated his agency being the first in Marin to adopt an Urban-Wildland Interface Code by local ordinance. This ordinance is intended to reduce risk to life and structures from wildland fire while providing firefighters time to provide fire suppression when safe to do so.

Chief Meston served on a number of state committees including the State Fire Marshals committee to develop the California Fire Service Strategic Plan and Stakeholder Survey as well as numerous training and curriculum development committees.

Mr. Reggie Salvador

With a recognized ability to master complex issues involving federal and state laws, complicated regulatory frameworks, and legal issues in high intensity settings, M. Reginald Salvador brings extensive experience in organizational development and management to both the public and private sectors. Mr. Salvador collaborates with executive management from various local, State and federal agencies and departments, private sector, non-governmental organizations and other community-based stakeholders to develop and implement emergency management projects and programs. Mr. Salvador also provides strategic advisory services to public and private sector entities in the areas of crisis and emergency management and communications, economic and procurement strategy and implementation, public policy analysis and government affairs.

Mr. Salvador specializes in taking a regional approach to assessing local and State regulations, statutes and other legislative mandates. This regional approach to public policy enables clients promote, develop and implement effective and efficient emergency management programs.

In the aftermath of Hurricane Katrina, the most devastating natural disaster in U.S. History, Mr. Salvador provided strategic direction to the Louisiana Governor's Office and its respective Cabinet Agencies and Departments in analyzing all gubernatorial policy initiatives post-hurricane for regional implementation. He also surveyed the needs of the Counties of Charlotte, Hardee and DeSoto on behalf of the Florida Tri-County Long-Term Recovery Committee in the aftermath of Hurricanes Charley, Francis, Ivan and Jeanne during the unprecedented 2004 hurricane season in development of its recovery strategy. Aside from public sector clients, Mr. Salvador also represents various private sector firms including portfolio companies of private equity firms as well as communications, pharmaceutical (where he surveyed internal pandemic preparation for a worldwide manufacturer of dermatological and aesthetics medicine), technology and insurance companies.

Mr. Salvador previously served as Deputy Cabinet Secretary where he had direct oversight of six state agencies and twenty-five departments including the Governor's Office of Emergency Services, Office of Homeland Security, California Highway Patrol, Department of Forestry and Fire Protection, California National Guard, Department of Housing and Community Development, Department of General Services, Business, Transportation and Housing Agency and State and Consumer Services Agency. He was also responsible for the development, implementation and on-going evaluation of major policy initiatives for the Governor in the areas of public safety (emergency services, law enforcement, fire, etc.) labor, personnel administration, housing, and energy.

SUMMARY OF EXPERIENCE

- Former Deputy Cabinet Secretary with oversight of 6 state agencies and 25 departments including CalFIRE, CalEMA, CHP, CalTRANS
- High level and extensive experience in policy and strategic initiative development
- Demonstrated experience in supporting disaster response and recovery efforts and long-term economic development.

Ms. Patti Bisharat

Patti Bisharat has over 25 years of diverse experience in local government to include finance, public safety, public and media information, transportation and governmental relations. Ms. Bisharat is recognized as an innovator capable of creating new ideas, identifying solutions, developing strategies and executing implementation to desired outcomes.

Ms. Bisharat currently serves as a member of the executive team, office of the city manager, for a large metropolitan city in California serving as the Director of Governmental Relations. As such, she manages state, federal and local legislative activities for a municipal government with a population base exceeding 460,000. On the local level, she is responsible for the development and implementation of local legislative ordinances. In this capacity, she works closely with elected officials and other members of the executive management team on complex/controversial issues. In addition, she is responsible for citywide communication and media functions as well as citywide policy development and analysis.

Ms. Bisharat has a proven track record in community outreach and communication/media relations. She managed a first-in-California comprehensive community outreach effort to engage residents which included multi-lingual forums and materials, surveys and facilitated community workshops. She has successfully developed and implemented strategies for passage of local ballot initiatives. Her efforts in developing an innovative joint use of facilities program with local school districts earned her the California Cities Helen Putnam Award for Excellence.

Most recently, she facilitated the development of a joint emergency preparedness website to serve a community of over 1.5 million. She serves on a regional emergency operation center management team. As a certified facilitator and trainer, Ms. Bisharat has developed and delivered training for a diverse workforce at both the supervisor and management level as well as facilitated senior executive retreats and strategic planning forums.

Ms. Bisharat holds a Bachelor of Science degree in business administration with a marketing emphasis from California State University, Sacramento. She earned a Master of Public Administration degree graduating with cum laude honors from Golden Gate University, San Francisco. In addition, she is certified in the National Incident Management System and a graduate of the Sacramento Chamber of Commerce Leadership Program. Ms. Bisharat served for three years in the United States Army earning recognition from the Inspector General for outstanding service and received an honorable discharge with Award of Merit. Ms. Bisharat was a member of the Consumer River College Foundation and currently sits on the Board of Directors of Gifts to Share Inc. a non-profit organization supporting local charities and community based organizations.

Mr. Dennis Plessas

Chief Plessas fire service career has spanned over 30 years while serving in many divisions and capacities beginning with the Arcade Fire District in 1975. He has held the rank of Firefighter, Captain, Battalion Chief, Division Chief, Assistant Chief, and Deputy Chief, assigned to the Office of the Fire Chief as Chief of Staff.

As a results-oriented leader, Chief Plessas has made many contributions to the fire service that has shaped the future of the Sacramento regional public safety services. He has been personally involved in management capacity in five successful mergers/consolidations of local fire districts.

SUMMARY OF EXPERIENCE

- Over 30 years of Fire Service and Fire Service Management.
- Demonstrated experience in Organizational Assessments, Mergers and Consolidations
- Facilitated development of strategic plans and programs

His responsibilities have included managing the Office of the Fire Chief including direct oversight of our $140 million budget and relationships with governmental and community leaders throughout the region. He spearheaded the design and development of the Sacramento Regional Communications Radio System (SRRCS) 800MHz trunked radio network and completion of a Regional Emergency Operation Center. In addition, working extensively with various stakeholder groups, he was involved with the establishment of a Region Threat Assessment Center.

Chief Plessas also participated on the management team that facilitated five successful fire district mergers/consolidations, including the expansion of basic and advanced life support delivery programs; Enhancement of our Sacramento area public safety telecommunications and data processing systems; Creation of public information (PIO) and Community Services outreach program and Development and Implementation of regional agency partnerships that includes restructuring of local government relationships and policies

Chief Plessas holds an Associates of Arts Degree in Fire Technology and a Management Certification and was elected to the Board of Directors with the Sacramento County Fire Protection District (Division 6) in 1998. His term concluded upon the reorganization (Annexation) by the Sacramento Metropolitan Fire District in December 2000.

STUDY REFERENCES

Development of a Comprehensive Fire and Fire-Based Emergency Medical Services Master Plan (Budget: < $100,000.00)
2009-2010

Diamante was selected by Washoe County, Nevada to develop a comprehensive Fire and Fire-based Emergency Medical Services Master Plan for the unincorporated areas of Washoe County governed by the County Commission. The master plan includes risk analysis, assessments and recommended methods of improving and/or enhancing existing service delivery and, at a minimum, will include recommendations related to potential consolidations, service equity, opportunities to achieve economy of scale, and enhancements to governance.

The process to develop the master plan was extremely inclusive including public meetings and interviews with stakeholders such as Community Advisory Boards, homeowners groups, elected officials, labor unions, volunteer fire departments and others. As a part of developing the Master Plan, **Diamante developed three (3) separate Standards of Coverage Studies for**:

1) *the Sierra Fire Protection District;*
2) *the Truckee Meadows Fire Protection District; and*
3) *the Volunteer Fire Agencies located within Washoe County.*

In addition, Diamante reviewed the Fire –Based EMS delivery system and its relationship to the third party private EMS/ALS system.

Contact:
(Previous)
Kurt Latipow, Fire Service Coordinator Washoe County, Nevada
Office of the County Manager
1001 East 9th Street
Reno, NV 89520
(775) 846-4445

(Current)
Kurt Latipow, Fire Chief
City of Lompoc, Santa Barbara County
115 South G Street, Lompoc, CA 93436
(805) 736-4513

Development of a Fire Prevention Fee Schedule and Collection Training (Budget: < $30,000.00) 2010

Diamante developed a fee schedule related to the provision of fire prevention related fees for the Truckee Meadows Protection District and delivered training to selected personnel who would be serving customers and collecting fees. Diamante developed the fire prevention fee schedule through a series of concurrent and consecutive actions that included on-the-ground assessments and review of existing procedures and documentation. Diamante established a baseline of operation that included activities, deliverables and a schedule for completion of activities, roles and responsibilities. Diamante also conducted an independent assessment of current operating procedures and identified gaps associated with the fire prevention related services and cost recovery procedures. All of the operational analysis, gap analysis and planning documents were used to develop the fire prevention/assessment fee schedule and cost recovery program.

Contact:
(Previous)
Kurt Latipow, Fire Service Coordinator Washoe County, Nevada
Office of the County Manager
1001 East 9th Street
Reno, NV 89520
(775) 846-4445

(Current)
Kurt Latipow, Fire Chief
City of Lompoc, Santa Barbara County
115 South G Street, Lompoc, CA 93436
(805) 736-4513

City and County of Sacramento- Evacuation Plan (Budget: > $100,000.00) 2008-2009

Diamante team members participated in the development of a comprehensive Citywide and Countywide Evacuation Plan for the City and County of **Sacramento, California (UASI Region Tier II)**. A planning team, made up of City and County of Sacramento Emergency Services Division staff met with numerous stakeholders, including County Departments, Regional Transit and other transportation providers, the (regional) Operational Area Care and Shelter work group, service providers to special needs communities, long-term care facilities, hospitals, and the regional office of the U.S. Department of Homeland Security. From these groups, other groups, and documented literature on evacuation best practices, the planning team elicited input and gained information, maps, tables, and department specific strategy. The completed evacuation plan represents a compilation of the best practices, available resources and evacuation strategies that were derived from those meetings.

Contact:
Mr. Rick Martinez
City and County of Sacramento
Chief of Emergency Services
Sacramento Office of Emergency Services
3720 Dudley Boulevard
McClellan, CA 95652
(916) 871-6565

Santa Barbara County Office of Emergency Services- Board of Supervisors Facilitated Discussion on Emergency Response (Budget: <$10,000.00) April 2012

Diamante worked extensively with the Santa Barbara County Board of Supervisors to facilitate a Public Meeting noticed Governing Board Workshop on emergency response. In conjunction with the Santa Barbara County Office of Emergency Services, Diamante developed pre- and post-event strategies as well as incident command structure (ICS)-based operational

considerations. Additionally, Diamante worked with Santa Barbara County officials (both elected and non-elected) specifically on how executive leadership (i.e.: Board of Supervisors) differed from first-responder and department roles (Public Works, Transportation, OES, etc.)

Contact:
Chief Mike Dyer
Fire Chief and Interim Emergency Operations Chief
Santa Barbara County Office of Emergency Management
4408 Cathedral Oaks Road
Santa Barbara, CA 93110
(805) 681-5526

Orfalea Foundation – Aware and Prepare (Budget: > $100,000.00) 2007 to Present

Diamante currently works with the Orfalea Foundation on the project to enhance emergency preparedness capabilities within the Santa Barbara County Operational Area. Based upon analysis and assessments conducted, assisted by Diamante team members, seven priority theme areas for emergency preparedness improvement have been incorporated as the funding areas of the *Aware & Prepare Initiative*.

Aware & Prepare is an Orfalea Fund Initiative in partnership with Santa Barbara County Office of Emergency Services (SBC OES), and local foundations. The mission is to create a community partnership to enhance capabilities to mitigate, prepare for, respond to, and recover from emergencies and disasters within the Santa Barbara County Operational Area. Public-private partnership was also leveraged to in support of the construction of a new Operational Area Emergency Operations Center (EOC) with over $2 million in private funding. Santa Barbara County broke ground on the new EOC in February 2010.

The highest priority for *Aware & Prepare* is Public Education and Awareness and for the past several years the initiative has invested in all eight major jurisdictions in Santa Barbara County to address the specific needs of their population in promoting emergency preparedness. These efforts have included the development of a community survival guide, "20 Weeks to Preparedness" in cooperation with the American National Red Cross Santa Barbara County Chapter, neighborhood trainings, and expansion of Community Emergency Response Team (CERT) programs. These projects and programs will be culminating in the development of an Operational Area-wide public education and awareness program that will allow for more consistency in messaging while enabling jurisdictions to tailor the programming to meet the needs of their specific constituencies.

Contact:
Ms. Barbara Andersen
The Orfalea Foundations
1283 Coast Village Circle
Santa Barbara, CA 93108
(805) 565-7550

Otay Land Company-Chula Vista Fire Dept.- Review/Analysis of the Fire Facility, Equipment, and Deployment Master Plan - May 2011 (Budget: < $10,000.00)

Diamante Partners performed a third-party review of the Fire Facility, Equipment, and Deployment Master Plan document as prepared by ESCI on behalf of the Chula Vista Fire Department in 2006 and updated in January 2011. The focus of the master plan document was to evaluate the impact of future growth to the City according to the general plan and was envisioned until 2030. The document examined issues and opportunities that exist to provide Fire and Emergency Medical Services to the City that provided the high quality services that the citizens of Chula Vista have come to expect from the fire department. Diamante examined issues presented in the Master Plan in context to the existing Chula Vista fire and life safety service delivery and in correlation to the proposed Otay Ranch Development, and offer relevant opinions as appropriate.

Contact:
Mr. Jeff O'Conner
Otay Land Company-Homefed Corp.
1903 Wright Place, Ste. 220
Carlsbad, CA 92008
(760) 918-8200

FEE SCHEDULE

Diamante Partners provides a fixed rate of **$198.00 per hour** for all consultants on public sector-based projects. Travel, per diem and material costs are separate and based on actual costs.

UNDERUTILIZED DISADVANTAGED BUSINESS ENTERPRISE (DBE)

As previously stated, Diamante Partners as undergone a re-organization and is in the process of becoming a certified DBE given Mr. Reggie Salvador's (Diamante Founding Partner and Managing Director) ethnic background of Asian-American/Pacific Islander.

Proactive Solutions For Tomorrow

MONTECITO FIRE PROTECTION DISTRICT

REQUEST FOR STATEMENT OF QUALIFICATIONS (RFQ) TO PROVIDE A COMPREHENSIVE COMMUNITY RISK ANALYSIS STUDY

INTEGRATED SOLUTIONS CONSULTING

TECHNICAL PROPOSAL

P: 877.437.4271 | F: 877.684.0557 | www.i-s-consulting.com

INTEGRATED SOLUTIONS CONSULTING

May 31, 2013

Montecito Fire Protection District
595 San Ysidro Road
Santa Barbara, CA 93108
Attn: Chip Hickman, Fire Chief

Dear Chip Hickman:

As the individual authorized to contractually obligate and negotiate and as the primary contact for Integrated Solutions Consulting (ISC), I am pleased to present our response to the Montecito Fire Protection District (MFPD) Request for Statement of Qualifications (RFQ) to Provide a Comprehensive Community Risk Analysis Study. The technical proposal and cost proposal presented is valid for ninety (90) days and executable within five days of notice to proceed.

This proposal describes our team, our qualifications, and our approach to meet the study requirements stated within the RFQ. Included in this package you will find:

- 6 Hard Copies of the Proposal
- 1 Electronic Copy of the Proposal

We believe that our team offers the Montecito Fire Protection District a local contractor that embodies all the elements critical to the success of this project. Specifically, the offered team will provide a contractor that:

- ✓ Seasoned Professionals with Academic and Technical Expertise
- ✓ Focused Expertise Supported by a Multi-Disciplinary Perspective
- ✓ A Proven Track Record of Collaboration and Success
- ✓ Proven Best Practices and Innovative Solutions in Emergency Management
- ✓ A Demonstrated Project Methodology that Ensures Programmatic Success

We truly appreciate the opportunity to bid on this very important project. We look forward to the possibility of working with the Montecito Fire Protection District.

Sincerely,

Daniel Martin, Ph.D., CEM, CFM
Managing Principal, Integrated Solutions Consulting, Inc.
412 Notre Dame.
Edwardsville, IL 62025
Phone: 618.307.5111
Fax: 877.684.0557
Email: dan.martin@i-s-consulting.com



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CHAPTER 1- BACKGROUND INFORMATION

EXECUTIVE SUMMARY

Santa Barbara is not immune to hazards that may impact the community. Each year brings new concerns and an increasing probability of one or more significant natural or manmade disasters occurring within Santa Barbara from hazards such as major earthquakes, wildfires, or substantial flooding. While Santa Barbara has made considerable strides in identifying its hazards and understanding the risks faced throughout the County, a comprehensive and objective risk assessment and vulnerability analysis model that is scalable and created and conducted using a *research-based* methodology, will allow for a more holistic understanding of the threats, hazards, and risks facing the County, which in turn can serve as the basis for an analysis of current gaps and capabilities in Montecito's disaster management scheme and a beacon for which to guide future preparedness and mitigation endeavors. Specifically, a strong comprehensive risk assessment and vulnerability analysis model functions to:

- ✓ Serve as the basis for a gap analysis;
- ✓ Aid in the allocation of current resources and identification prioritization of any additional resources;
- ✓ Enhance the knowledge and awareness of administrative authorities and elected officials;
- ✓ Identify way in which citizens can engage in hazard adjustment behaviors;
- ✓ Guide preparedness and mitigation activities and investments;
- ✓ Augment and enrich comprehensive emergency management planning initiatives and priorities.

While a sizeable amount of knowledge regarding hazard identification, risk assessment, and vulnerability exists, and selected guidance regarding hazard identification and risk assessment is also available, this information has not been consolidated and presented into a singular model or methodology that can be easily used by emergency management personnel across jurisdictional boundaries to generate a common operational picture of the hazard threats, community vulnerabilities, and capabilities within their jurisdiction. The academic community has pursued original research in an attempt to discern the best hazard identification and risk assessment techniques. Practitioners in the emergency management and related fields have discovered a variety of lessons learned and best practices for assessing threats and analyzing vulnerabilities. Jurisdictions at all levels of government have created guidelines and recommendations for hazard identification and risk assessment. Yet, this mass of information has not been sifted and synthesized into an accessible, standardized, and reliable model.

Integrated Solutions Consulting (ISC) offers a nationally recognized team with a client-focused culture and unique combination of academic knowledge, practical understanding, and field experience. We feel that this blend of academic knowledge and practical experience, referred to as *"Practademics",* makes us **committed and fully qualified** to fulfill all provisions of this Request for Statement of Qualifications and to assist the Montecito Fire Protection District in the creation of a comprehensive risk assessment and vulnerability analysis methodology that will provide a robust, research-based methodology. As members of the academic community, our team has access to the scholarly databases and journals in the emergency management, engineering, and other supporting disciplines, as well as practice in conducting research and a critical understanding of both quantitative and qualitative research methodology. As affiliates and partners with the practitioner community, our team has cultivated the relationships that allow us to better understand the real needs of the field and the importance of viewing these issues from the practical application perspective. ISC has assembled an exemplary team with the skills, capabilities, and knowledge to synthesize the vast array of emergency management and risk assessment knowledge into an inclusive and objective model, one that relies on the latest research and technology, for threat and hazard identification, along with risk

assessment and vulnerability analysis. More importantly, this model will serve to identify gaps in existing resources and capabilities, as well as guide future mitigation and preparedness pursuits and investments.

DESIGNATED PROJECT OFFICE LOCATION

ISC Local Office:
A-Reum Han
3710 Los Feliz Blvd. #39
Los Angeles, CA 90027
Phone: 818.667.0335

ISC Principal Office:
Daniel Martin
412 Notre Dame.
Edwardsville, IL 62025
Phone: 618.307.5111

Fax: 877-684-0557
www.i-s-consulting.com

Integrated Solutions Consulting (ISC) was organized in the State of Illinois in 2005. Since the inception of ISC, we have become leaders committed to taking an all-hazard, integrated approach to help solve complex challenges facing communities to develop comprehensive solutions and plans for an increasingly volatile world. ISC is a NAICS defined small business enterprise that provides emergency management, mitigation and comprehensive planning, training, and recovery support services to a variety of governmental and industrial clients. Specifically, ISC is focused on developing and implementing comprehensive crisis and consequence management solutions for local governments. This is accomplished by providing top tier consultants that are recognized national leaders in the field of emergency management and possess extensive operational disaster and mitigation programmatic experience. The principles of ISC are based on our combined 70+ years of practical experience and educational attainment in the fields of emergency management, homeland security, law enforcement, health, and environmental sciences; and are supported by our reputation of providing exceptional professional consulting services. These core principles are:

- Comprehensive All-Hazard Solutions
- Continual Innovation
- Client-focused Results

Our Track Record of Client Success

Our Mission is to provide consulting solutions from a professional emergency management perspective for public and private entities. This mission is carried out by our extensive experience in the operational fields of emergency management, homeland security, law enforcement, health, environmental, and critical infrastructure engineering; and is supported by our reputation of providing exceptional professional service. Our principles drive us to achieving continued project success with value-added products. These principles are:

- ***COMPREHENSIVE ALL-HAZARD SOLUTIONS***
- ***CONTINUAL INNOVATION***
- ***RESEARCH-BASED BEST PRACTICES***
- ***CLIENT-FOCUSED RESULTS***

ISC's mission and guiding principles provide a framework to deliver success on every project engagement. We owe much of our success by demanding exceptional consulting services that exceed client expectations, investing in

ISC Top Supplier Performance Rating

✓ *Reliability*	*97%*
✓ *Cost*	*95%*
✓ *Order Accuracy*	*95%*
✓ *Timeliness*	*97%*
✓ *Quality*	*97%*
✓ *Business Relations*	*98%*
✓ *Personnel*	*99%*
✓ *Customer Support*	*98%*
✓ *Responsiveness*	*98%*

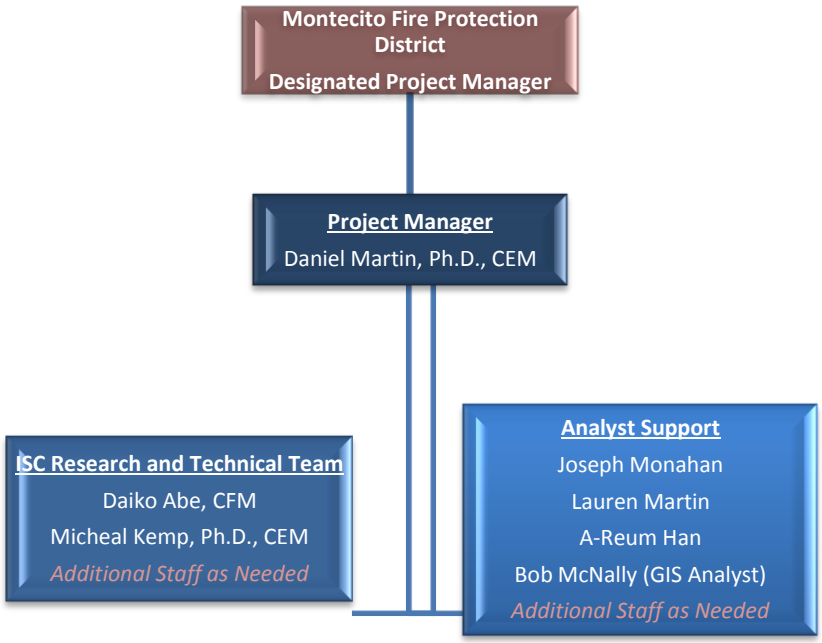
the latest tools and systems to improve our project performance, and maintaining strong client and partnership relationships. Our recipe for continued success has resulted in a continuous track record of exceeding project expectations and client satisfaction. Recently **Dun & Bradstreet** conducted an evaluation of over 50 ISC consulting engagements from coast to coast. Dun & Bradstreet awarded ISC a ***Top Supplier Performance Rating*** for reliability, cost, order accuracy, timeliness, quality, business relations, personnel, customer support, and responsiveness. Our Top Supplier Performance Rating serves as a benchmark to other similar emergency management consultants and sets ISC as one of the industry's premier organizations in our category of service.

Our People

At ISC, we recognize that our past and future success is directly attributed to hiring and continuously investing in outstanding people. We take great care in recruiting seasoned consultants that possess a consistent record of success and demonstrate a commitment to the emergency management profession. Our team is comprised of a complementary group of professionals whose skill sets are based on a mix of academic achievement and proven experience. The skill sets range from a wide variety of fields necessary to offer a complete and comprehensive delivery of technical expertise on any emergency management related project. Although education is highly valued at ISC, we recognize that providing seasoned, real-world professionals is an important component of delivering our clients comprehensive solutions that work. Our consultants range from ambitious professionals with advanced academic degrees and real-world experience to seasoned professionals with over 20 years of experience.

Integrated Solutions Consulting (ISC) will work closely with the Montecito Fire Protection District (MFPD) throughout the Community Risk Analysis. ISC's active participation will help to ensure that the study meets the requirements as defined by DMA 2000, as well as other regulatory and programmatic requirements including the National Flood Insurance Program's Community Rating System (CRS) and the emergency management standards and regulations as prescribed in the California's regulation and guidance. This best-practice approach will provide a steady foundation to integrate mitigation into preparedness activities of MFPD and provide a method to preserve the lives and property of the people of Montecito. More specifically, ISC will provide MFPD with recommendations in mitigation measures that are operational both before and after a disaster; and one that is closely integrated with existing County emergency management planning doctrine, objectives, and strategies.

Below is the proposed local organizational structure for the project. Relevant project experience and specific responsibilities are outlined in Chapter 3- Specific Qualifications and Chapter 4- Study Reference.



Scope of Work

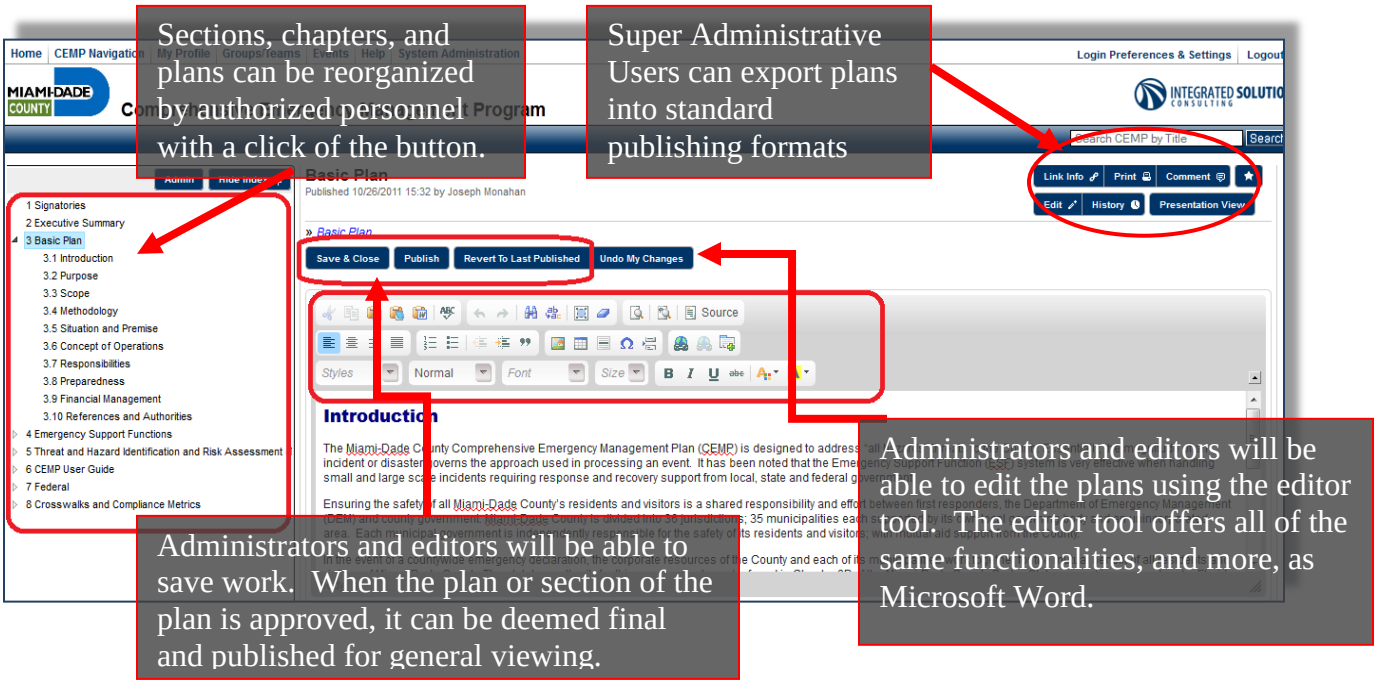
Task 1: Organize Resources

Subtask 1.1: Coordinate with Risk Analysis Team

ISC will work with the designated MFPD. Coordinating with this core group is important to ensure support of the planning process and implementation once the plan is completed. The planning committee will further coordinate with neighborhood groups and other non-profit organizations, state, regional, and local government representatives, businesses and development organizations, federal representatives, elected officials, academic officials, and individuals from neighboring jurisdictions.

Innovative, Optional Subtask 1.2. Launch Odysseus™|CEMP Planning & Preparedness System

In this initial step, the ISC team will upload the existing hazard mitigation plan on the Odysseus™|CEMP System and provide MFPD personnel with a 4-hour training seminar on this emerging technology. This does not obligate MFPD purchase the Odysseus™ system. If MFPD decides that it would like a quote for Odysseus™ system, then the ISC team will provide a quote for one or any of the combined: 1) a one or multi-year license, 2) services to upload emergency management and community-based development plans on the Odysseus®|CEMP System, 3) training, and/or 4) technical assistance. Once plans are uploaded on the system, ISC will work with the MFPD stakeholders to establish a unified planning framework, identify areas of plan inconsistencies and redundancy, and establish a comprehensive framework for the management of various planning committees.



Subtask 1.3: Update Process and Identify Hazards

Before the first formal meeting convenes, ISC will develop issues and points of discussion from the information it has collected. After reviewing the information, ISC will prepare an agenda to be sent to the members before the first meeting. The meetings will address the following key points:

- Address FEMA's requirements for updating mitigation plans; as identified in 44 CFR 201.6(d)(3)
- Identify members' contribution to the planning process;
- Address preliminary goals and objectives;
- Identify (and debrief) meetings with key community stakeholders and any other bodies that may seem appropriate;
- Distribute questionnaires that will assist in identifying resources that will be needed for successful completion of the project;
- Highlight the progress-to-date and the schedule for the remainder of the planning process, and;
- Solicit input from members.

ISC will conduct five (5) meetings on the Risk Analysis process. These briefings will occur throughout the duration of the project.

Meeting 1: In the kickoff meeting, ISC will describe the rationale behind the mitigation program and answer questions from town participants. This meeting will also include a discussion of roles, responsibilities, decision-making processes, administrative procedures, and communication strategies. ISC will present the participating jurisdictions with a Memorandum of Understanding (MOU for sharing data and information).

Meeting 2: At this meeting, ISC will present a local map with the HAZUS-MH critical facilities plotted. This map will be used to elicit better local information from the planning team. The team will also reprioritize the hazards it feels most affects the community and profile the hazards to model with HAZUS-MH including floods and hazardous materials spills.

Meeting 3: Meeting 3 is typically set as the public meeting and often held in conjunction with Meeting 2 or 4. ISC will present the results of the modeling and risk assessment analyses and will answer questions from the planning team and the public.

Meeting 4: In this meeting, ISC will lead the team in a brainstorming session to list and prioritize mitigation strategies that need to be updated or added.

Meeting 5: In meeting 5, the planning team will meet to review and revise the draft plan before adopting it.

To facilitate continual participation of the Local Planning Team, ISC will provide regular correspondence to keep the Team abreast of the status of the MFPD Risk Analysis. This will be accomplished by initiating telephone conference calls, e-mails, interviews, and a limited number of additional meetings, as necessary.

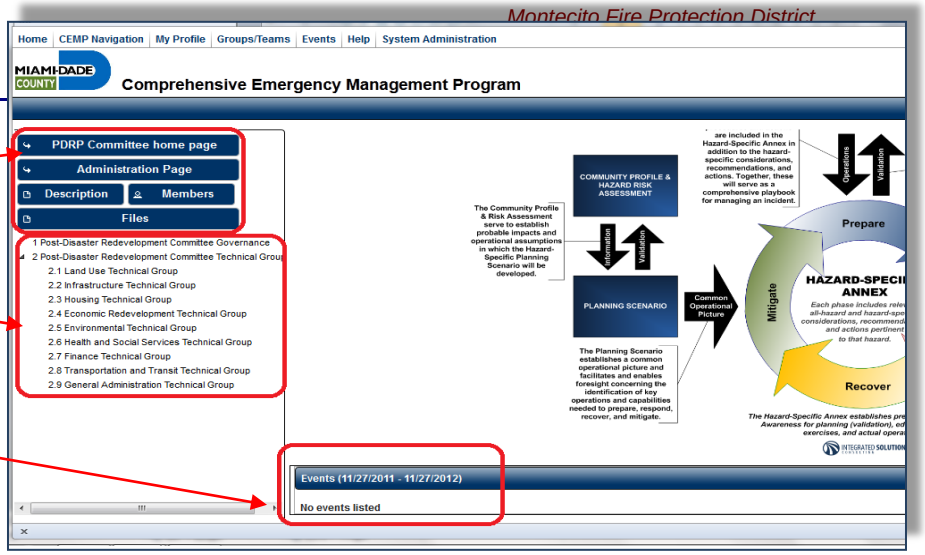
Innovative Optional Subtask 1.4. Odysseus™|Committee Management Tool

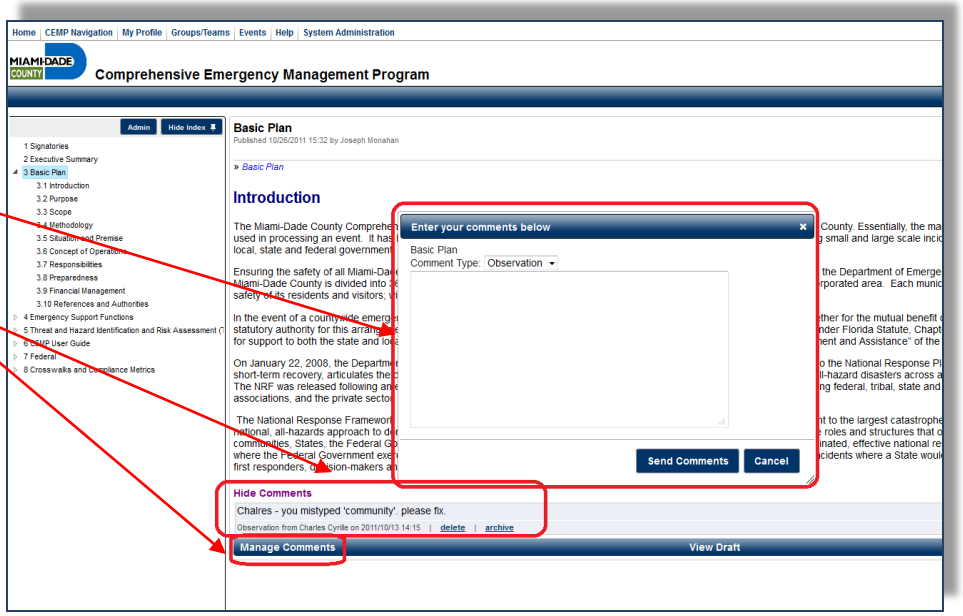
In today's environment of fiscal conservativeness, limited availability of resources, and the necessity to balance competing demands, it is imperative that the engagement of assigned work groups and key stakeholders is efficient and effective. In addition to periodic planning meetings with the MFPD's designated Risk Analysis Study Committee, ISC will utilize its Odysseus™|Committee Management system to document the planning process, provide a method on-going committee collaboration, offer an archival repository of planning meeting minutes and information, and ensure the active participation of committee members and key stakeholders throughout the life-cycle of the Risk Analysis Study.

Manage planning committees using the committee management admin tool. Upload files, prepare governance, document planning meetings, and provide a forum to foster collaboration and information sharing.

Identifies upcoming events. Events are automatically emailed to committee and group members in format that is compatible with MS Outlook, iGoogle, and other calendar products.

Planning team, committee and sub-committee members can provide comment and feedback on any section of the mitigation plan. Comments generate an email to the planning team that summarizes comment and provides hyperlink to the specific concern of the reviewer.





Subtask 1.5: Public Involvement

During the study, ISC will conduct two public forums and several public outreach activities to solicit public involvement. ISC will conduct two presentations in a public meeting and will assist in answering questions. The first will provide a briefing of the County's updated risk assessment findings and present the first draft of the risk analysis (i.e. Meeting 3). The second meeting will present the proposed mitigation recommendations, objectives and strategies (i.e. Meeting 5). These public meetings will be held immediately following or in conjunction with the MFPD briefings/meetings. Public and key agency involvement at this meeting will provide ISC and the MFPD Team with different points of view about the needs of the community and help build consensus for the plan, especially among the approving agencies.

Additionally, ISC will provide support and advice to MFPD's efforts to inform the public about the opportunity to participate in the update process. These efforts may include:

- Advertisements in local newspapers;
- Preparation of public service announcements;
- Distribution of brochures, newsletters and fliers, and;
- Posting information and announcements on the Town web site.

Methods of capturing the public's comments and concerns may include recording or documenting the meetings, providing comment cards, use of easel charts to record comments during question and answer sessions, and memorandums summarizing the proceedings.

Task 2: Assess Risks/GIS Analysis

A community's hazard risk assessment is a critical document that defines a community's strategic common operational picture to mitigate, as well as prepare, protect, respond, and recover to emergencies and disasters. ISC also recognizes that a community's vulnerability assessment and analysis is a definitive measure of the risk associated with each individual hazard. Therefore, in addition to providing recommendation to the MFPD's multi-hazard risk assessment for the mitigation plan, the ISC project team will develop planning considerations that MFPD can integrate into other planning doctrine. This approach will serve as the foundation for other emergency management initiatives and create increased programmatic efficiencies and a common operational picture. Our team will also assist the community with updating the risk assessment by using HAZUS-MH as an added risk assessment tool.

The ISC Team will rely on its experience developing natural, technological, and political hazard risk and vulnerability assessments for some of the nation's most complex communities and infrastructure systems. Our team's proven methodology ensures:

- Uniformity between hazard categories.
- Utilizes empirical values that can be universally applied to all communities, facilities and systems.
- Employs complex GIS modeling and analysis of probable scenarios to provide planning considerations of social, political and physical impacts.
- Grants the flexibility needed to accurately and systematically integrate the vulnerability assessments of critical assets.
- Provides consistency between the State's approach while addressing the unique characteristics and attributes of Montecito.

As part of the community's overall risk assessment, the ISC team will provide an updated analysis of the natural, technological, and political hazard categories by elaborating upon and defining the specific types of hazards; identifying recent events that have occurred locally and/or regionally; updating the hazard profiles, parameters, and characteristics; assessing possible vulnerabilities not addressed in the previous version; determining probable scenarios; and modeling select hazards.

Subtask 2.1: Update & Identify Hazards

The ISC team will help the MFPD's team identify and review all of the hazards that might affect the community, and will narrow the list to the hazards that most likely will impact the community. There is no one source for indentifying which applicable hazards may affect the community. The following methods will be used where applicable. Our team will obtain this information through various avenues, including, but not limited to:

(1) Research of historical documents and data: by accessing newspapers, historical societies, database searches, etc, the ISC team will gather records that may contain dates, magnitude of the events, damage, and further evidence of the past natural disasters in the community.

(2) Review of existing plans and reports: To ensure MFPD is covering all of the possible hazards, our team will collect and review plans and documents that may have information on risk analysis. Transportation, environmental, dam, or public works reports or plans are examples of documents that may contain relevant information. These documents will be reviewed to identify a list of disasters and potential issues that have occurred in the past. In addition, local comprehensive plans, land use plans, capital

improvement plans, as well as building codes, land development regulations, and flood ordinances will be reviewed to identify hazard provisions that indicate the presence of local hazards.

(3) Inventory Assets: Using GIS data management and analysis, an inventory of the Montecito's assets will be developed based on the five categories defined in DHS/FEMA protocol. This inventory of assets will assist in identifying areas that are subject to the various natural hazards in the subject area. These five categories consist of:

- Essential Facilities
- Transportation Systems
- Lifeline Utility Systems
- High Potential Loss Facilities (financial institutions, government buildings, etc.)
- Hazardous Waste/Materials Facilities

An initial inventory will use the baseline data contained in HAZUS-MH and supplemented by GIS data provided by the Montecito. The effort includes developing and mapping a general inventory of assets in the community. Using a base map, the ISC team will identify the assets inside areas for each identified hazard that has a defined physical geographic boundary.

Our team will review the inventory to ensure that all facilities, infrastructures, and sectors critical to the continuity of government, operations, and services provided by Montecito are included in the risk analysis study. If data is insufficient or clarification is needed, a representative of ISC will contact the client and/or client representative to discuss additional efforts that will be required, as well as possible implications to this project scope and schedule.

(3) Coordination with emergency managers and key stakeholders: In close coordination with the MFPD, the ISC team will make efforts to coordinate with the local, state, and federal governments to obtain hazard information, development trends, known vulnerabilities, and past experiences mitigating, responding, and recovering from disasters. Coordination efforts will include:

- Interview pre-identified local officials and pre-identified FEMA officials
- Contacting other resources such as Natural Hazards Center, Hazard Disaster Center, National Weather Service, Association of State Floodplain Managers, International Association of Emergency Managers, etc.

Coordination efforts will be accomplished using the following methods:

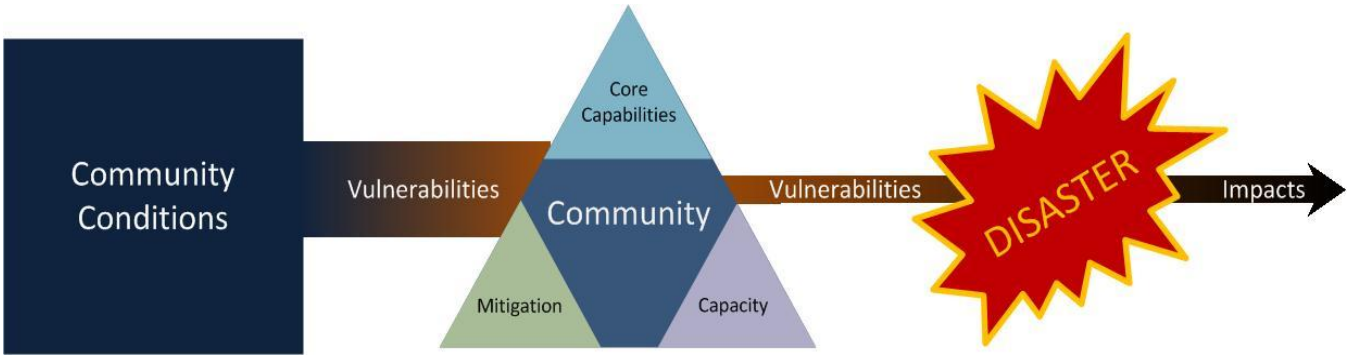
- Documented telephone calls and interviews
- E-mail correspondence
- Meetings (if necessary) – in conjunction with previously scheduled client meetings – with key stakeholder representatives

Innovative Optional Subtask 2.2. Launch Odysseus™|Community Vulnerability, Risk & Resiliency (CVR2) System

There has been growing attention of the importance of thoroughly understanding pre-disaster vulnerabilities and incorporating this knowledge into the risk assessment process. Past research has shown that disasters are social constructs and that large-scale hazard events exacerbate the preexisting conditions of the community. This finding provides clarity that a community's threat and hazard risks is a function not only of a community's core capabilities

Disasters are symptoms of broader and more basic problems. Many disaster losses – rather than stemming from unexpected events – are the predictable result of interactions among three major systems: the physical environment, which includes hazardous events; the social and demographic characteristics of the communities that experience them; and the buildings, roads, bridges, and other components of the constructed environment.

and potential hazard impacts but also provides support that consideration must be made to evaluate the community's pre-disaster conditions that either heighten or reduce its vulnerability to disaster. When disasters happen they have a cascading impact on a community and its residents, essential services, and critical assets. These direct and cascading impacts from disaster are increasing because our communities are becoming increasingly complex and interconnected. This fundamental finding of community risk was described by Dr. Denis Mileti in 1999 and illustrated in the following diagram

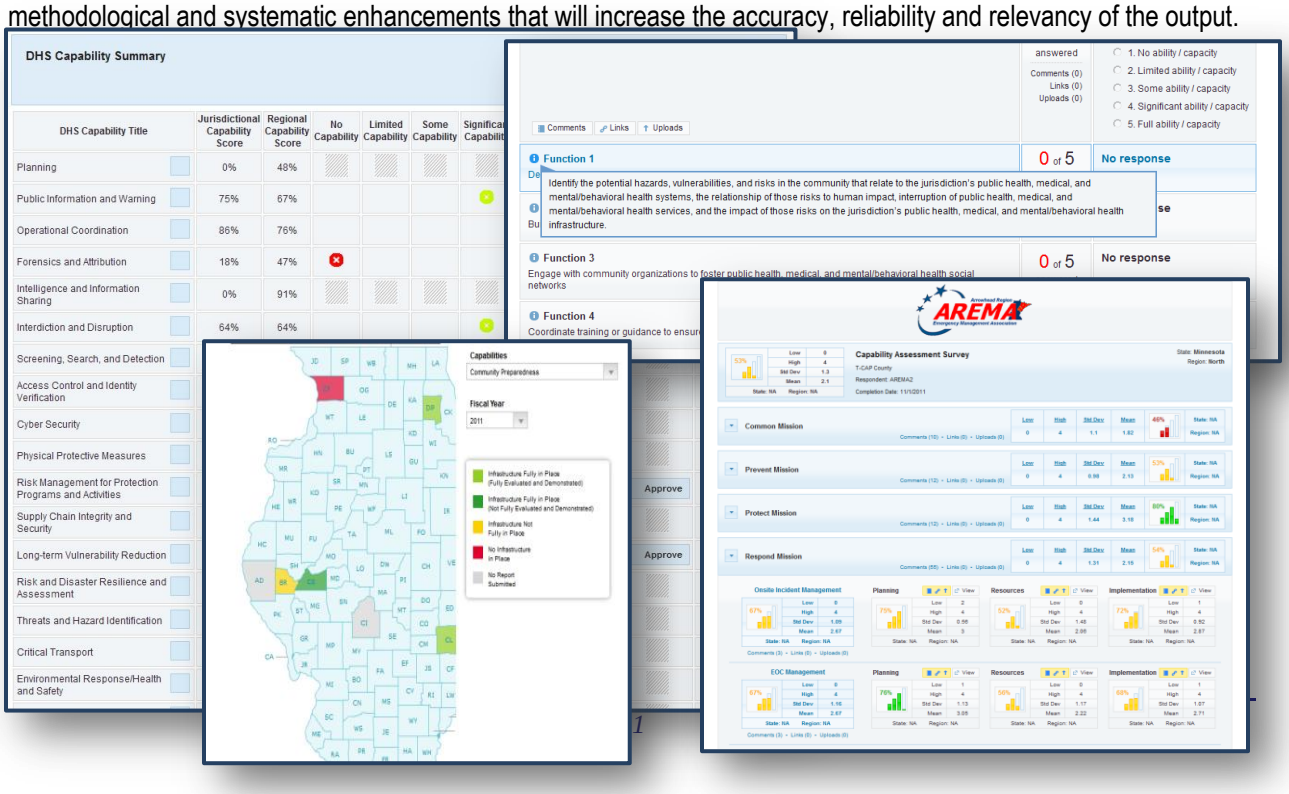


This understanding of the importance of vulnerability in understanding community hazard risk, evaluating impacts and needs, and assessing capabilities is also acknowledged by CPG 201 which states:

Risk is commonly thought of as a product of a threat or hazard, the vulnerability of a community or facility to a threat or hazard, and the resulting consequences that may impact the community or facility. By considering changes to these elements, a jurisdiction can understand how to best manage risk exposure.

For this optional task, ISC will launch a web-enabled Community Vulnerability, Risk, & Resiliency (CVR2) assessment system for Montecito. Assessors and evaluators will be given access to the system as well as a brief training session to introduce users to the functionalities and capabilities of the system.

The web-based assessment platform will offer significant efficiency in conducting the assessments, capturing data, and providing reports and analytics of the findings. The Community, Vulnerability, Risk & Resiliency (CVR2) assessment system provides all of the components utilized in previous risk assessments as well as several methodological and systematic enhancements that will increase the accuracy, reliability and relevancy of the output.



The Community, Vulnerability, Risk & Resiliency (CVR2) assessment system serves as a dynamic planning tool that utilizes proven hazard analysis strategies and processes to build partner consensus, ensure uniformity, control the influence of risk perception, and provide results that are operationally significant. The output of the CVR2 Model is a prioritized indication of planning risk considerations and dashboard analytics that can be incorporated into the community's comprehensive preparedness efforts, providing a foundation that will increase programmatic efficiency, operational effectiveness, and a unified common operational picture. The CVR2 assessment system is a culmination of over 100 years of emergency and disaster management knowledge and incorporates this intelligence into a user-friendly, web-based [POINT AND CLICK] platform. The robust and user-friendly interface of the CVR2 assessment system allows for easy and efficient update as the community changes and tracking of its hazard vulnerabilities.

Topic	Description	
Social Vulnerability Analysis [SVI]	Number of Index Indicators:	63
	Methods of Measurement:	182
	While many definitions of social vulnerability exist, this concept can be broadly viewed as the characteristics of a person or group and their situation that influence their capacity to anticipate, cope with, resist and recovery from the impact of a hazard or threat. Social vulnerability can also be looked at as the susceptibility of social groups to the impacts of hazards, as well as their resiliency or ability to adequately recover from them. It should be noted that susceptibility is not only a function of demographic characteristics, but also more complex factors such as health care provision, social capital, and access to lifelines. The community social vulnerability index evaluates the hazard risk exposure of special population types, socio-economic conditions, and cultural conditions using over 63 indicators and 182 measurements of open-source data.	
Community Conditions Vulnerability Analysis [CVI]	Number of Index Indicators:	28
	Methods of Measurement:	118
	Community-level indicators are measures of conditions within a community that allow the community to better understand how the community and its vulnerabilities may be impacted during a hazard event. A community is a complex system of many interconnected components. This assessment is not meant to capture this system in its entirety, but rather to focus on specific categories of indicators. The Community Conditions Vulnerability Analysis focuses specifically on seven (7) broad categories which are comprised of over 28 indicators of community vulnerability and 118 measurements.	
Physical Vulnerability Analysis [PVI]	Number of Index Indicators:	108
	Methods of Measurement:	288
	The physical vulnerabilities of a community consist of the tangible assets, or built environment, that residents depend upon to provide shelter, facilitate connectivity of the community, and the provision of goods and resources. The built environment provides the setting for human activity, ranging in scale from personal residential structures and buildings to neighborhoods and cities that can often include their supporting infrastructure, such as transportation networks, energy or water systems. The physical vulnerability analysis index can be used to evaluate the community's critical infrastructure, key resource assets, and building stock's risk exposure to hazard using over 108 indicators and 288 measurements.	
DHS Core Capability Index	Number of Index Indicators:	31
	Methods of Measurement:	*Note
	The DHS Core Capability Index involved the mapping and integration of prior Target Capability scores of past assessments, when available. Prior assessments were re-evaluated to determine accuracy and relevancy. Gaps between prior Target Capability Assessments and Core Capabilities were then addressed and included the assessment of current know core capabilities based on best available data.	
Community	Number of Index Indicators:	21

Capacity Index	Methods of Measurement:	75
	From an emergency management standpoint, capacity and/or capability building is an important component to addressing a community's vulnerabilities and, as a consequence, increasing the community's resilience to hazards. Capacity/capability building infers that the knowledge base necessary to plan for and implement hazard protection and resiliency measures primarily reside within the community itself. Similarly, capacity building can also be defined as the means by which a community can "tap into its own strengths and abilities". Capacity building is contingent upon having the necessary resources and the will to mobilize them, and includes the community's institutional framework, technical know-how, and financial resources necessary to act. This evaluation metric will also address several categories which research has demonstrated to be key variables of assessing risk. These include: • General Capability & Capacity • Level of Preparedness • Political Capacity • Coordination Capacity • Staffing Capacity • Financial & Admin Capacity	
Hazard Risk-Consequence Index	Number of Index Indicators (per hazard):	23
	Methods of Measurement (per hazard):	739
	Each of the vulnerability and capability assessments will be incorporated into an assessment of **each specific hazard** based on the following criteria: Frequency/Probability, Magnitude and Scale, Human Impact (i.e. injuries and fatalities), Damages, Vulnerability, Capabilities/Capacities, and Mitigation. The hazards will be categorized into natural, technological, political (terrorism), and health. Local data will be culminated to provide context to each hazard type. In addition to providing local data, the assessment also includes state and national data, when feasible, in order to provide a comparative mechanism.	

Task 3: Mitigation Recommendations

Effective mitigation actions and preparedness activities are complementary of one another and provide a holistic approach that aligns multiple state and federal directives and funding. The recommendations proposed by ISC will ensure compliance with DMA 2000, and will delineate between pre-disaster (FEMA's PDM program) and post-disaster (HMGP 404 and 406) actions.

In the previous tasks, hazards were redefined, vulnerabilities were reassessed, and the losses were estimated. Development of a prioritized and updated list of mitigation action recommendations will be developed that will reduce future risks and losses. This task will assist ISC in the following:

- Update goals and objectives
- Identify and reevaluate mitigation actions
- Update the capabilities assessment
- Update mitigation strategies

Subtask 3.1: Review and Analyze the Hazard Risk-Mitigation Alternatives

Information revealed in the updated hazard profiles and loss estimation will be used to develop clear mitigation goals. ISC will attend the planning meeting and review the results of the previous risk assessment planning process that outlined the updated hazard profiles with details on the causes of hazards, the likelihood of occurrence, the potential severity, and the extent of areas affected. ISC will review the loss estimation dollar amount of damages for particular hazard events, as well as related economic information like business interruption and revenue losses.

3.1.1 Review the finding of the risk assessment

ISC will participate in a workshop to review the risk assessment report and composite maps. The emphasis of the workshop is knowledge and understanding of the causes of the hazards and better preparation for determining mitigation actions.

3.1.2 Develop a list of problem statements based on these findings

The county planning team will take the results of the risk assessment and develop a problem statement to clearly point out which hazard to address first.

Subtask 3.2: Review the Mitigation Plan and Objectives

A multi-hazard mitigation plan defines mitigation goals and objectives for the community. Based upon the hazard profiles, hazard loss, vulnerability and risk assessment, the local planning team will update mitigation goals that articulate the town's desire to protect people and structures, reduce the cost of disaster response and recovery, and minimize disruption to the community following a disaster.

ISC will prepare a Memorandum stating the updated Mitigation Goals and Objectives as identified by MFPD. Additionally, ISC will schedule and conduct a meeting to review draft mitigation goals and objectives with the Local Planning Team and the general public. ISC will solicit feedback in order to gain buy-in and consensus. The local planning team, with assistance from the contractor, will also update mitigation objectives that define strategies or implementation steps to attain the identified goals.

Subtask 3.3: Identification and Reprioritization of Mitigation Actions

Mitigation actions consistent with the goals and objectives that were previously defined will be reevaluated. The hazard mitigation plan defines the action plan to reduce community loss from future hazard events. In order to update a plan that can be integrated into other emergency management operational phases, it is important to acknowledge the interdependencies of mitigation with response, recovery, and preparedness functions of emergency management. ISC will explore mitigation actions relevant to:

- Prevention
- Property protection
- Public education and awareness
- All resources protection
- Emergency services
- Structural project

The mitigation actions updated will be evaluated to determine the action's effectiveness and efficiency for preventing, protecting, and reducing damages to the community's assets from natural hazards. Evaluation of these mitigation actions will be based on, but not limited to, the following criteria:

- Historical projects of similar scope of magnitude
- Economic benefits
- Environmental impacts
- Community acceptance
- Staffing and funding
- Maintenance needs
- Political support
- Legal authority
- Technical feasibility

Subtask 3.4: Review the Implementation Strategy

The implementation strategy identifies how MFPD proposes to achieve its Mitigation goals and objectives. The mitigation action implementation strategy will redefine, identify, and confirm mitigation actions, partners, resources, and schedules.

ISC will prepare a draft Mitigation Implementation Strategy Recommendations for review by Montecito Fire Protection Department.

CHAPTER 2- GENERAL QUALIFICATIONS

Whether a community or a state, understanding risks especially as it relates to natural and manmade hazards is a critical element of any emergency management program. In recent years, there has been an emphasis on the need for every jurisdiction at every level of government to conduct a comprehensive risk assessment and vulnerability analysis. This most notable call for these investments came in a September 2010 report to Congress by the Local, State, Tribal, and Federal Preparedness Task Force. According to FEMA's Strategic Plan, which acknowledges this Task Force's recommendation, "Threat and Hazard Identification and Risk Assessments are intended to be tools that allow organizations at all levels of government to identify, assess, and prioritize their natural and man-made risks, facilitate the identification of capability and resource gaps, and allow organizations to track their year-to-year progress to address those gaps." According to their recommendations, "once completed, future grant investments should be tied to assessed risk and existing capability at the local, State, Tribal, Territorial, regional, and national levels". This recommendation was further reinforced by Presidential Policy Directive 8 and FEMA's announcement on December 6, 2011 that identifies six components to improve national preparedness for a wide range of threats and hazards which are:

- Identifying and assessing risks;
- Estimating capability requirements;
- Building or sustaining capabilities;
- Developing and implementing plans to deliver those capabilities;
- Validating and monitoring progress made toward achieving the National Preparedness Goal; and
- Reviewing and updating efforts to promote continuous improvement.

Important Attributes of a Successful Risk Assessment
1. Framework Consistent with Comprehensive EM
2. Be Applied Uniformly Across All Hazards
3. Informs and Guides Other Program Activities
4. Scalable & Flexible Design
5. Incorporates Thorough Vulnerability Analysis
6. Evaluates the Interconnectedness of Cascading Impacts
7. Ensures Compliance
8. Builds in Efficiencies
9. Methodology Ensures Reliable and Accurate Outputs
10. Involves Process that Encourages Consensus and Participation

While many strategic and operational level planning initiatives are all-hazards in nature, communities must not ignore or undermine the importance of determining what hazards require special attention. In general, recognizing the potential hazards, identifying the types of impacts a community may encounter, and determining the level of risk, will largely influence the type of plans and programs that are needed for that specific jurisdiction, including the identification of core capabilities and establishing capability targets. It will also aid in the allocation of resources, policies, and operation-specific procedures and protocols that will be necessary to adequately and efficiently prepare for, mitigate against, respond to, or recover from a potential disaster. Also, if done correctly, conducting a thorough and comprehensive risk assessment and vulnerability analysis will also help guide mitigation-related activities and projects, and help procure much-needed funding by validating the need for such projects and capabilities.

In essence, the quintessential purpose of conducting a risk assessment is to ensure decision-making is not done in a vacuum. Instead, it makes certain decisions are made with the best available knowledge that is based on

the most accurate and up-to-date information concerning the potential hazards and their likely impacts and consequences.

Additionally, it is commonly recognized throughout the field of emergency management that the hazard analysis and risk assessment provide the core foundation of comprehensive emergency management program and a framework to guide and inform preparedness, response, recovery and mitigation efforts for all hazard threats. A thorough risk assessment and vulnerability analysis has much greater usefulness than a simple output of hazard risk prioritization. The information and data that supports the analysis can be used to support, reference, or even validate program considerations and improve the decision making of comprehensive emergency management activities. Additionally, a comprehensive risk assessment and vulnerability analysis should offer efficiency by providing a strategy that is scalable, flexible, and compliant with state and federal grant, administrative programs or legal requirements that guide program measures and activities. By developing a scalable and flexible, yet consistent, methodological framework, the risk assessment and vulnerability analysis can be applied uniformly from community to community and hazard threat to hazard threat throughout the state, and integrate into a comprehensive statewide risk management strategy. A Hazard Identification and Risk Assessment must not only comply with the regulatory and programmatic expectations, but should also achieve DHS's "Whole Community" objective. By building in metrics that ensure compliance and participation, local stakeholders can be offered a risk assessment and vulnerability analysis strategy that not only reduces the burden on local counties to develop their own hazard risk assessment but also provides efficiency by allowing these important stakeholders a mechanism that can be leveraged into other concurrent or future preparedness activities.

Specifically, our team will provide MFPD with a team that exhibits the following characteristics:

- ✓ **Focused Expertise Supported by a Multi-Disciplinary Perspective:** Our primary business is to assist in the development and implementation of proactive solutions for emergency management agencies by delivering comprehensive, all-hazard, and multi-disciplinary services.
- ✓ **Track-Record of Collaboration and Success:** Our Team has partnered, collaborated, and successfully delivered on complex emergency management projects at the local, state, and federal level, including working with the Federal Emergency Management Agency.
- ✓ **Proven Best Management Practices:** We have a proven project management methodology that can ensure that these critical projects remain on budget, are quality driven, properly staffed, and constantly focused on accomplishing the project's objectives.
- ✓ **Seasoned Professionals with Academic and Technical Expertise:** Our Team combines academic achievement with technical excellence and seasoned emergency management professionals that can deliver *research-based,* national best-practices and lessons-learned.

Prior Experience

Our relevant experience is comprised of broad array of similar and complementary projects that are supported by a record of accomplishment of successful project and program execution. An essential element of this achievement is attributed to our ability to utilize our team's cooperative strengths to provide our clients with multi-disciplinary solutions to their emergency management projects. This multi-disciplinary approach provides a framework that incorporates all hazards and integrates all phases of emergency management, while aligning and complementing Federal and State directives in order to maximize programmatic and fiscal efficiency. The proposed team will utilize their collective experience of providing services for Federal, State and local emergency management agencies.

CHAPTER 3- SPECIFIC QUALIFICATIONS

Integrated Solutions Consulting (ISC) recognizes that the successful management of this project is dependent upon our ability to effectively deliver exceptional professionals with a documented record of success. Our continued success has served to strengthen our belief that our team must be coordinated and versed in a wide array of fields that support emergency management operations, specifically risk analysis. Our team is unmatched in its abilities and experience; providing Montecito Fire Protection District with a value-added service that will provide comprehensive and innovative solutions.

Key personnel positions for this project include the Project Manager, and a highly selective group of essential staff that will be dedicated to support this project as needed. All key personnel assigned to this project have backgrounds in emergency management, hazard mitigation planning, GIS, operations and strategic comprehensive emergency planning, and GIS mapping.

Principal/Project Manager

Daniel Martin, Ph.D, CEM

Dr. Martin is a nationally recognized Certified Emergency Manager (CEM) and a Certified Floodplain Manager (CFM) with extensive all-hazard mitigation planning and post disaster recovery operations knowledge and expertise. His prior experience managing large Federal and local government task-oriented contracts, diverse expertise in the field of emergency management, track record of ensuring client satisfaction, and delivering technically accurate products make him an outstanding fit for this position.

The Project Manager will be responsible for the overall direction of the team and the overall success of the contract. The Project Manager will play a significant role in maintaining client relationships, monitoring work progress against the work plan and budget, and developing status reports. He will coordinate with the MFPD Project Manager on all program management matters related to the project, as well as any technical matters identified by members of the team that will influence the scope or budget of this project.

Research and Technical Team

All of our planners and support staff are individuals with experience in disaster and emergency management operations as well as possess knowledge in various support disciplines. These individuals will be responsible for ensuring the City's plans are completed according to polices and regulatory requirements of the Robert T. Stafford Disaster Relief and Emergency Assistance Act (Section 404 and 406), the National Flood Insurance Act, the Flood Disaster Protection Act, and the Disaster Mitigation Act of 2000.

Daiko Abe, CFM

Daiko Abe will utilize his extensive planning, mitigation, vulnerability indexing, emergency management expertise and history of successful project management to implement essential project and management techniques. His direct experience includes preparing emergency management planning doctrine for several local jurisdictions. As a former Communications Director, Mr. Abe also has experience in legislative and governmental affairs and policy; media relations; public outreach; crisis management support services; grant writing, administration and management. He is currently a candidate for advanced degrees in emergency management with a special area of emphasis in hazard mitigation planning and risk and vulnerability assessments.

Micheal A. Kemp, Ph.D, CEM

Professor Kemp is formally educated holding several advanced degrees in emergency management, disasters, education, administration and management. He is a certified emergency manager (CEM) and a certified incident commander. Professor Kemp has held several emergency management related positions to include serving as a project manager for major mitigation projects with two separate mid-tier Universities and the Disaster Resistant Universities (DRU) program, a team leader as a weapon of mass destruction first responder, a public information specialist for an information clearinghouse, and as a HSEEP coordinator for 14 counties.

Analyst and Support

Lauren Martin

Lauren Martin has developed an exceptional leadership style that promotes and cultivates an environment of teamwork, respect, and continued learning. Ms. Martin possesses intimate programmatic knowledge in the administration of the FEMA's Public Assistance and Hazard Mitigation programs, which enabled her in past disaster operations to successfully represent FEMA leadership and negotiate with key officials on controversial issues. Ms. Martin's skills as both an oral and written communicator have allowed her to investigate and analyze conditions, identify areas of issue, and implement corrective action as necessary, as well as effectively disseminate program guidance.

Joseph Monahan

Mr. Monahan received his degree in civil engineering from the University of Wisconsin – Madison. As an engineer, he has focused extensively on natural hazard and infrastructure risk assessments. Mr. Monahan's career has been focused on hazard mitigation, and has contributed on a number of engineering projects in the government sector with a special area of emphasis in hydrology. Mr. Monahan was one of the key writers for the City of Chicago All-Hazard Risk Assessment and Mitigation plan, and has contributed to a number of other hazard-related projects. He is proficient in ArcGIS and HAZUS-MH, and has provided GIS support on a number of key projects, including the City of Chicago's All-Hazard Risk Assessment and Mitigation Plan.

A-Reum Han

A-Reum Han has an extensive range of experience in public health ranging from emergency preparedness, clinical research, to academic settings. Ms. Han has also assisted in the identification and implementation of community preparedness capability elements into existing planning activities to ensure public health preparedness planning for the City of Evanston. She also assisted on the completion of the jurisdictional hazard vulnerability risk assessment, while leading the identification of vulnerable and at risk populations for Evanston.

RESUMES OF KEY PERSONNEL

DANIEL MARTIN | PRINCIPAL/PROJECT MANAGER

Summary of Qualifications:

For more than 15 years, Mr. Martin has worked with local, state, and federal governments, as well as international corporations, to provide professional environmental and emergency management consulting in various capacities including responding to over ten disasters, including the 2001 World Trade Center Attacks, the 2004 Florida Hurricanes, and Hurricane Katrina.

Mr. Martin has a myriad of all hazards, multi-jurisdictional, emergency planning experience for a diverse array of entities including International Airports, rural and urban communities, county municipalities, Native American Indian Tribes, private corporations, FEMA, and DHS. Mr. Martin's planning experience includes contingency & strategic operational response, post-disaster recovery, catastrophic housing and individual assistance, business continuity, hazard mitigation, comprehensive emergency management, environmental assessments, best-management practices, spill prevention control, and floodplain management plans.

Senior client officials have recognized Mr. Martin for his extensive knowledge of the federal disaster recovery and mitigation programs, regulations, and policies, as well as disaster operational practices. Mr. Martin is a FEMA-certified Instructor and has prepared, provided oversight, and/or managed the development of over $1B in disaster recovery and mitigation grants, including grants associated with 9/11, the 2004 Florida Hurricanes, and Hurricane Katrina.

Highlights

- Architect of numerous FEMA-approved All-Hazard Mitigation Plans
- Experience with port facility disaster recovery
- Managed over $1.5B in post disaster recovery and mitigation grants
- Responded to over 20 disasters, including World Trade Center and Hurricane Katrina
- Recognized expertise in critical infrastructure and vulnerability assessments
- Training cadre member of FEMA EMI's recovery and mitigation program
- Advanced degrees in Emergency Management and Homeland Security

Education:

- Ph.D in Emergency Management, North Dakota State University, Fargo, ND
- Master's Degree in Disaster and Emergency Management, Concentration in Homeland Security Policy, American Military University, Washington, D.C.
- Bachelor of Science in Environmental Engineering Technology, Minor in Industrial Engineering Technology, University of Dayton, Dayton, OH

DAIKO ABE , CFM | RESEARCH AND TECHNICAL TEAM

Summary of Qualifications:

Mr. Daiko Abe has been a major contributor in the preparation of emergency management planning doctrine for local jurisdictions. Specifically, he has been instrumental in developing and writing critical plans for the City of Chicago and other local counties and jurisdictions in Minnesota, Illinois, and Idaho. Mr. Abe has excelled in providing comprehensive all-hazard planning services in all phases of emergency management. As a former communications director and government/legislative affairs specialist, Mr. Abe also has experience shaping and influencing policy at all levels of government; media relations; public outreach and education; crisis management support services; and in grant writing and administration. He has experience as a coordinator and facilitator and has organized numerous workshops and training sessions.

Mr. Daiko Abe is currently completing a master's degree program in Emergency Management, and is also pursuing a Ph.D. in the same field of study. Mr. Abe has conducted major research initiatives in the specialized area of hazard mitigation planning and risk and vulnerability assessments. He has been recognized for his dedication and work ethic by senior program officials and executives.

Highlights

- Emergency management experience developing plans for local jurisdictions
- Pursuing advanced degrees in Emergency Management
- Public outreach and communications specialist
- Former Communications Director

Education:	**M.S.**, **Emergency Management**, North Dakota State University, Pending completion of thesis (2011) **B.A.**, **Communications/Public Relations**, Brigham Young University – Idaho, December (2005)

ROBERT MCNALLY | GIS ANALYST

Summary of Qualifications:

Mr. McNally has over 20 years of public safety experience. Having initially served as a first responder, then as a manager and trainer before becoming a consultant, Mr. McNally has viewed the challenges of emergency management from all sides, injecting the practical reality of emergency response into his expert analysis and recommendations.

Mr. McNally has a master's degree in urban/regional planning, specializing in Geographic Information Systems and has emphasized applying GIS to a variety of complex challenges within emergency management. He has conducted numerous research projects in the emergency management realm relying on the use of GIS, including a project on critical infrastructure planning and protection that was recognized as exemplary research by a statewide geographic association.

Because of his expertise, Mr. McNally has been sought after by his alma matter to teach classes in both emergency response and GIS. He has also been a feature speaker at numerous conferences on issues of emergency management and public safety and how to leverage GIS to meet those issues.

Highlights

- Over 20 years of public safety experience
- Master's degree in Urban/Regional Planning with an emphasis on Geographic Information Systems (GIS)
- Significant experience in applying GIS solutions to emergency management challenges
- Experience in teaching GIS at the university level

Education:	▪ **M.A. Urban/Regional Planning**, University of North Carolina at Charlotte ▪ **B.A. Public Administration**, Kean University

MICHAEL KEMP, PH.D., CEM | RESEARCH AND TECHNICAL TEAM

Summary of Qualifications:

Dr. Michael A. Kemp is formally educated having completed several advanced degrees to include a PhD and MS in emergency management, A MS in criminal justice, and a Graduate Certificate in collegiate teaching. Dr. Kemp is also a certified emergency manager (CEM) and a certified HAZMAT incident commander that prides himself in linking the theoretical and the practical aspects of emergency management. He has been project leader, subject matter expert, and or played a key role with various projects to include: critical infrastructure, mitigation, planning, hazard identification and risk modeling, vulnerability identification and indexing, training, assessing/evaluating, hazardous materials, weapon of mass destruction, physical security, and continuity of operations.

Concerning emergency management and homeland security issues, Dr. Kemp has spent the past 16 years working in conjunction with several sovereign Nations and within the local, state, and federal levels of the U.S. government. His experiences have included working in conjunction with FEMA, the Emergency Management Accreditation Program (EMAP), the Foundation of Higher Education accreditation (FoHE), the Federal Law Enforcement Training Center --via the Rural Crime and Justice Center, the FBI---via a WMD Civil Support Team, the United States Marine Corps and with several states to include Minnesota, Indiana Wisconsin, and Florida.

Beyond Dr. Kemp's immediate academic and practical emergency management experience, Dr. Kemp enjoyed a distinguished military career. Dr. Kemp served in the U.S. Marine Corps (USMC) for 4 years and spent another 4 years in the Army National Guard (NG). While serving in the USMC, he was principally an antiterrorism and physical security specialist with the Marine Corps Security Force Battalion (Keflavik Iceland) and a Sergeant of combat Marines serving in the Infantry as a Combined Anti-Armor Team (CAAT) team leader for the 1st BLT/ 8th Marines. Dr. Kemp's service in the NG included completing tours as a Survey team leader with the 81st Civil Support Team – Weapons of Mass Destruction (81st CST-WMD) and serving as a Company Nuclear/Biological/Chemical officer with the 164th Engineer Battalion, North Dakota Army National Guard.

Highlights

- Dr. Kemp led a CI/KR project for 11 counties and 2 Native American Reservations in the State of Minnesota
- Dr. Kemp has participated in 7 disasters including the 2009 North Dakota Floods, 2004 Florida Hurricanes, and the 2004 Sumatra Tsunami
- Dr. Kemp is a certified Emergency Manager, a HAZMAT Incident Commander and completed over 50 specific training certifications
- Dr. Kemp is instrumental in creating and managing program curriculum as he has created several of the program courses and oversees the nation's largest emergency management student organization
- As well as being a practitioner, Dr. Kemp has extensive research experience concerning vulnerability, adaptation, and effective management strategies with relation to natural disasters

Education:	▪ PhD Emergency Management (North Dakota State University, 2010) ▪ M.S. Emergency Management (North Dakota State University, 2007) ▪ Graduate Certificate of College Teaching (North Dakota State University, 2007) ▪ M.S. Criminal Justice Administration (Minot State University 2006) ▪ B.S. Psychology (Minot State University 2001) ▪ B.S. Criminal Justice (Minot State University 2001)

CHAPTER 4- STUDY REFERENCE

A sample of a few of our most relevant projects is provided in the following pages:

Project Name	UASI Communities Served	Project Served a Client Similar to Miami-Dade	Methodology Design	Community Risk Assessments					Comprehensive Emergency Management				
									Mitigation				
				Natural Hazard Assessments	Man-Made Hazards	Impact Assessments	Critical Infrastructure / Key Resources	GIS Hazard Modeling & Analysis	Mitigation Planning	Cost-Benefit Analysis	Preparednesss	Response	Recovery
Hazard Risk and Vulnerability Modeling	x	x	x	x	x	x		x	x	x			x
Statewide Hazard Identification and Risk Assessment Model	x	x	x	x	x	x	x		x	x	x		
Statewide Target Capability and Capacity Assessment Tool	x	x	x				x				x	x	x
DHS CI/KR Inventory, Vulnerability & Risk Analysis Tool	x	x	x	x	x	x	x	x			x		x
North Carolina Statewide Flood Risk Mapping	x	x	x	x			x	x	x	x	x		
Community Threat and Hazad Identification and Risk Assessments													
Seminole Tribe of Florida All Hazard Comprehensive Risk Assessment and Mitigation Plan			x	x	x	x	x	x	x	x	x	x	x
Broward County Florida Hazard Mitigation Plan	x	x	x	x	x	x		x	x	x			
City of Savannah, Georgia Hazard Mitigation Plan		x	x	x	x	x		x	x	x			
Houston-Galveston Regional Hazard Mitigation Plan	x	x	x	x	x	x		x	x	x			
Galveston County, and Austin, Texas Regional Hazard Mitigation Plan	x	x	x	x	x	x		x	x	x			
City of Chicago All-Hazard Comprehensive Risk Assessment and Mitigation Plan	x	x	x		x	x	x	x	x	x	x	x	x
Over 25 Other Risk Assessment and Hazard Mitigation Plans	x	x	x	x	x	x	x	x	x	x			x
Critical Infrastructure & Key Resources Support	x	x	x	x	x	x		x	x	x			x
Departmetn of Interior - Infrastructure & Emergency Planning Support				x	x	x	x	x	x		x	x	x
Minnesota Critical Infrastructure & Key Resources Inventory and Assessment	x	x		x	x	x	x	x			x		
Disaster Impact Assessments	x	x	x	x	x	x		x	x	x			x
FEMA Public Assistance TAC - Infrastructure Recovery & Mitigation Support	x	x		x	x	x	x			x			x
Hurricanes (2004/2005 Florida, Katraina, Ike, Hugo, etc)	x	x		x		x	x			x			x
Tropical Storms (Allison, Isabell , etc)	x	x		x		x	x			x			x
September 11th, World Trade Center Attacks	x	x			x	x	x			x			x
2008 and 2010 Midwest Floods				x		x	x			x			x
California Severe Storms, Flooding, Debris Flows, and Mudslides				x		x	x			x			x
2003 California Wildfires	x	x		x		x	x			x			x
Over 50 Other Natural and Man-Made Disasters [1997 to Present]	x	x		x	x	x	x			x			x
FEMA: Hazard Mitigation Technical Assistance Program Support	x		x	x	x	x		x	x	x			x
FEMA HQ Program Coordination and Planning Technical Support Services	x		x	x	x	x		x	x		x		x
Hurricane Katrina ESF 14 Impact Assessment and Community Recovery	x	x		x		x							x
Hurricane Ike: Texas ESF 14 Impact Assessment and Community Recovery	x	x		x		x							x
Hurricane Charley: Florida ESF 14 Impact Assessment and Community Recovery				x		x							x
Tuscaloosa, AL Tornado - ESF 14 Impact Assessment and Community Recovery				x		x							x
Joplin, MO Tornado - ESF 14 Impact Assessment and Community Recovery				x		x							x
National Response Framework Evaluation Study			x								x		x
FEMA EMI: GIS Disaster Operations and Assessment Course			x	x	x	x	x	x	x		x	x	x
Hurricane Ivan Catastrophic Impact Housing and Shelter Support	x	x	x	x		x				x		x	
National Catastrophic Debris Management Planning & Training	x	x	x	x	x	x		x			x		x
Other Relevant Planning and Disaster Preparedness Projects	x	x	x	x	x	x		x	x	x			
Cook County, IL Comprehensive Emergency Health Preparedness & Planning Support	x	x		x	x	x	x		x		x	x	x
City of Chicago, IL Comprehensive Emegency Planning Support	x	x			x	x	x		x		x	x	x
DuPage County, IL "As Needed" Emergency Planning Support Services	x	x		x	x	x		x	x		x	x	x
St. Paul-Minneapolis, MN Emergency Preparedness & Management Support Services	x	x		x	x	x		x	x		x	x	x
Northern California Regional Emergency Maangement Plan	x	x							x		x	x	x

CONTRACT NAME: THREAT HAZARD IDENTIFICATION & RISK ASSESSMENT			
Client: **Miami-Dade Department of Emergency Management**			
Project Duration	**2011**	*Primary Contact:*	***Charles Cyrille 305.468.5426***
Total Project Cost	**$26,181**	*Project Location*	***Miami, FL***
Adherence to schedule and budget	**Yes**		

Methodology Design	Risk & Vulnerability Assessments	Compliance & Evaluation	Comprehensive Planning & Integration

ISC is currently developing a sophisticated Threat and Hazard Identification & Risk Assessment (THIRA) tool and report for Miami-Dade County. This tool will be used to assess the County's risks, and the full assessment will be conveyed in the report. The project consists of two distinct parts — identifying and assessing the County's hazards and threats and analyzing the County's existing vulnerabilities and capabilities. This comprehensive approach acknowledges disasters are not problems that can be viewed or solved as isolated instances. In other words, the rising number of disasters and the resulting damages and human losses are more or less symptoms of broader and more basic problems. Put simply, these problems stem from the complexity of disasters and the intricate relationships society shares with both its natural and constructed environments, which this project aims to capture and address. Upon completion of the project, Miami-Dade County will have a dynamic planning tool that will enable planners to better understand the consequences and impacts of disasters, and will also serve as a repository of information that can be used for other planning efforts and future analysis.

The primary use of the County's THIRA is to establish an accurate situational awareness of the County's risks to develop a consistent common operational picture to prepare, respond, recover, and mitigate Miami-Dade's hazards. The consequence that each hazard might have on the County is assessed according to a set of categories, such as capabilities, vulnerabilities, and existing conditions within the County. These categories allow for a comprehensive, yet more focused, view of Miami-Dade's risks and are supported by indicators and sub-indicators, such as socio-economic status, age, medical capacity, residential displacement, critical infrastructure, etc.

METHODOLOGY DESIGN

Research-Based Methodology: ISC utilized its experience and ongoing research with threat assessment and vulnerabilities analysis to tailor a methodology that offer an unbiased, comprehensive product that met the client's specifications.

RISK ASSESSMENT

Vulnerability Data Analysis: Vulnerability data was assessed to very specific indicators that included physical, socio-economic, and cultural sectors of vulnerabilities. Information about Miami-Dade County's vulnerabilities was obtained by reviewing County information and planning along with the latest set of Census data.

All-Hazard Analysis: To ensure a consistent framework, the County's THIRA is all hazards. Differences in the hazard's impact area, amount and severity of damage, duration of the event, and direct and indirect economic impacts make it difficult to develop empirical values that can be universally applied to each hazard category. Therefore, the risk methodology developed must consider not only the probability of the event occurring but also the potential physical, economic and social impact to the community.

COMPREHENSIVE PLANNING & PROGRAM INTEGRATION

Online Integration: Leveraging ISC Odysseus™ system, the THIRA was built out in an online planning system. Not only does this allow ease of access and better program development based on the THIRA, but it allows Miami-Dade to be able to tap into future refinements and upgrades of the THIRA methodology and process.

PROJECT ACCOLADE

- ✓ The completion of the THIRA represents one of the first all-hazard threat analyses that is comprehensively built to assess vulnerabilities beyond physical and economic community aspects.

CONTRACT NAME: REGIONAL CI/KR EVALUATION AND RISK ANALYSIS			
Client:	***South Florida Urban Area Security Initiative***		
Project Duration	**2012**	*Primary Contact:*	**Curt Summerhoff 305.468.5426**
Total Project Cost	**$38,385**	*Project Location*	***Miami, FL***
Adherence to schedule and budget	**Yes**		

Methodology Design	Risk & Vulnerability Assessments	Compliance & Evaluation	Comprehensive Planning & Integration

Over the past 100+ years, the South Florida Region has made a continuous investment in the development, construction and enhancement of CI/KR assets. These efforts have resulted in the urbanization of South Florida and the creation of a vital network of systems and assets that are significant not only to the state of Florida, but also to the nation. Furthermore, each year brings new concerns and an increasing probability of a significant terrorist attack, natural hazard, or manmade disaster occurring within the Region from such events as a terrorist attack or major hurricanes.

The purpose of this project was to develop a comprehensive CI/KR Assessment Strategy in order to: 1) provide an initial baseline inventory of CI/KR assets, associated vulnerabilities, and criticality throughout the South Florida Region, 2) develop a comprehensive and all-hazard methodology to evaluate the criticality, vulnerability, and hazard risk of CI/KR assets, 3) evaluate current data assets, identify areas of proficiency and improvement, and 4) establish a regional strategy to maintain and update CI/KR data repositories. The result of this effort was an asset-level analysis including a systematic process that integrated into established county and regional risk assessment methodologies, improving the reliability and accuracy of the findings and outputs.

METHODOLOGY DESIGN

UASI Program-Driven Results: Due to the lack of specific requirements for a CI/KR Risk Assessment, ISC needed to develop an acceptable methodology that provided results that furthered the UA/SI program given the availability of data and resources.

RISK ASSESSMENT

Infrastructure Sector Analysis: The risk assessment focused on the vulnerabilities specific to each sector of critical infrastructure and key resources. Available information was compiled to understand the value of infrastructure assets along with the potential dependencies tha

t exist within and throughout CI/KR sectors.

COMPREHENSIVE PLANNING & PROGRAM INTEGRATION

Program Recommendations: At the conclusion of the project, ISC presented Miami-Dade with a detailed report that recommended future program investments. This report detailed possible gaps with the current UA/SI program and offered positive solutions. Additionally, the report gave the UA/SI Planning Group the documented goals and objectives to increase the area's preparedness and increase the feasibility for larger grant money obligations.

CONTRACT NAME: STATE REGIONAL THREAT HAZARD IDENTIFICATION & RISK ASSESSMENT			
Client: ***Southeast Florida Region (on behalf of Miami-Dade)***			
Project Duration	***July 2012-December 2012***	*Primary Contact:*	***Charles Cyrille 305.468.5426***
Total Project Cost	**$30,000**	*Project Location(s)*	***SE Florida Region***
Adherence to schedule and budget	**Yes**		

Methodology Design	Risk & Vulnerability Assessments	Compliance and Evaluation	Comprehensive Planning & Integration

PROJECT DESCRIPTION

ISC recently developed a regional CI/KR Risk Analysis, which was followed by a second project engagement to develop a Southeast Florida. For the first engagement, the purpose of this project was to develop a comprehensive CI/KR Assessment Strategy in order to: 1) provide an initial baseline inventory of CI/KR assets, associated vulnerabilities, and criticality throughout the South Florida Region, 2) develop a comprehensive and all-hazard methodology to evaluate the criticality, vulnerability, and hazard risk of CI/KR assets, 3) evaluate current data assets, identify areas of proficiency and improvement, and 4) establish a regional strategy to maintain and update CI/KR data repositories. The result of this effort was an asset-level analysis including a systematic process that integrated into established county and regional risk assessment methodologies, improving the reliability and accuracy of the findings and outputs.

Recognizing ISC's expertise and innovative risk analysis technologies, Witt & Associates requested ISC to assist in the development of a regional methodology for conducting hazard risk assessments and to utilize ISC's proven Community Vulnerability, Risk and Resiliency (CVR2) technology to evaluate the hazard vulnerabilities and risks of Southeast Florida (SFL). The overarching objective of this project was to develop a comprehensive Threat and Hazard Identification, and Risk Assessment for the SF counties of Miami-Dade, Broward, Palm Beach, and Monroe that incorporated the latest science and technologies to provide a reliable, accurate, and valid all hazards risk and vulnerability assessment. The purpose of the Threat and Hazard Identification and Risk Assessment (THIRA) is to provide a more holistic understanding of SFL's risks and readiness to respond. Additionally, the THIRA will guide preparedness activities and investments serving as a roadmap to developing and/or enhancing capabilities.

The THIRA follows the process outlined in, and fully compliant with, the Federal Emergency Management Agency's Comprehensive Preparedness Guide 201, all related Department of Homeland Security guidance documents and current professional standards, including:

- Emergency Management Accreditation Program's Hazard Identification and Risk Analysis requirements;
- State of Florida's Comprehensive Emergency Management Planning guidance and requirements;
- State of Florida's THIRA Project (this project is in its infancy; however, the chosen vendor will need to speak with the Florida Division of Emergency Management to ensure compliance);
- Federal Emergency Management Agency's Comprehensive Preparedness Guide 101; and
- Methodology utilized in the Miami-Dade County THIRA.

- National Preparedness Goal and its identified Core Capabilities

CONTRACT NAME: FEMA Nationwide Hazard Mitigation Technical Assistance Program Support			
Client: US DHS: FEMA			
Project Duration	**2012-Present**	*Primary Contact:*	***Keri Boland Phone: 703-682-4909***
Total Project Cost	**$100 Million**	*Project Location(s)*	***Nationwide, ongoing***
Adherence to schedule and budget	**Yes**		

Methodology Design	Risk & Vulnerability Assessments	Compliance and Evaluation	Comprehensive Planning & Integration

PROJECT DESCRIPTION

Integrated Solutions Consulting (ISC) was recently awarded a 5-year contract to provide technical support to FEMA's Hazard Mitigation Program. ISC is able to leverage its institutional knowledge of these various programs in order to provide solutions that are compliant with programmatic and regulatory requirements and authority. ISC's cadre of professionals provides essential services, including, but not limited to, the following:

1) Impact Risk and Vulnerability Assessments
2) Preliminary Damage Assessments
3) Community Planning
4) All Hazard Mitigation Technical Assistance
5) Mitigation Policy Review, Guidance and Programmatic Assistance,
6) Training

CONTRACT NAME: URBAN AREA LOCAL AND REGIONAL THIRAs			
Client: **Minneapolis-St. Paul Urban Area**			
Project Duration	**April – July 2012**	*Primary Contact:*	***John Keenan 218.590.4934***
Adherence to schedule and budget	**Yes**	*Project Location(s)*	***St. Paul, MN***

Methodology Design	Risk & Vulnerability Assessments	Compliance and Evaluation	Comprehensive Planning & Integration

PROJECT DESCRIPTION

The objective of this project is to devise a method to systematically compare, assess, and evaluate the natural, technological, and political hazards that could potentially impact Region II and VI of the State of Minnesota. It is well recognized that the threat and hazard analysis and risk assessment forms the core foundation of a comprehensive emergency management program, as it defines a community's strategic common operational picture that establishes the basis for actions to mitigate, as well as prepare for, protect from, respond to, and recover from emergencies and disasters. The ISC team developed a consistent and scalable methodology, one that successfully analyzes the interaction between the unique characteristics of the community and its hazards and vulnerabilities. This approach will provide the Region with an enhanced understanding of the threats, hazards, and risks its faces, as well as a comprehensive common operational picture from which to address those risks. The overarching objective of this project is to also develop a region-specific strategic plan, which the THIRA will play a vital role.

CONTRACT NAME: REGIONAL TARGET CAPABILITY AND CI/KR ASSESSMENT PROGRAM SUPPORT			
Client: **Minnesota Homeland Security & Emergency Management**			
Project Duration	**2009-Present (In-progress)**	*Primary Contact:*	**John Keenan**
Adherence to schedule and budget	**Yes**	*Project Location*	**Minnesota**

Methodology Design	**Risk & Vulnerability Assessments**	**Compliance & Evaluation**	**Comprehensive Planning & Integration**

PROJECT DESCRIPTION

Minnesota's critical infrastructures are a heterogeneous and interdependent mix of facilities, systems, and functions that are vulnerable to a wide variety of threats. The sheer numbers and interconnected nature of Minnesota's critical infrastructure and key resources create an almost infinite array of high-value targets that are vulnerable to a multitude of hazards and span all sectors of the economy. While it is not possible to protect or eliminate the vulnerability of all critical infrastructure and key resources throughout the state, strategic improvements in security make it more difficult for attacks to succeed and reduce the potential impacts of disaster. Because of the importance Minnesota places on protecting key assets, ISC was awarded a multi-phase project to support Minnesota's critical infrastructure and key resource program.

Phase 1: The primary objective for phase 1 of this project was to perform a gap analysis, prioritize assets and collect asset data according to the 18 sectors of the National Infrastructure Protection Plan for an 11 county region and one of our nation's busiest ports, the Port city of Duluth, MN. In compliance with DHS' Protected Critical Infrastructure Information (PCII) program, ISC cataloged the Region's CIKR assets into the Federal Automated Critical Asset Management System (ACAMS). The secondary objective of this phase was to evaluate DHS' CIKR program relative to the principles of Comprehensive Emergency Management (CEM) and identify areas of improvement. This analysis was incorporated into a regionally specific level Critical Infrastructure Protection Strategy, which provided a situational assessment that strengthened the security and protection of the Region as well as identified strategies to enhance program efficiency.

Phase 2: This phase consisted of analyzing and delivering a complete CEM methodology to analyzing and assessing the all-hazard vulnerability of Minnesota's CIKR assets and regional capabilities and capacities to manage disasters and large-scale emergencies. The methodology designed was consistent with DHS's ACAMS and FEMA's HAZUS-MH modeling program, as well as compliant with Protected Critical Infrastructure Information (PCII) Act, DHS' Target Capabilities and interim implementing regulations (6 Code of Federal Regulations [CFR] Part 29 [the Interim Rule]). The methodology delivered a foundation for a Comprehensive Critical Infrastructure Protection Plan and Regional Capability Assessment and Evaluation that addressed the unique attributes of local and regional emergency management programs and risks to Minnesota's CIKR assets while conforming to National frameworks. The ultimate goal of Phase Two was to create a dynamic methodology that was easily transferable through the various regions of the state.

METHODOLOGY DESIGN

Target Capability Assessment Methodology: The methodology developed for the region provided a framework to evaluate the compliance and progress with DHS' Target Capabilities. The Target Capability, Assessment and Progress (T-CAP) tool is research-based, data-driven methodology that evaluates program achievements, capabilities and capacities, and identifies areas to improve efficiency, effectiveness and minimize expenditures.

CI/KR Vulnerability Index: The methodology allows for the sophisticated analysis of CIKR assets, their vulnerability to all hazards, and the development of community considerations that address the unique needs and interdependency of the County's specific assets. The methodological design of this index is compliant with the Department of Homeland Security's Critical Infrastructure and Key Resources program and Public Law 106-390, the Disaster Mitigation Act of 2000. The CI/KR Vulnerability Index serves as the foundation for future CI/KR assessments, updates, and investments in CI/KR resiliency initiatives and the mitigation planning process.

RISK ASSESSMENT

CIKR Risk Prioritization: ISC prioritized assets and collected asset data according to the 18 sectors of the National Infrastructure Protection Plan for an 11 county region and one of our nation's busiest ports

ACAMS Data Cataloging: ISC cataloged these CIKR assets in the federal Automated Critical Asset Management System (ACAMS) in compliance with DHS' Protected Critical Infrastructure Information (PCII) program.

Threat and Hazard Analysis Baseline: A threat and hazard analysis was conducted using the available CI/KR asset information. This analysis will evaluate specific threats to assets, overall risks, and capability gaps including multi-nodal disruptions.

Capability Assessment: The risk assessment process employed incorporates scientific and programmatic measurements to assess local and regional capacities to manage disaster and build resiliency. These measurements are based on the findings of the most contemporary research and DHS' 37 Target Capabilities.

COMPLIANCE AND EVALUATION

Comprehensive Critical Infrastructure Protection Assessment: ISC analyzed and delivered a complete CEM methodology for evaluating and assessing the all-hazard vulnerability of Minnesota's CIKR assets.

Critical Infrastructure Protection Strategy: ISC developed a Regional level Critical Infrastructure Protection Strategy, which provided a situational assessment that strengthened the security and protection of the Region as well as identified strategies to enhance program efficiency. The Critical Infrastructure Protection Strategy was developed to be transferable through the state's various Regions.

Comprehensive Critical Infrastructure Plan: The Comprehensive Critical Infrastructure Plan includes a policy, evaluation and planning process that assists in updating the Region's Plan as well as uses this strategy to guide DHS's required investment justifications and Minnesota's regional area resource allocations. The plan outlines how each goal supports National Preparedness Priorities and Target Capabilities as outlined by DHS, and how each goal supports implementation of the State of Minnesota CI/KR plan.

PROJECT ACCOLADE

- ✓ ISC was able to execute Phase 1 of this project on an expedited 5 month schedule in order ensure compliance with grant expectations and performance.
- ✓ ISC was able to exceed client and regulatory agency expectations. The outstanding work product and vision of ISC resulted in the Minnesota's investment in future phases of this project.
- ✓ The Project fulfilled all regulatory requirements as defined by Minnesota's Critical Infrastructure Protection Strategy, as well as conducted in accordance with the Protected Critical Infrastructure Information (PCII) Act and interim implementing regulations (6 Code of Federal Regulations [CFR] Part 29 [the Interim Rule]) and other pertinent regulations.

The accomplishments of this project have spurred interest not only with our client, but also with regional partners, FEMA, DHS, and the academic community

CONTRACT NAME: STATE-WIDE, ALL HAZARD RISK METHODOLOGY			
Client: **Indiana Department of Homeland Security & Emergency Management**			
Project Duration	**2009-2010**	*Primary Contact:*	***Carlos Garcia*** ***Phone: 317.274.1802***
Adherence to schedule and budget	**Yes**	*Project Location(s)*	***Indianapolis, IN***

Methodology Design	Risk & Vulnerability Assessments	Compliance and Evaluation	Comprehensive Planning & Integration

PROJECT DESCRIPTION

This interesting project offered a unique challenge that required ISC and a strategic academic partner to stretch the limits of our intuitiveness and creativity. The Indiana Department of Homeland Security (IDHS) was expanding the State's capabilities to effectively prepare for and respond to all-hazard incidents by developing and promoting a common Hazard Identification and Risk Assessment (HIRA) methodology. The common methodology provided a unified framework to classify, analyze and plan for vulnerabilities or threats that may have devastating physical, social, and financial impacts on Indiana communities. The purpose for the state to invest in such a model was twofold: 1) by providing counties with a tool to do risk assessment for their individual hazard mitigation plans, the counties would create uniform and acceptable risk assessments to the State's standard; and 2) counties that perhaps cannot afford to create mitigation plans could potentially save money on the risk assessment portion.

The scope included an analysis of all the possible indicators that could be used to measure and show the impact of a possible hazard on a community and to develop a conceptual draft version of the HIRA tool. It was critical to develop a comprehensive and unified HIRA that could be applied to governing entities possessing varying demographics, vulnerabilities, capabilities, and operational capacity. This was further challenged by the disparate regulatory and programmatic guidance posed by various governing bodies such as DHS and FEMA. Additionally, the model needed to allow for limited flexibility, so the user at the County-level could accurately and systematically integrate the vulnerabilities based on their first-hand knowledge of the critical assets in their communities.

METHODOLOGY DESIGN

Comprehensive Risk Methodology: The primary use of the HIRAM is to establish an accurate situational awareness of Indiana's risks to develop a consistent common operational picture to prepare, respond, recover, and mitigate Indiana's hazards. The impacts that each hazard might have on a county are assessed according to four broad vulnerability indicator categories: economic, sociological, physical, and areas of special concern. These categories allow for a comprehensive, yet more focused, view of Indiana's risks and are supported by indicators and sub-indicators, such as socio-economic status, age, medical capacity, residential displacement, et cetera.

Scalable and Flexible Methodology: The HIRA methodology was created with a flexible structure to provide the analyst with an adjustable framework to account for the unique needs of and between individual jurisdictions, while at the same time ensuring consistency in creating a common operational picture. This model will be important for

identifying operationally-based considerations that can be incorporated into other comprehensive emergency planning doctrines.

Consensus Building Applications: An important element of developing a unified methodology that can be applied throughout the state is dependent upon the ability to build consensus and social proof. ISC utilized cutting-edge consensus building techniques that embrace local knowledge with the necessary flexibility to ensure reliable and accurate results. This controlled subjectivity will provide the risk assessment methodology that is supported by a unified perspective systematically integrate the vulnerability assessments of local governments and critical assets.

RISK ASSESSMENT

Enhanced Comprehensive Planning Efforts and Operational Accuracy: The risk assessment methodology incorporates over 180 variables of community vulnerability and hazard risk impacts that are organized into four categories: economic impacts, social impacts, physical asset impacts, and special community concerns. The robustness of this methodology provides a framework for a thorough assessment that provides reliable planning considerations that can be incorporated into the community's comprehensive emergency management planning efforts.

All Hazards Focused Planning Considerations: The HIRA methodology provides analysts with an all-hazard, common operational picture that can be applied uniformly throughout the state and utilized by all levels of government. From this, the state and its partnering county and municipal jurisdictions can establish an accurate and reliable situational awareness of their community's vulnerabilities to all hazards.

Special Population and Community Needs Analysis: The HIRA Model operates by utilizing a number of input parameters to uniformly evaluate hazard risks and exposed social vulnerabilities to a community. The HIRA Model is consistent with FEMA's Comprehensive Preparedness Guide 301: Special Needs Planning and provides a consistent Common Operational Picture to prepare/prevent, respond, recover, and mitigate/protect for community and special population needs..

Critical Infrastructure and Key Resources Analysis: The HIRA Model operates by utilizing a number of input parameters to uniformly evaluate hazard risks and exposed vulnerabilities to critical community assets and key resources. The HIRA Model is consistent with DHS' CIKR and provides an accurate Situational Awareness of Indiana's risks and a consistent Common Operational Picture to prepare/prevent, respond, recover, and mitigate/protect.

COMPLIANCE AND EVALUATION

Align Federal Directives: Aligned competing DHS and FEMA strategies, allowing Indiana to successfully meet the influx of new federal directives, initiatives, and programs while saving its Counties money.

Operational Integration: The HIRA methodology streamlines and standardizes the analysis of risk for all-hazards assessments for the entire state. This will increase the value and quality for hazard mitigation plans across the state and ease the burden of local emergency managers.

COMPREHENSIVE PLANNING & PROGRAM INTEGRATION

Comprehensive Emergency Planning: The model will analyze possible hazards highlighting planning considerations and impacts of a hazard specific to societal, economic, and physical factors beyond those of cost, damage, and casualties.

PROJECT ACCOLADE

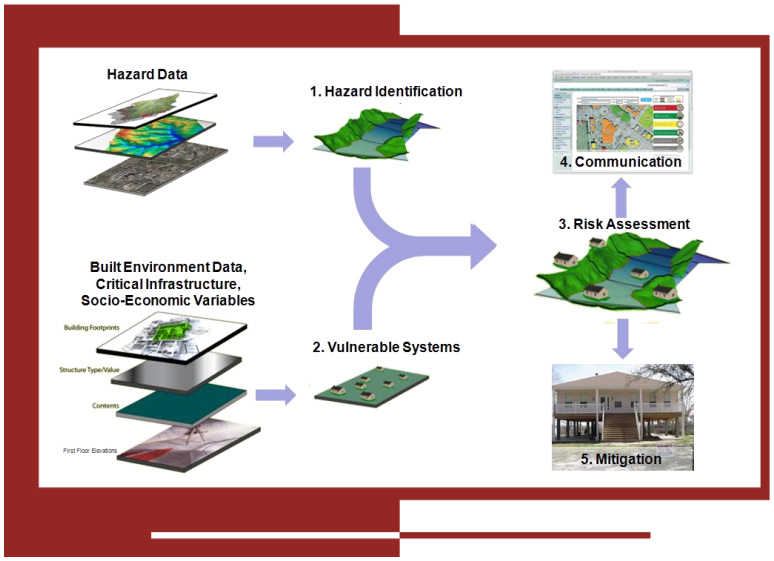
- ✓ Received accolade from client for ISC's advanced emergency management expertise and ability to develop an industry-leading comprehensive model to analyze hazards with a detail never achieved and incorporating and correlating complex planning considerations and hazard impacts specific to societal, economic, and physical factors.

CONTRACT NAME: STATEWIDE RISK MAP CONTRACT			
Client: **North Carolina Office of Emergency Management**			
Project Duration	**2011 - 2013**	*Primary Contact:*	**Perry Rhodes**
Adherence to schedule and budget	**Yes**	*Project Location*	***North Carolina***

Methodology Design	**Risk & Vulnerability Assessments**	**Compliance & Evaluation**	**Comprehensive Planning & Integration**

PROJECT DESCRIPTION

ISC, through its cooperative partner AECOM, provides support to the State's ongoing program to acquire, generate, maintain, update and disseminate data, analyses, and work products associated with the identification, vulnerability exposure, risk assessment, and mitigation of all hazards in North Carolina. The data acquisition, analyses, mapping, and mitigation planning will assist North Caroline Office of Emergency Management to generate risk analyses, reports and maps associated with riverine flooding, coastal flooding, storm surge, dam inundation, levee inundation, debris flow and other natural, technological, and political hazards.



The State of North Carolina, through the Federal Emergency Management Agency's (FEMA's) Cooperating Technical Partners program, has been designated as a Cooperating Technical State (CTS), and has therefore assumed primary ownership and responsibility to acquire, generate, maintain, update and disseminate data, analyses, and maps associated with the identification, risk assessment, and mitigation of all hazards in North Carolina. ISC and its cooperating partner includes the following components: (1) acquiring, processing, and maintaining detailed, accurate spatial data, (such as building footprints, elevation data, digital orthophotography); (2) conducting water / flood and/or other natural and man-made hazard analyses; (3) generating and updating risk assessments and mitigation analysis models, data, maps and reports; and (4) expanding the hazard risk visualization and communication capabilities of the GTMO-NCFMP during peace time and disaster incident command

METHODOLOGY DESIGN

GIS and Spatial Analysis: The North Carolina Risk Management Program encourages the acquisition, processing and integration of remote sensing data and the development of high-resolution imagery data for hazard risk modeling and mapping.

RISK ASSESSMENT

Vulnerability Data Analysis: The State Risk Management Program requires the acquisition and/or generation of high-resolution vulnerability data necessary to determine consequences for individual structures, systems, and population. Examples of data include, but are not limited to: building footprints, critical infrastructure, dams and levees, community information, population demography, first floor elevations.

Hazard Analysis: ISC will be responsible for developing and updating data and the automated analysis of models associated with coastal and riverine flooding, dam and levee failures, coastal erosion, see level rise, debris flow, flood inundation, landslides, hurricane and straight line wind events, and wildfires.

Hazard Modeling: ISC will be responsible for generating and updating risk assessments and mitigation analysis models for forecasting direct and indirect impacts and disaster loss and mitigation alternatives.

Risk Assessment Statewide Clearinghouse: ISC will support the development of a risk assessment "gateway" and clearinghouse for the purpose of displaying / providing – water and coupled hazards; vulnerabilities; calculated risk assessments; risk reduction options; clearinghouse of methodologies associated with hazards identification, damage assessment, risk assessment, and risk reduction.

COMPREHENSIVE PLANNING & PROGRAM INTEGRATION

Emergency Response & Outreach Tools: ISC's cooperating partner, AECOM, developed a disaster preparedness and response extension for NCFMP in ArcGIS called Hazards Analyst where a predicted event such as a hurricane or ice storm is analyzed to calculate response needs based on multiple layers of base data, including census information. AECOM has also developed a tool to help facilitate North Carolina Emergency Management's community outreach activities, which is called NC CIS (North Carolina Community Information System).

North Carolina Flood Inundation Mapping & Alert Network (NCFIMAN): The NCFIMAN is designed to provide real-time or near real-time inundation maps during flooding events at selected stream gage locations throughout NC. NCFIMAN utilizes libraries of inundation maps that correspond to incremental values of river stage at stream gages located in areas vulnerable to flood damage. The NCFIMAN leverages hydraulic models and digital terrain data to provide emergency managers and the public with more timely, detailed, and accurate maps and information regarding forecasted and actual flood inundation.

PROJECT ACCOLADE

- ✓ To enhance the competitive value and services provided to North Carolina, AECOM requested for ISC to serve as a subcontractor for the recomplete of the North Carolina Statewide Risk Map Contract. ISC's unique skill set and reputation expanded the capabilities of AECOM and resulted in the expedited evaluation and award of this contract.

CHAPTER 5- FEE SCHEDULE

The estimated cost for this project will be **$33,000.00**. We welcome the opportunity to establish a collaborative working relationship with the Montecito Fire Protection District. The Project Pricing estimate provided is as a Lump Sum (Not to Exceed) fee for each task of the work described in the Scope of Work. . ISC's hourly rate replicates a reasonable salary similar to that of a public employee plus benefits and the associated expenses of self-employment (i.e. overhead).

The title and number of ISC personnel assigned to a task will be dependent upon the unique nature of the task itself. With due regard to the unique needs of our clients, ISC always provides a team that can technically and tactically complete the task order in the most efficient and effective manner.

While ISC does not charge its hourly rate during the time spent traveling, ISC does require that regular costs associated with official travel be reimbursed according to the appropriate Government Service Administrations 2013 per diem schedule.

Task	Estimated Hours	ISC Blended Rate	Total
Task 1: Organize Resources	40	$165.00	$6,600.00
Task 2: Assess Risks/GIS Analysis	100	$165.00	$16,500.00
Task 3: Mitigation Recommendations	60	$165.00	$9,900.00
Project Total	**$33,000.00**		

About Integrated Solutions Consulting

ISC is a NAICS defined small business focused on developing and implementing comprehensive crisis and consequence management solutions. We are recognized as innovative problem solvers, dedicated to the profession of emergency management, and proficient in the disciplines that support it.

Our Principles

Comprehensive All-Hazard Solutions

Continual Innovation

Client-focused Results

Research-Based Best Practices

INTEGRATED SOLUTIONS CONSULTING

WWW.I-S-CONSULTING.COM

3104 Poplar Ct.
Edwardsville, IL 62025

T: 877.437.4271
F: 877.684.0557

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TETRA TECH

May 31, 2013

Montecito Fire Protection District
Attention: Chief Chip Hickman
595 San Ysidro Rd.
Santa Barbara, CA 93108

Subject: RFQ – COMPREHENSIVE COMMUNITY RISK ANALYSIS STUDY

Dear Mr. Hickman,

Tetra Tech, Inc. (Tetra Tech) has prepared the enclosed Statement of Qualifications in response to the Request for Statement of Qualifications (RFQ) to Provide a Comprehensive Community Risk Analysis Study.

Upon award of the contract, Tetra Tech is available to immediately begin the work. Any questions on this submittal should be directed to me at:

Michelle Bates
Principal Scientist
5383 Hollister Ave., Suite 130
Santa Barbara, CA 93111
Telephone: 805-895-2054
FAX: 805-681-3108
Email: michelle.bates@tetratech.com

I have the authority to bind Tetra Tech to provide the proposed services.

Tetra Tech appreciates the opportunity to work with the Montecito Fire Protection District.

Sincerely,

TETRA TECH, INC.

Michelle Bates
Principal Scientist

cc: Amy Noddings (Tetra Tech)
Rob Flaner (Tetra Tech)

RFQ – Comprehensive Community Risk Analysis Study for the Montecito Fire Protection District

May 31, 2013

Submitted to:

Montecito Fire Protection District
Attention: Chief Chip Hickman
595 San Ysidro Rd.
Santa Barbara, CA 93108

Prepared by:

Tetra Tech, Inc.
5383 Hollister Ave, Suite 130
Santa Barbara, California 93111

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SECTION 1 BACKGROUND INFORMATION

1.1 Introduction

Tetra Tech, Inc. (Tetra Tech) is a full-service environmental and engineering Corporation with a local office in Santa Barbara, California. Tetra Tech was founded in 1966 and currently has over 20 offices and 2,000 staff in California. The Santa Barbara office is the lead office for this Statement of Qualifications. Tetra Tech is headquartered in Pasadena, California (3475 E. Foothill Blvd., Pasadena, CA 91107). Table 1 provides the addresses of key offices with staff that will support this project. Any correspondence regarding this SOQ should be directed to Michelle Bates.

Table 1: Key Office Locations

Lead Office	Supporting Office
Contact: Michelle Bates 5383 Hollister Ave. Suite 130, Santa Barbara, CA 93111 Telephone: 805-895-2054 FAX: 805-681-3108 Email: michelle.bates@tetratech.com	Contact: Rob Flaner 90 South Blackwood Ave. Eagle, Idaho 83616 Telephone: 208-939-4391 FAX: 208-939-4402 Email: rob.flaner@tetratech.com

1.2 Description of Scope of Services

Tetra Tech offers the local knowledge and high quality services required for this project. Tetra Tech has been on the cutting edge of risk analysis, capability assessment, and hazard mitigation planning (HMP) efforts pursuant to the Disaster Mitigation Act of 2000 (Public Law 106-390) since its inception. Tetra Tech is recognized nationally for its subject matter expertise in the field of HMP pursuant to the Federal legislation. Collectively, the experience our team has gained from our many engagements has allowed us to stay on the forefront of developing and delivering innovative approaches and solutions to our client's challenges in the scope of work areas. While the scope of work being requested by this SOQ is not explicitly asking for a DMA approved mitigation plan for the district, it is clearly asking for key components of an approvable hazard mitigation plan, namely the risk assessment and review of mitigation alternatives. Tetra Tech's deep portfolio of experience in hazard mitigation planning gives our team the highest degree of capability to not only meet, but exceed the district's expectations for this project.

Our standard approach to mitigation planning is centered upon the key element of this project, the risk assessment. We like to refer to the risk assessment as the "hub of the wheel" to any mitigation plan. The all hazard risk assessment is the undeniable strength of our proposed team. Utilizing GIS based tools, such as FEMA's Hazus-MH risk assessment tool, we strive to develop a risk assessment that enhances the capabilities of a jurisdiction by leaving them with a fully developed model of the risk associated with the hazards of concern for a planning effort. For the past several years, Tetra Tech has served as a mission support contractor for FEMA's advancement of the Hazards U.S. Multi-Hazard (HAZUS-MH) software tool for conducting risk assessments. Tetra Tech quite literally wrote the book ("Using HAZUS-MH for Risk Assessment" FEMA-433). Tetra Tech is a FEMA-certified HAZUS-MH Vendor, which means we can certify local governments as official HAZUS users and develop custom training programs. HAZUS is a tool with the unique capability to support all phases of emergency management. This tool will be constructed during this process and handed off to the District upon completion.

Hazus contains modules for 3 of the 7 hazards of concern identified in the RFQ (flood, Tsunami and earthquake). For the other hazards of concern, our team has experience in modeling like hazards utilizing

GIS applications that model the outputs of Hazus. This allows our risk assessments to be consistent for all hazards, making it easier to analyze the data and compare the risk between hazards.

Another key component of this project involves the ranking of risk between the hazards of concern and the identification of suitable risk mitigation measures. Once again, these are standard products for all of our hazard mitigation planning efforts. Tetra Tech's standard risk ranking approach for mitigation planning is unique in that it strives to quantify the impacts of each hazard quantitatively using the results of the risk assessment. This is a different approach from our competitors who tend to use more subjective, qualitative approaches. We can utilize this approach due to the accuracy and detail of our risk assessments. Utilizing the Hazus level 2 user defined protocol allows us to generate loss results at the building or facility level, rather than a census block or tract level. This allows us to rank risk by comparing apples to apples, instead of apples to oranges. Our risk ranking approach quantifies the impacts on people, property and economy in terms of numeric dollar loss values. Each of the impacts is weighted, with the highest impact being people. Each hazard gets a numeric score that allows you to easily compare to the score from another hazard. This approach to risk ranking has been well received by our clients as well as CalEMA and FEMA during their plan reviews (to see an example of this approach visit: http://www.co.contra-costa.ca.us/DocumentCenter/Home/View/6024).

The final aspect of this scope of work would be the review of mitigation alternatives. Once again, this is a standard product of all our mitigation planning efforts. In fact, it is a statutory requirement of the Disaster Mitigation Act. Mitigation plans must consider a comprehensive range of alternatives for each action identified. This concept of "alternatives analysis" is a key component of our process and is built upon looking at the strengths, weaknesses, obstacles, and opportunities within a planning area. A key output from this process is a mitigation catalog that lists alternatives by hazard and bay scale of implementation. This gives a jurisdiction the tool to illustrate the comprehensive range of alternatives, while at the same time identifying actions that are within the jurisdiction's capability.

1.3 Pending Litigation

Tetra Tech, Inc. is subject to certain claims and lawsuits typically filed against the engineering and consulting professions, primarily alleging professional errors or omissions. Tetra Tech carries professional liability insurance, subject to certain deductibles and policy limits against such claims. Tetra Tech believes that the resolution of these claims will not have a material effect on our financial position or results of operations.

1.4 Conflict of Interest

There is no conflict of interest with Tetra Tech working on this project for the Montecito Fire Protection District (MFPD). In addition, Tetra Tech senior personnel are required to take ethics training each year and are well trained on the procedures to follow if a real or perceived conflict of interest occurs.

SECTION 2 GENERAL QUALIFICATIONS

2.1 Qualifications, Experience, and Capabilities with Similar Studies

Tetra Tech has completed single- and multi-jurisdictional HMP projects for a broad range of clients and environments, from highly urbanized to predominantly rural, from coastal plains to mountainous watersheds, from cities with vast staffs and resources to villages having few, shared resources. We have prepared or updated local hazard mitigation plan (LHMP) covering more than 1,000 participating jurisdictions nationwide. Many of these projects have direct relevance to this MFPD scope of work,

because they involve working directly with Fire Districts. Most of our multi-jurisdictional planning efforts include the participation of local Fire Districts. In fact, every one of our California planning efforts includes multiple fire districts. We have found that Fire Districts are key stakeholders in the planning efforts. Each one of these projects has refined tools and templates that work in any environment. Table 2 identifies HMP efforts performed by the proposed Tetra Tech team members that will be engaged for the MFPD project.

Table 2: Relevant Recent Team Hazard Mitigation Planning Experience

FEMA Region	State	Jurisdiction(s)
II	New Jersey	• Counties of Hudson, Somerset, Cape May • Township of Little Falls (Passaic County)
	New York	• Counties of Broome, Chenango, Cortland, Delaware, Fulton, Greene, Montgomery, Onondaga, Saratoga, Suffolk, Tioga, Tompkins • Cities of New Rochelle and Port Jervis • Towns of Cortlandt, Clay, East Fishkill, (Unincorporated) Greenburgh, New Castle • Villages of Ardsley, Briarcliff Manor, Dobbs Ferry, Elmsford, Hastings-on-Hudson, Irvington, Tarrytown, Scarsdale
	Puerto Rico	• Rincón, Utuado
III	Pennsylvania	• Counties of Lehigh and Northampton
VIII	Colorado	• Adams County, Lake County
	Montana	• Montana State • Montana University System HMPs (8 campus plans) • Counties of Blaine, Butte-Silver Bow, Daniels, Golden Valley, Hill, Judith Basin, Musselshell, Philips, Roosevelt, Sheridan, Valley, Wheatland • Fort Belknap, Fort Peck, Rocky Boy, and Blackfeet Reservations (Tribal Plans)
IX	California	• Counties of Contra Costa, Del Norte, Humboldt, Tehama, and Siskiyou • City of Roseville • Tribal Plan for Yurok Tribe (State-Level Standard Plan)
X	Idaho	• Counties of Ada, Bonner, and Gem
	Oregon	• City of Portland
	Washington	• Washington State (Enhanced Hazard Mitigation Plan)* • Counties of Grant, King, Kittitas, Pierce, Snohomish, Spokane, and Whitman • Cities of Goldbar, North Bend, Pacific, Sultan, and Snoqualmie • Tribal Plans for Hoh Tribe and Makah Nation

Tetra Tech offers complete hazard mitigation planning support services to our clients. Not only do we specialize in developing mitigation plans and updates compliant with the Disaster Mitigation Act (DMA) of 2000, but we also provide additional services directly associated with hazard mitigation. For example, Tetra Tech has completed benefit-cost analyses (BCA) and provided Federal Emergency Management Agency (FEMA) Hazard Mitigation Assistance (HMA) grant support for municipalities throughout the country wishing to secure funding to implement mitigation actions identified within their LHMPs. Tetra Tech also provides technical guidance and assistance to communities entering or seeking to achieve higher ratings within the NFIP CRS program. For more than 8 years, we have served as a mission

support contractor for FEMA's advancement of HAZUS the preferred software solution used to conduct risk assessments as part of HMP projects.

SECTION 3 SPECIFIC QUALIFICATIONS

3.1 Lead Staff & Resources, Roles, and Responsibilities of the Team

Tetra Tech's team is comprised of key leaders and support personnel with the credentials needed to provide the technical support being sought by MFPD. All team members are employees of Tetra Tech; we will not be using any subcontractors on this project. Our team experience working within the State of California will provide continuity and leadership assuring a smooth and efficient planning process. Our experience working directly with FEMA Region IX at a programmatic level ensures familiarity with the technical and regulatory requirements to shepherd a planning effort. Our experience completing 8 multi- and single-jurisdiction plans in California provide us with a great deal of subject-matter expertise relevant to California. In addition, the proposed technical lead for this assignment was the lead project planner for all of these California planning efforts, which gives us a head start on the management plan for this project. The key personnel identified to perform the proposed scope of work are listed in Table 3. Tetra Tech has a team of highly experienced staff. The average years of experience of the key staff is 17 years. All of the personnel referenced below are available for this project and can be utilized at the percent indicated. Full resumes for key personnel are provided in Appendix A. The key senior staff will be supported by various junior staff.

Table 3: Key Staff

Staff	Role in Project	Years of Experience	Current Availability
Rob Flaner	Study Manager/Junior Program Manager/Technical Lead	23	75%
Ed Whitford	Risk Assessment/Senior Geospatial Analyst/ HAZUS Team Leader	12	75%
Michelle Bates	Senior Quality Assurance Analyst	14	25%
Amy Noddings	Intermediate Project Manager	5	50%
Jon Raser	Senior Risk Management Specialist	20	50%
Alison Miskiman	Senior Geospatial Analyst/Hazard Mitigation Specialist	10	50%
Dan Portman	Intermediate Communications Strategy Analyst/Lead Technical Editor	33	25%

Rob Flaner, Study Manager/Technical Lead, **Certified Floodplain Manager (CFM),** will be responsible for planning and executing all tasks through to the project's completion. Mr. Flaner will manage the multidisciplinary project team and will serve as the Lead Project Planner for this project to ensure plan compliance with FEMA requirements. Mr. Flaner has 22 years of experience in floodplain management as well as hazard mitigation through FEMA programs. He developed a comprehensive background in all aspects of floodplain management administering the Community Rating System (CRS) under contract with FEMA. Mr. Flaner was responsible for implementing the CRS program in nine western states covering three FEMA Regional offices, including FEMA Region IX. He was able to take this vast experience and apply this knowledge to planning for the impacts of natural hazards in response to federal mandates under the Disaster Mitigation Act of 2000 (DMA). Mr. Flaner is very familiar with the federal requirements of the DMA, and has been trained and certified by FEMA as a Disaster Assistance Employee (DAE) to review hazard mitigations plans for DMA compliance. He has an

extensive resume of hazard mitigation projects that he has managed including the following California planning efforts: City of Roseville, Contra Costa County, Humboldt County, Del Norte County, Siskiyou County, and Tehama County. He has also developed expertise in the development of hazard mitigation grant applications under the five FEMA Hazard Mitigation Grant programs. Mr. Flaner has been utilized by FEMA as a beta tester for the benefit-cost analysis re-engineering (BCAR) model prior to its deployment in 2009. He has personally completed over 30 hazard mitigation grant applications as well as over 500 benefit-cost analyses that have resulted in Tetra Tech clients receiving in excess of $10 million in grant funding. As the Study manager and technical lead for this project, Mr. Flaner will be responsible for and involved in the completion of 100 percent of the scope of work and his duties will include:

- Lead project planner
- Formulating the work plan
- Facilitating the work process
- Assigning tasks
- Providing BCA training
- Coordinating with county designated staff
- Drafting the plan
- Performing crosswalk of draft plan prior to submittal to California Emergency Management Agency (CalEMA)/FEMA

Ed Whitford, Risk Assessment/Senior Geospatial Analyst/HAZUS Team Leader, CFM, is our team's Senior Geospatial Analyst and will be the lead for the Risk Assessment, including compiling relevant GIS layers and profiling hazards in HAZUS-MH. Mr. Whitford is an advanced user of HAZUS for risk assessments, estimating losses for earthquake and flood events. He brings exceptional cartographic skills, as demonstrated by his publication of two maps in the ESRI Map Book (Volume 20) and his award for outstanding cartographic production in a Hewlett Packard international competition. His specialty is in distilling tabular data generated in HAZUS-MH to meaningful information for local hazard mitigation plans. Mr. Whitford is a FEMA-certified "Practitioner" for all applications of HAZUS and his expertise in risk modeling excellence was recognized in 2011 by FEMA when he was named "HAZUS User of the Year." His work will be regularly seen during the planning process through the maps and graphs used to visually depict model results at planning committee meetings and at public workshops. Mr. Whitford will regularly interact with County GIS (as well as other) staff and will report directly to the Technical Lead, Rob Flaner.

Michelle Bates, Senior Quality Assurance Analyst, will serve as the Quality Assurance/Quality Control reviewer for this project. Ms. Bates is responsible for managing a team of biologists and planners in the Santa Barbara office. Ms. Bates has substantial project management experience with over 14 years of experience in planning and natural resources management. Ms. Bates is the Program Manager for Tetra Tech's existing Environmental Conservation Support Services Contract at Vandenberg AFB. Ms. Bates has been involved in each of the 25 task orders awarded to date. She has a diversity of responsibilities under this contract, including technical lead, Project Manager, and quality assurance/quality control (QA/QC) reviewer for various task orders. Ms. Bates managed the update to the Wildland Fire and Fuels Management Plan (WFFMP) on Vandenberg AFB. For this project, a 10-year plan was developed, which selected 10 projects for implementation over the next 10 years. The project required coordination with various departments on base, including base fire personnel. The project resulted in a WFFMP that incorporates natural resources concerns with fire management priorities. Detailed analysis was also conducted using base GIS data. Ms. Bates has extensive experience managing conservation projects. Ms. Bates managed the Burned Area Emergency Response project for the Highway Incident Fire on Vandenberg AFB. The project required the assessment and mapping of invasive plant species, on-going treatment of invasive plant species, completion of surveys and monitoring for special-status species, botanical sampling (relevé sampling), completion of a hydrogeological analysis, installation and

monitoring of erosion and sediment controls, rain event monitoring, and reporting. Ms. Bates will perform quality control reviews throughout the completion of this project.

Amy Noddings, Intermediate Project Manager, will manage all aspects of the project, including the on-time submittal of deliverables within the project budget. Ms. Noddings is a project manager with over 5 years of experience. Ms. Noddings has managed a number of task orders for Vandenberg AFB and Marine Corps Air Station (MCAS) Miramar. She is currently managing the completion of a Vegetation Mapping project at MCAS Miramar and a Prescribed Burn Pilot Study at Vandenberg AFB. Ms. Noddings has led and conducted general biological and botanical field surveys and authored a variety of documents including rare plant reports, general biological study reports, wetlands delineations, EAs, Mitigated Negative Declarations, and Environmental Impact Reports. The Burned Area Emergency Response project for the Highway Incident Fire on Vandenberg AFB required the assessment and mapping of invasive plant species, on-going treatment of invasive plant species, completion of surveys and monitoring for special-status species, botanical sampling, completion of a hydrogeological analysis, installation and monitoring of erosion and sediment controls, rain event monitoring, and reporting. Ms. Noddings contributed to all aspects of the project. Ms. Noddings authored the update to the WFFMP on Vandenberg AFB. Ms. Noddings attended interdisciplinary meetings, performed a field verification of fuels on Base, and researched fire ecology, vegetation types for fuels management, and fuel models. The project resulted in a WFFMP that incorporates natural resources concerns with fire management priorities. Detailed analysis was also conducted using base GIS data.

Jon Raser, Senior Risk Management Specialist, has over 20 years of experience in environmental and risk assessment/hazard mitigation project management. Since 2003, Mr. Raser has managed over 24 single- and multi-jurisdictional local hazard mitigation planning projects throughout New York, New Jersey and Puerto Rico (FEMA Region II), as well as projects in FEMA Region III and VI. Mr. Raser and his staff supports numerous counties and jurisdictions with plan implementation from annual plan review, grant application support, continued public and stakeholder outreach, to plan updating. He has FEMA training on Benefit-Cost Analysis (BCA) for mitigation projects, and has prepared and submitted BCAs and grant applications under the Unified Hazard Mitigation Assistance programs (PDM, RFC, SRL, HMA) and state HMGP. Mr. Raser chairs the Community Rating System (CRS) subcommittee of the New Jersey chapter of the Association of State Floodplain Managers (ASFPM).

Alison Miskiman, Senior Geospatial Analyst/CFM-Hazard Mitigation Specialist, supports LHMP projects regulated under DMA as the lead risk assessor conducting vulnerability assessments for earthquake, flood, and hurricane hazards using FEMA's Hazards U.S. – Multi-Hazard (HAZUS-MH) GIS extension. She has supported projects for areas throughout California, Washington, Idaho, New York, and New Jersey performing duties including writing grant applications and conducting benefit-cost analyses utilizing FEMA's BCA module. Ms. Miskiman has conducted benefit-cost analyses for municipalities in New Jersey, New York, and Idaho seeking Hazard Mitigation Assistance funding using FEMA's BCA version 4.5.5 Benefit Cost Analysis software. Her benefit-cost analyses were used to support applications for funding for project types including acquisitions, structural elevations, stormwater drainage improvements, bulkheading and tide-check valve projects, rock revetment/bank stabilization projects, and pumping stations. In addition, Ms. Miskiman has prepared Pre-Disaster Mitigation-Competitive (PDM), Flood Mitigation Assistance (FMA), and Severe Repetitive Loss (SRL) grant applications in E-Grants and New Jersey Hazard Mitigation Grant Program (HMGP) applications.

Mr. Dan Portman, Intermediate Communications Strategy Analyst, has more than 20 years of experience as a technical editor and illustrator at Tetra Tech and 33 years of total experience. His strong report editing and production skills for hazard mitigation plans pursuant to the DMA have been used to refine and develop over 12 plans over the past 5 years. Mr. Portman's role on this project will be to technically edit and format the plan document. He will report directly to Rob Flaner.

SECTION 4 STUDY REFERENCES

4.1 Project 1

Name	Contra Costa County Hazard Mitigation Plan-Update
Owner	Contra Costa County Department of Public Works
Contact	Rich Lierly, Senior Engineer, 50 Glacier Dr., Martinez CA, 94553, (925) 313-2348, rlier@pw.cccounty.us
Planned/Actual Dates	December 2009 to February 2012
Budget	$180,000
Website	http://www.co.contra-costa.ca.us/index.aspx?NID=2302

Project Description: Tetra Tech facilitated a comprehensive update to the hazard mitigation plan of record for Contra Costa County, California, and 38 local governments within the county, including 5 Fire Districts. The county and numerous local governments within the county were covered under a regional plan created by the Association of Bay Area Governments (ABAG). Recognizing the numerous short comings of a large regional planning effort, Contra Costa County sought to create a countywide plan through the update process that would better suit the needs and capabilities of the county and its planning partners.

Tetra Tech was selected to facilitate this process based on our extensive experience with complex multi-jurisdictional planning efforts. Of upmost importance was the need to address a gap in the ABAG plan, which was inclusive of special-purpose districts within the planning area. This planning effort includes over 30 special-purpose district planning partners that are the owners, operators, or proprietors of identified critical facilities within the planning area. This plan update process has totally repackaged the hazard mitigation plan for the county and has been built upon a comprehensive risk assessment of seven identified hazards of concern using the best available data and technology.

4.2 Project 2

Name	The Humboldt County Operational Area Hazard Mitigation Plan
Owner	Humboldt County Community Development
Contact	Cybelle Immitt, Senior Planner, 1106 Second Street, Eureka, CA 95501, (707) 268-3736, cimmitt@co.humboldt.ca.us
Planned/Actual Dates	June 2006 to December 2007
Budget	$100,000
Website	http://co.humboldt.ca.us/planning/HazardMitigation/default.asp

Project Description: As a sub-consultant to Humboldt County's contractor, Tetra Tech's services were retained to facilitate the development of the Multi-jurisdictional, Natural Hazards Mitigation Plan for Humboldt County, CA and 21 planning partners, including 5 fire protection districts and the cities of Eureka (population 42,233), Arcata (population 16,651) and Fortuna (population 11,250). This was the initial hazard mitigation plan for the Humboldt County

"I am happy to say that FEMA has reviewed our local hazard mitigation plan and will be sending out an approval letter today. I spoke to the FEMA reviewer this morning and she told me that it was one of the best plans she has had "the pleasure of reviewing". They are not asking for any changes to the plan and they made a special phone call to congratulate us for a job well done. So, I am passing the kudos on to the entire team"
Cybelle Immitt, Sr. Planner, Humboldt County

operational area. This plan addressed dam failure, drought, and earthquake, fishing losses, flood, landslide, severe weather, tsunami, and wildfire. A unique aspect to this plan was the involvement of the eight tribes within the county. While not actual planning partners, these tribes were vital stakeholders in the planning process. This effort also involved project development where FEMA grant eligible projects were identified, scoped, and targeted for specific FEMA hazard mitigation grants. This plan was well received by the planning partnership as well as the citizens of Humboldt County and received first pass approval by both the state and FEMA on January 12, 2008. ***Tetra Tech was awarded the contract to perform the 5-year update to this plan in October 2012.***

4.3 Project 3

Name	The Ada County Hazard Mitigation Plan	
Owner	Ada City-County Emergency Management	ACCEM Ada City-County Emergency Management
Contact	Paul Marusich, Public Education/Mitigation Specialist, 7200 Barrister Dr., Boise ID 83704-9293, (208) 577-4750, pmarusich@adaweb.net	
Planned/Actual Dates	September 2009 to December 2011	
Budget	$144,000	
Website	http://www.accem.org/hmpu.html	

Project Description: Tetra Tech was selected by Ada City-County Emergency Management (ACCEM) to perform a comprehensive update to the Ada County All Hazards Mitigation Plan. This planning effort culminated in a total restructuring of the initial plan that involved expanding the coverage of the plan from 6 to 21 eligible local governments within the Ada County planning area, including 7 fire protection districts. A key element in this planning effort was a comprehensive risk assessment of 8 identified hazards of concern. Hazus-MH was used to assess the risk to dam failure, earthquake, and flood hazards. This was a level 2 analysis of over 37,000 user defined facilities. A highly accurate digital elevation model (DEM) of the planning area was prepared by Tetra Tech using available Green LIDAR provided by the County. The plan identified and prioritized over 200 risk reduction actions to be implemented by the 21 planning partners. A key component the evolved out of this project was the actual development of project application for various FEMA Hazard Mitigation Assistance (HMA) programs that were open for application during the planning process. This created an excellent opportunity for the Tetra Tech team to provide additions training during the plan update process, thus significantly increasing the capability of the planning partnership.

4.4 Project 4

Name	Snohomish County Natural Hazard Mitigation Plan
Owner	Snohomish County Department of Public Works, Surface Water Management Division
Contact	Mary Hurner, Senior Planner, 3000 Rockefeller Avenue, M/S 607 Everett, WA 98201, (425) 388-6401, mary.hurner@co.snohomish.wa.us
Planned/ Actual Dates	Initial Plan: September 2003 to May 2005 Plan Update: November 2009 to September 2010
Budget	Initial Plan: $150,000 Plan Update: $220,000
Website	http://www1.co.snohomish.wa.us/Departments/Emergency_Management/Information/Plans_Reports/nhmp2010.htm

Project Description: Tetra Tech facilitated this multi-jurisdictional planning effort as well as its 5-year update that included 43 planning partners (13 cities and 30 special purpose districts including 9 Fire Districts) within Snohomish County, Washington. One of the driving factors for this planning effort was the County's desire to meet Community Rating System (CRS) prerequisites for the National Flood Insurance Program dealing with repetitive loss properties, while at the same time developing a plan compliant under the DMA. The scope of this project was divided into 4 phases, organizing resources (including a public outreach/involvement strategy), assessing the risk, developing the mitigation plan, and implementation of the plan. The plan was approved by FEMA Region X in May of 2005, and at that time, was the largest approved multi-jurisdictional plan within the western United States (5 FEMA Regions). At the time the plan was approved, it was the highest scoring, multi-jurisdictional plan under the CRS program in the nation. The planning area covered by the plan includes numerous characteristics relevant to the Fresno County Operational Area, with respect to encompassing both rural and urban areas, multi-jurisdictional stakeholder participation that includes Special Purpose Districts. Valuable lessons learned, tools, and templates from this project would be utilized by the Tetra Tech planning team on the Spokane County project.

SECTION 5 FEE SCHEDULE

Services provided to the MFPD will be compensated in accordance with the rate schedule provided in Table 4.

Table 4: Fee Schedule

Labor Category	Rate
Senior Program Manager	$179
Intermediate Program Manager	$150
Junior Program Manager	$134
Senior Project Manager	$110
Intermediate Project Manager	$103
Senior Quality Assurance Analyst	$156
Intermediate Quality Assurance Analyst	$95
Junior Quality Assurance Analyst	$85
Senior Risk Management Specialist	$166
Senior Geospatial Analyst	$122
Intermediate Geospatial Analyst	$97
Junior Geospatial Analyst	$82
Senior Communications Strategy Analyst	$123
Intermediate Communications Strategy Analyst	$118
Junior Communications Strategy Analyst	$105
Senior Scientist/Engineer	$104
Intermediate Scientist/Engineer	$95
Junior Scientist/Engineer	$85
Scientist/Engineer	$75
Environmental Technician III	$60
Environmental Technician II	$55
Environmental Technician I	$50
Contracts Manager	$145
Administration	$79
Clerical	$45

Notes: Rates effective through September 30, 2014. Out year rates will be escalated at 3%. All other direct costs such as mileage, materials, supplies, etc. will be billed at actual cost.

SECTION 6 UNDERUTILIZED DISADVANTAGED BUSINESS ENTERPRISES

Tetra Tech is able to self-perform all of the tasks required for this project. Tetra Tech has existing relationships with Disadvantaged Business Enterprise (DBE) firms and explored having a DBE firm that would add unique qualifications to the team. However, for this project Tetra Tech did not team with a DBE firm.

APPENDIX A
FULL RESUMES FOR KEY STAFF

ROB FLANER, CFM

Study Manager/Junior Program Manager

Rob Flaner developed a comprehensive background in all aspects of floodplain management while administering the Community Rating System (CRS) under contract with the Federal Emergency Management Agency (FEMA). The CRS is a FEMA program that provides incentive to communities to exceed the minimum requirements of the National Flood Insurance Program. The CRS program recognizes a comprehensive range of non-structural flood hazard mitigation activities that include: public information, mapping and regulations, flood damage reduction, planning and flood warning. Rob was responsible for coordinating all CRS objectives between State, Local, and Federal entities in a 9-state territory that spanned three FEMA Regions. During his tenure with the CRS program, Rob was able to develop strong working relationships with his Federal, State, and Local partners. The CRS since its inception has developed into a template for sustainable floodplain management that can be used at the local level to support multiple facets of community programs. Rob's detailed understanding of the CRS program and floodplain management helped him to develop a diverse floodplain management background that has been utilized by FEMA as a Disaster Assistance Employee.

Rob has taken this diverse experience in floodplain management and expanded it into planning and preparing for the impacts of all natural hazards through coordinated planning efforts pursuant to the Disaster Mitigation Act of 2000. Utilizing planning tools such as HAZUS-MH, FEMA's Benefit Cost Analysis Re-engineering (BCAR) and the CRS 10-step planning template, Rob has supported local governments across the country in all phases of emergency management. Rob currently serves as Tetra Tech's Hazard Mitigation program Manager for the western U.S. This position involves managing multi-disciplined projects as well as providing subject matter expertise in all phases of emergency management.

Education:

B.S., Biological Sciences, University of California at Davis, 1984

Certifications/Registrations

Certified Floodplain Manager, 2000

ASFPM US-00-00143

Areas of Expertise:

Developed a comprehensive background in all aspects of floodplain management while administering the Community Rating System (CRS) under contract with the Federal Emergency Management Agency (FEMA) Developed multiple data management tools to increase analysis and presentation capabilities

Expanded floodplain management into planning and preparing for the impacts of all natural hazards through coordinated planning efforts pursuant to the Disaster Mitigation Act of 2000

RELEVANT EXPERIENCE

Hazard Mitigation Program Technical Assistance, VVWRA- Upper Narrows Sewer Line Interceptor Replacement, March 22, 2011 to June 30, 2011. Rob was the lead benefit-cost analyst on this project to coordinate and secure FEMA funding for the loss of Victor Valley Waste Water Reclamation Authority's main sewer line interceptor originally constructed in 1970 within the Mojave Riverbed lost during the storm event of December/January 2011. Funding under the FEMA 406 mitigation program was being pursued by VVWR, which needed to show the project was cost effective to be eligible for funding under the grant program. Rob ran analyses of multiple alternatives to find the best alternative, which was a relocation of the pipeline out of the Mojave riverbed. These analyses were very complex and involved utilization of engineering, historical loss and cost data that was provided by the Tetra Tech team supporting the project. Rob also provided VVWRA guidance on the 406 mitigation grant program including: project eligibility, grant application requirements, and project screening.

Hazard Mitigation Program Assistance, Idaho Bureau of Homeland Security, June 2008-Present. Tetra Tech provides service order based technical assistance to the Idaho Bureau of Homeland Security (IBHS) to support its Hazard Mitigation Assistance (HMA) program annually. Rob manages a multi-disciplined team in response to all task orders issued by the State. Tetra Tech directly supports local governments within the State of Idaho in the preparation of grant applications for FEMA's pre and post disaster mitigation grant programs. This technical assistance includes:

- Participation in conference calls between the IBHS and any local government wishing to prepare and HMA application for FY-2009.
- Performance of benefit-cost analyses using FEMA approved methodologies and software (BCAR)
- Technical review of benefit-cost analyses not performed by Tetra Tech
- FEMA "e-grants" technical assistance
- Grant application QA/QC

Hazard Mitigation Program Assistance, the City of Snoqualmie, WA, January 2008 – Present. The City of Snoqualmie, WA is the "poster child" for flood risk exposure in FEMA Region X. Severally impacted by 3 presidentially declared flood events in a 2-year period; The City of Snoqualmie retained Tetra Tech to provide hazard mitigation support services, including:

- Grant application assistance for FEMA hazard mitigation grant programs.
- Benefit-cost analyses for over 50 flood damaged structures.

- Construction of a detailed level-2 HAZUS-MH flood model utilizing property specific data (FEMA Elevation Certificates) to establish/validate damage functions.
- Public education on FEMA grants programs and their eligibility requirements.
- Mediator between the State, FEMA and the City on technical and programmatic issues
- NFIP compliance
- Initiation of the 5-year update to the City's hazard mitigation plan.

Rob managed all phases of this project as well and providing the principal subject matter expertise. This included oversight of a multi-disciplined team assembled to meet the needs of the City.

Hazard Mitigation Program Assistance, Federal Emergency Management Agency June–December 2008. Under this volunteer project, Tetra Tech served FEMA as a registered "beta" tester for the benefit-cost Analysis Re-engineering (BCAR) platform. During this beta test phase Tetra Tech performed the following tasks:

- Performed over 50 benefit-cost analyses for existing Tetra Tech clients utilizing both the new BCAR methodology and the older FEMA BCA toolkit to compare results.
- Provided feedback to FEMA staff on observations and findings during testing phase.
- Supported FEMA staff on trouble-shooting software application problems.
- Validation of damage functions
- Utilized BCAR methodology for actual FY-2009 HMA applications

On Call Contract, Hazard Mitigation Planning and Technical Services, King County, Washington, 2005 to present. As part of its on-call contract for floodplain management and Hazard mitigation technical assistance, Tetra Tech has provided the following services under a work-order/task order basis:

- Project development, scoping and cost estimation
- Tetra Tech has performed over 200 benefit-cost analyses for King County since 2005 that has resulted in the county securing over $8 million grant funding under FEMA Hazard Mitigation Grant programs.
- HMA Grant application preparation and technical assistance
- Post project loss avoidance study
- Hazus model development
- Risk based analysis of capital projects

Floodplain Management / Hazard Mitigation Services and Training, Pierce County, Washington, 2006-present. As part of its Stormwater on-call contract with Pierce County, Tetra Tech provides hazard mitigation program technical that includes the following services on a work-order/task order basis:

- Project development, scoping and cost estimation
- Provide FEMA grant application technical support in that includes: benefit/cost analysis of the prospective project, e-grant support, and grant writing.
- Tetra Tech has performed over 30 benefit-cost analyses for Pierce County since 2006 that have resulted in the County securing over $6 million grant funding under FEMA Hazard Mitigation Grant programs.

Hazard Mitigation Program Assistance, City of Roseville, California 2005-Present. Tetra Tech provides Hazard Mitigation program assistances to the City of Roseville on an "on-call" basis. Services provided under these contracts include:

- Hazard Mitigation program support that includes application preparation and benefit-cost analyses.
- Tetra Tech has aided the City of Roseville in securing over $1.5 million in grant funding under FEMA Hazard Mitigation grant programs since 2005.
- Development/Maintenance of City's Hazus model

TETRA TECH

Ed Whitford, CFM
Senior GIS Analyst

Ed Whitford is a Senior GIS Analyst for Tetra Tech. He has over 12 years of experience in applying GIS technologies to natural resource, storm water, wastewater, and natural hazard planning. He has particular expertise in the integration of GIS technologies with floodplain mapping, watershed assessment, and hazard risk analysis. His work is regularly seen during the planning process, using maps and graphs to visually depict information at meetings and public workshops. Ed brings to the Tetra Tech team the ability to conduct production level GIS work as well as automating data development tasks using programming and database.

Ed is an advanced user of Hazus for risk assessments, estimating losses for earthquake and flood events. His specialty is in distilling tabular data generated in Hazus and compiled from local data repositories into meaningful information. Ed has completed the Hazus Practitioner Track that provides the foundation of Hazus skills focusing on the Flood Model. In June 2011 Ed was selected as Hazus "User of the Year" by Hazus program managers from FEMA headquarters for his excellence in the field of risk analysis in support of disaster preparedness planning.

In addition to risk analysis work, Ed has extensive experience with FEMA DFIRM base map specifications and database requirements. His involvement with digital conversion of flood maps extends from the scoping and map production, to community outreach and map review.

EXPERIENCE

Hazard Mitigation Planning

Makah Tribe Hazards Mitigation Plan, Neah Bay, Washington, 2011 – Present
The Makah Tribe developed its first Tribal Hazard Mitigation Plan pursuant to the requirements of the Disaster Mitigation Act of 2000. As the risk assessment lead, Ed is facilitating a detailed analysis of the impact of nine natural and man-made hazards using tools such as GIS and Hazus. This risk assessment will be utilized to create a Hazard Inventory and Vulnerability Analysis (HIVA) that will become an integral part of the Natural Hazard Mitigation Plan and overall emergency management program for the Tribe. Hazard data included USGS regionally specific Earthquake Shakemap data, Hazus generated floodplain, and detailed wildfire hazard data, all which will provide regionally specific detailed loss estimates. Along with detailed hazard information, a modified building and critical facility layer was developed and used as part of the analysis. The Tribal Hazard Mitigation Plan is currently still under development, with an anticipated approval of August 2012.

Hazus Flood Model Enhancements, King County, WA, 2012
Ed supported the Flood Control District in enhancing their existing Hazus flood model that was developed as part of the district's All Hazard Mitigation Plan. Tasks included the migration of all software and projects to Hazus Version 2.1, development of a County-wide User Defined Facility (UDF) database, incorporating first floor elevation data collected by County staff as well and new LiDAR data. The enhancements to the district's flood model resulted in a more accurate loss estimate that will be used to support mitigation planning and risk reduction strategies.

Project Role:
Senior Geospatial Analyst

Education:
Bachelor of Arts, Geography and GIS, Western Washington University, 2000

Training
Hazus Practitioner

Certified Floodplain Manager

Years of Experience:
12

Years with Tetra Tech:
12

Areas of Experience:
GIS Project Management

GIS and Database Development/Management

FEMA Hazus MH

FEMA Digital Flood Mapping Products

Spatial Analysis and Modeling

Python Scripting

GIS integration with Hydrologic and Hydraulic Modeling

Expert Cartography

Hazard Mitigation Plan, Contra Costa County, California, 2011
Tetra Tech prepared a Hazard Mitigation plan for Contra Costa, California. Ed used Hazus to inventory assets and create loss estimates for the flood and earthquake hazards. For the flood model new LiDAR and FEMA DFIRM data was used to develop highly accurate flood depth grids. Ed also incorporated USGS Earthquake Shakemap data which will provide regionally specific detailed earthquake loss estimates. Hazus outputs were used to support the public involvement process and display extent and location of all hazards.

Hazard Mitigation Plan, Del Norte County, California, 2009
Tetra Tech prepared a multi-jurisdictional Hazard Mitigation plan for the Del Norte County, California Operational Area. Ed used Hazus to inventory assets and create loss estimates for the flood, earthquake, and tsunami hazards. Data generated by Hazus included occupancy and values of vulnerable buildings, identification of repetitive loss properties, estimate of losses per hazards, and development trends. Ed was responsible for gathering County/City GIS base data, such as soils, liquefaction, DEMs and critical facilities to perform a Hazus level II analysis.

180th-200th Street Levee Alternative Analysis, King County, WA, 2011
Building upon his application of Hazus, Ed led the effort to perform a "risk-based" analysis of multiple setback levee alignments in King County, WA. The 180th-200th street levee alternative project along the Green River has become a model project for the use of "risk-based" analysis of capital projects. This project looked at three different levee alignments, plus existing conditions, at three different dam operation locations for four flow scenarios. This involved construction of 48 sets of depth grids and 40 different analyses all built upon a user-defined inventory. Using his experience in support of hazard mitigation grant application preparation, outputs from these analyses were interfaced with FEMA's Benefit Cost Analysis Re-engineering (BCAR) model to calculate annualized avoided damages of each levee alignment. The analyses will help to guide King County decision-makers in the identification of the project alignment that will provide the highest degree of risk reduction, thus justifying the capital expenditure.

HAZUS Model Enhancements, Snohomish County, WA, 2011
Ed supported the County in enhancing existing Hazus models that were developed as part of the County's All Hazard Mitigation Plan Update. Tasks included the migration of all software and projects to Hazus version 2.0, updates to the flood module User Defined Facility (UDF) database, incorporating multi-frequency flood depth grids, and training County staff on the use of the earthquake module to estimate preliminary damages. The enhancements to the County's flood model resulted in a more accurate loss estimate, along with a suite of flood frequencies that will prove to be a valuable tool for County decision makers. The County also has the training and knowledge to develop earthquake post disaster preliminary damage assessments, incorporating the latest USGS shakemap scenarios.

Hazard Mitigation Plan, Ada County, ID, 2011
For Ada County's multi-jurisdictional Hazard Mitigation plan Ed used Hazus and the Comprehensive Data Management System (CDMS) to update both General Building Stock (GBS) and Critical Facility data. For the flood and dam failure analysis, a User Defined Facility (UDF) approach was taken, importing and modeling over 30,000 individual structures. The Hazus Earthquake model was used to estimate damages for both user defined scenarios as well as probabilistic events. This detailed hazard analysis was used for plan development as well as public outreach.

Hazard Mitigation Plan, Snohomish County, Washington, 2010
Tetra Tech prepared a multi-jurisdictional Hazard Mitigation plan for Snohomish County, Washington. Ed used Hazus as well as FEMA's Comprehensive Data Management System (CDMS) to inventory assets and create loss estimates for the flood, dam failure, earthquake and tsunami hazards. Ed incorporated FEMA Elevation Certificates as well as County Assessor data to update both Hazus general building stock and user defined facilities. For the Flood and Dam Failure analysis, over 12,000 user defined facilities were modeled in Hazus to provide a more accurate estimate economic impact. USGS Earthquake Shakemap data was also incorporated into the analysis, which provided regionally specific detailed earthquake loss estimates. Ed also updated the County Critical Facilities.

FEMA 406 Mitigation Grant Support, Tillamook County, Oregon, 2011
Tetra Tech supported Tillamook County in their effort to apply for a FEMA Grant under the FEMA 406, Public Assistance (PA), mitigation alternative program to fund a County flood control project. Ed used Hazus to model both pre and post project economic loss. Over 500 User Defined Facilities were loaded into the Tillamook flood

study region, along with eight detailed flood depth grids (four pre project and four post project). Economic loss estimates were generated for all eight flood scenarios and used to support the project Benefit Cost Analysis (BCAR).

Hazard Mitigation Plan, Snoqualmie, Washington, 2009
Tetra Tech has prepared a Hazard Mitigation plan for Snoqualmie, Washington. Ed used Hazus to inventory assets and create loss estimates for the flood and earthquake hazards. Ed used FEMA's Comprehensive Data Management System (CDMS) to update citywide datasets such as critical facilities and general building stock to perform a Hazus level II analysis. The City of Snoqualmie was modeled using a User Defined Facility Approach. All 3400 structures within the City were loaded into the Hazus Flood and Earthquake models which allowed for a detailed building specific analysis.

Hazus Training and Technical Support for FEMA Region X, Bothell, WA, 2008
Ed assisted in the training of FEMA and State personnel on advanced Hazus. Topics included performing level 2 and level 3 analyses. Training focused on data gap analysis and how to update data using custom Hazus tools (CDMS), applying Hazus methodologies to hazard mitigation strategies, using Hazus to model real world disasters, and understanding Hazus reporting and outputs. Curriculum for this training was focused on a case study involving Lewis County, WA December 2007 flood event. This project also includes technical support for a FEMA Region 10 exercise using Hazus modeling capabilities to facilitate and support response operations, along with identifying and prioritizing possible mitigation opportunities

FEMA Floodplain Studies and Watershed Assessments

FEMA Map Mod DFIRM Conversion, Multiple Counties, Washington, 2009
The goal of this project was to convert hardcopy Flood Insurance Rate Maps (FIRMs) into a digital format (DFIRMs). This multi-year effort will performed DFIRM conversions for 7 counties in the State of Washington. The project incorporated into GIS existing County base data (topography, digital aerial ortho-photos, land ownership, and roads) as well as restudy floodplain maps. FEMA database requirements and map specification were used to store and serve the data, georeference scanned FIRMs, digitize floodplain features, re-delineate floodplains, and create annotation for cartographic presentation.

Puyallup River Flood Protection Investigation, Pierce County, Washington, 2008
This effort was launched after updated FEMA floodplain maps of the Puyallup River depicted flood elevations higher than estimated in previous maps. Tetra Tech identified and evaluated alternatives for implementing flood protection projects that would minimize the impacts of the FEMA floodplain and floodway along the lower reach of the Puyallup River. Ed managed the acquisition of study area data along with the development of base maps and GIS support for specific flood related, environmental, and socioeconomic elements of the evaluated alternatives.

FEMA Map Mod Stream Study, Douglas County, Washington, 2007
The goal of this project is to produce updated floodplain maps and evaluate flood hazard mitigation options for a 15 mile stretch of Moses Coulee in Douglas County. GIS was used to compile topography, road, floodplain, and other relevant data along with field surveyed cross-sections. These data were used in a model using HEC Geo-RAS and custom built tools. Ed also used GIS to post-process hydraulic model results and create updated floodplain maps.

WRIA 54 Watershed Plan, Spokane, Washington, 2007
This effort was launched to build a watershed plan for the Spokane River in accordance with Washington Department of Ecology's requirements. Water resource management strategies must be identified in the context of current laws and policies related to water use. Ed was integral in developing 1.) A base map of the watershed, and 2.) Map data supporting the characterization of watershed elements such as hydrologic conditions, water use, and in stream flow. Ed contacted local governments in search of zoning/land use plus well and water use information. Water use information included an intensive collection and standardization of irrigated land and soil data. Ed organized this information into hydrologic units, formulating a sensible data set for use in developing a water use budget. The GIS developed by Ed will be used by local governments as a water use planning tool.

TETRA TECH

Michelle Bates
Principal Scientist

Ms. Bates has been working as a consulting biologist in California for the last 14 years. She is a Principal Biologist responsible for managing a team of biologists, planners, and GIS analysts. She has managed and completed various projects at Marine Corps Base Camp Pendleton (MCBCP) and San Clemente Island. Ms. Bates is currently managing the completion of a Non-vernal Pool Endangered Plant Species Census and Monitoring project at Marine Corps Air Station (MCAS) Miramar. As Project Manager, Ms. Bates has designed and led the field efforts and managed the development of project reports and GIS dataset deliverables.

Ms. Bates also has substantial experience as a field biologist. She has conducted numerous biological surveys for listed and sensitive plant species and other sensitive wildlife species such as the California red-legged frog, southern steelhead, southwestern pond turtle, desert tortoise, and listed plant species. In one particular previous project, while operating under a U.S. Fish and Wildlife Service issued Biological Opinion, Ms. Bates maintained a population of 40 adult California red-legged frogs and 300 tadpoles in captivity for a one-month period. Ms. Bates also participated in an oak revegetation project at Bradbury Dam that resulted in the successful initial establishment of over 800 oak seedlings. Finally, Ms. Bates has performed wetland delineations for a variety of projects and prepared various permit packages.

Ms. Bates has a California Department of Fish and Wildlife Scientific Collecting Permit, U.S. Fish and Wildlife Service 10(a)(1)(A) permit for California red-legged frogs, and has been authorized under Biological Opinions to handle California red-legged frogs and tidewater gobies.

Project Role:

Senior Quality Assurance Analyst

Education:

Bachelor of Science, Biology, Pepperdine University, 1997

Master in Environmental Science and Management, University of California at Santa Barbara, 2000

Training

40 Hour HAZWOPER

Unexploded ordnance training

Years of Experience:

14

Years with Tetra Tech:

13

Special Skills:

USFWS Permit to handle California red-legged frogs

List of Approved Biologists for Santa Barbara, San Luis Obispo, Ventura Counties

EXPERIENCE

Fire Management Plans

Update to the Wildland Fire and Fuels Management Plan (WFFMP), Vandenberg Air Force Base. Ms. Bates managed the update to the WFFMP on Vandenberg AFB. For this project, a 10 year plan was developed, which selected 10 projects for implementation over the next 10 years. The project required coordination with various departments on base, including base fire personnel. The project resulted in a WFFMP that incorporates natural resources concerns with fire management priorities. Detailed analysis was also conducted using base GIS data.

Burned Area Emergency Response (BAER) Project, Vandenberg Air Force Base. Ms. Bates managed the BAER project for the Lake Canyon (or Pine Canyon) Fire on Vandenberg AFB. Ms. Bates worked closely with Vandenberg AFB to successfully complete this project. The project required the assessment and mapping of invasive plant species, on-going treatment of invasive plant species, completion of surveys and monitoring for special-status species, botanical sampling (relevé sampling), completion of a hydrogeological analysis, installation and monitoring of erosion and sediment controls, rain event monitoring, and reporting.

Botanical Experience

Non-vernal Pool Endangered Plant Species Census and/or Monitoring Surveys, MCAS Miramar, CA. Tetra Tech is currently completing a rare plant species census and monitoring project for MCAS Miramar. For this project, a station-wide census for federally endangered willowy monardella will be performed within all appropriate habitats, including ephemeral and perennial

drainages and associated flood plain areas. In addition, Tetra Tech will monitor 17 previously established sites. The purpose of the Station-wide census and long-term monitoring is to assess population size and allow for an analysis of population trends over time. Tetra Tech will also review, evaluate, and update the current monitoring effort, techniques, and long-term objectives by developing a field protocol manual for the willowy monardella census and long-term monitoring. The field manual will be a guide to provide reproducible techniques to accurately collect population data that will be statistically valid, improve the habitat and ecological knowledge of willowy monardella, and be scientifically defensible according to professional standards. Tetra Tech will also monitor 11 established monitoring plots for the Del Mar manzanita. The purpose of the long-term monitoring is to collect demographic data in order to assess population size and analyze population trends over time. For this project to date, Tetra Tech has prepared a Health and Safety Plan, a Draft and Final Work Plan for the Del Mar manzanita aspect of the project, and is in the process of preparing a Draft Work Plan for the willowy monardella aspect of the project. Tetra Tech has researched the existing monitoring and census protocols and contacted various technical experts regarding limitations of the current data collection methods. As the project manager and technical lead for this project, responsibilities include coordination, the development of field protocols and data management techniques, management and supervision of technical staff and subcontractors, and quality assurance/quality control.

Rare Plant Survey for the Thread-leaved Brodiaea at Camp Pendleton, CA. Tetra Tech has completed surveys for the federally threatened and state endangered thread-leaved brodiaea (BRFI) at Camp Pendleton in 2009, 2010, and 2011. A protocol survey was completed, which required 100 percent visual survey of all project areas. As the project manager and technical lead, project responsibilities included extensive coordination, supervision, and management of field personnel over the 6 week data collection period. The project also required significant data management and data quality control.

History of the Thread-leaved Brodiaea at Camp Pendleton, CA. Tetra Tech prepared a History Report for the federally threatened and state endangered thread-leaved brodiaea (BRFI) at Camp Pendleton. Development of the History Report required research into the species discovery on base, how the survey protocol has changed over time, the acres surveyed each year since its discovery, and the number of populations and individuals found over time. Tetra Tech has also performed an analysis of the relationship between BRFI occurrences and vegetation, soils, and rainfall data. The History Report also includes a discussion of how the population has changed over time. Tetra Tech also performed an assessment of the impacts to the species that have been generated over time, by analyzing GIS data and aerial photography. This has been an iterative process that requires close coordination with base personnel.

Update the Rare Plant Survey and Survey Routes GIS Database for Camp Pendleton, CA. Tetra Tech completed a project that required the update and revision of two base GIS layers. This project required the revision and update to the rare plant survey area and rare plant survey route GIS layers for multiple sensitive plant species. The attributes were reviewed for completeness and the formats were revised per Base GIS standards for these two GIS layers. These two layers were reviewed to ensure that the data were complete and accurate. In some cases, a comparison between project reports and the GIS data was performed and the GIS data was updated. A number of recent NEPA projects required focused rare plant surveys, and these survey locations were also added to the GIS files. GIS data was updated to ensure that geodatabase files conformed to the current Base GIS standards.

Rare Plant Survey and Development of an Enhancement Plan for the Thread-leaved Brodiaea at a Proposed Mitigation Site, Camp Pendleton, CA. Tetra Tech has completed surveys for the federally threatened and state endangered thread-leaved brodiaea at a proposed mitigation site at Camp Pendleton in 2011. A protocol survey was completed, which required 100 percent visual survey of the mitigation site. Tetra Tech is also currently preparing an Enhancement Plan for the BRFI at this site. The Enhancement Plan has required research into appropriate habitat restoration techniques and the development of a detailed restoration plan and schedule. The Enhancement Plan will eventually be reviewed by the U.S. Fish and Wildlife Service.

Rare Plant Surveys at Camp Pendleton, CA. Tetra Tech completed rare plant surveys at Camp Pendleton. The primary scope of this project was to representatively sample each vegetation community occurring within a recently burned area for the occurrence of sensitive plant species. Multiple surveys were performed to inventory populations and update the GIS database. As the project manager and technical lead, project responsibilities included design of

survey methods and data collection methods, extensive coordination, supervision, and management of field personnel and data management and data quality control.

Coastal Sage Scrub Restoration Project, MCBCP, California. Tetra Tech performed site preparation activities at a proposed coastal sage scrub restoration site on MCBCP. The project required an assessment of the baseline condition of the site and comparison of this condition to a reference site. Removal of non-native, invasive plant species was also performed. Tetra Tech also conducted a soils analysis and mapping of the restoration site. As Project Manager, Ms. Bates designed the baseline botanical survey methodologies for the site and the reference site and managed the data collection efforts and non-native, invasive species removal activities.

Invasive Plant Species Removal at MCBCP. Ms. Bates has managed two large-scale non-native plant species removal projects at MCBCP. Both projects have required the development of measures to minimize impacts to special-status species, nesting birds, California gnatcatcher, Pacific pocket mouse, and sensitive habitats. Projects require monthly reports, monitoring and mapping of treatment efforts, and close coordination with a subcontractor.

Rare Plant Study on the Desert Cymopterus at Edwards Air Force Base, CA. The goal of this project was to provide information on the desert cymopterus that would provide for the ultimate restoration of this rare plant species throughout Edwards Air Force Base. A large-scale population study was implemented in order to achieve this goal. Detailed growth measurements on two known populations of the desert cymopterus on Edwards Air Force Base were taken and data was also collected in order to characterize the habitats of these two populations. As technical lead, project responsibilities included large-scale experimental design and extensive coordination, supervision, and management of 14 field personnel over the three-month data collection period. The project also required significant data management and data quality control. A Population Study Report was prepared that summarized the results of the data collection, provided data analysis (including statistical interpretation of the results), provided a discussion of the results, and developed conclusions of the overall project. Issues addressed included reproductive success, pollinators, predators, mortality, and habitat requirements.

Biological Surveys, Plans, and Reports

Development of a Management Plan for the Pacific Pocket Mouse at Camp Pendleton, CA. Tetra Tech is currently preparing a Management Plan for the Pacific pocket mouse at Camp Pendleton. This project has required the review of existing documents and data and coordination with outside technical experts. A panel of experts has been assembled into a working group that will review and comment on the Management Plan. Development of the Draft Management Plan is nearing completion. Ms. Bates is the Project Manager and has been involved in all aspects of this project.

Update of the San Clemente Sage Sparrow Monitoring Plan, San Clemente Island, CA. Tetra Tech, in conjunction with Audubon California, recently updated the San Clemente sage sparrow monitoring plan. The San Clemente sage sparrow is a federally threatened subspecies limited entirely to San Clemente Island. Many aspects of the current monitoring plan were in place since 1999. However, recent population counts and observations made it clear that the current monitoring protocols were not meeting Navy needs. Tetra Tech and Audubon California assessed the limitations of the current program. A group of outside technical experts was assembled and a workshop was held on the island to discuss the current program and proposed changes to the program. Tetra Tech and Audubon California then revised the current program and developed an updated Monitoring Plan. As Project Manager, responsibilities included locating and coordinating with the group of outside technical experts, coordinating and leading the workshop with Audubon California, researching the existing monitoring program, proposing revised monitoring methods, incorporating comments from the group of outside technical experts into the revised monitoring program, and developing the updated Monitoring Plan.

Development of a San Clemente Island Loggerhead Shrike Population Sustainability Plan and Model, San Clemente Island, CA. The San Clemente loggerhead shrike is endemic to San Clemente Island and was close to extinction prior to the initiation of the San Clemente Island Loggerhead Shrike Recovery Program. A key aspect in the success of this program has been efforts to augment the wild shrike population with the release of captive bred and captive reared shrikes. Tetra Tech, in conjunction with the Institute for Wildlife Studies (IWS), is developing a Population Sustainability Plan and Model that will obtain the necessary information to support the development of appropriate recovery objectives and goals for the SCLS Recovery Plan. One version of the Plan and Model have

been prepared and Tetra Tech will work with IWS and a panel of outside technical experts to prepare additional versions. As Project Manager, Ms. Bates has been involved in all aspects of this project.

Invasive Species (Veldt Grass) Project, Vandenberg Air Force Base. Ms. Bates managed the Invasive Species (Veldt Grass) project on Vandenberg AFB. This project involved the design and implementation of a field study to determine the impacts of grazing on veldt grass and tarplant.

Surveys at Landfill, Vandenberg Air Force Base. Tetra Tech worked with Vandenberg AFB to assess potential biological impacts that may occur from constructing a fence around the landfill on Base. Tetra Tech biologists implemented a field survey to identify any potential biological resources requiring protection or minimization measures, including Gaviota tarplant, the host plant for the El Segundo blue butterfly (seacliff buckwheat), and Lompoc yerba santa. Ms. Bates managed the natural resources aspects of the project, including the field surveys and report preparation.

Biological Assessment, Simi Valley, CA. Performed rare plant surveys. The proposed project was a housing development for a 69-acre project site. An initial site visit was conducted and it was determined that rare plant surveys, burrowing owl surveys, and a wetlands delineation were required. Surveys and reports were completed.

Biological Assessment, Thousand Oaks, CA. A general survey of the project site to assess the presence of special-status plant and wildlife species and their habitat was conducted. During completion of the survey, it was determined that portions of the site are undeveloped open space that requires botanical surveys. Three individuals of the Plummer's mariposa lily, a rare plant species, were found during the rare plant survey. The location of these individuals was within the disturbance area and fire brush clearance area associated with proposed future site activities. This species was transplanted to a location outside of the proposed disturbance area.

Biological Assessment for the Gaviota Tarplant Completed for a Proposed Remediation Activities, Vandenberg Air Force Base, Santa Barbara County, CA. Tetra Tech worked on Vandenberg AFB at a contaminated site that contains the Gaviota tarplant. Tetra Tech prepared a Biological Assessment in support of formal Section 7 consultation with the U.S. Fish and Wildlife Service regarding proposed future site activities. The BA reviewed site activities in sufficient detail to determine if they may affect any state or federally threatened, endangered, proposed, or candidate species, or designated or proposed critical habitat, and developed measures to minimize impacts to the species. In order to complete the BA, a field study to determine the demographic parameters of the Gaviota tarplant was completed. A BO was obtained from the U.S. Fish and Wildlife Service. Tetra Tech is currently implementing the conditions of the BO, which requires monitoring of minimization measures.

Surveys for the Gaviota Tarplant, Host Plant for the El Segundo Blue Butterfly, and Beach Layia near Building 960, Vandenberg Air Force Base. Tetra Tech completed surveys for the Gaviota tarplant, the host plant for the El Segundo blue butterfly and the beach layia at a location near Building 960 at Vandenberg AFB. The surveys were required in support of a proposed anti-terrorism barrier. Surveys were completed and a report was provided to Teledyne Solutions. Ms. Bates managed this project and completed the field surveys.

Surveys for the Gaviota Tarplant, Host Plant for the El Segundo Blue Butterfly, Lompoc Yerba Santa, and Beach Layia for the MDA Diverse Power Project, Vandenberg Air Force Base. Tetra Tech completed surveys for the Gaviota tarplant, the host plant for the El Segundo blue butterfly (seacliff buckwheat), and the beach layia at 3 locations on Vandenberg AFB. The surveys were required for a MDA project that required trenching to install conduit lines. Surveys were completed and a report was provided to Teledyne Solutions. Ms. Bates managed this project and completed the field surveys required.

Surveys for the Gaviota Tarplant and Host Plant for the El Segundo Blue Butterfly in Support of the Kinetic Energy Interceptor project, Vandenberg Air Force Base. Tetra Tech completed surveys for the Gaviota tarplant and the host plant for the El Segundo blue butterfly (seacliff buckwheat) at Test Pad 01 on Vandenberg AFB. The surveys were required in support of the NEPA document prepared for the proposed Kinetic Energy Interceptor project. Surveys were completed and a report was provided to Teledyne Solutions. Ms. Bates managed this project and completed the field surveys required.

Natural Resources Management Plans

Development of an Integrated Natural and Cultural Resources Management Plan, Welford, United Kingdom. Tetra Tech developed an Integrated Natural and Cultural Resources Management Plan (INCRMP) for an installation located near Welford within the United Kingdom. The INCRMP provides a mechanism to maintain sustainable land use through ecosystem management and biodiversity protection. Tetra Tech completed a site visit in order to collect existing data, interviewed appropriate personnel, and completed initial site surveys to verify previous habitat mapping data. Tetra Tech gathered information regarding the historical and current woodland habitat management practices and coordinated with local biologists to develop project and management recommendations to improve the woodland habitat. Historical maps of ancient woodland were also reviewed to determine appropriate areas for woodland restoration. Development of the INCRMP required analysis of existing data and newly collected data, GIS mapping, and the development of overall management recommendations and specific project recommendations to manage the natural and cultural resources within the installation and meet the mission requirements.

Development of an Integrated Natural and Cultural Resources Management Plan, Lajes Field, Azores, Portugal. Tetra Tech developed an Integrated Natural and Cultural Resources Management Plan (INCRMP) for Lajes Field, a U.S. Air Forces Europe (USAFE) base located within the Azores islands off the coast of Portugal. The purpose of the INCRMP is to provide a mechanism for maintaining the natural and cultural resources within Lajes Field, while also supporting the military mission. Completion of this project required the analysis of existing data regarding natural and cultural resources and the development of overall management recommendations and specific project recommendations to meet host nation and USAFE regulations. Project activities performed include the collection and analysis of existing data, the development of GIS maps, and development of the INCRMP document.

Update to the Integrated Natural Resources Management Plan for Ramstein Air Force Base, Germany. This project consisted of a three phased approach to updating the Integrated Natural Resources Management Plan (INRMP) for Ramstein Air Force Base located in Germany. During Phase I, Tetra Tech developed a work plan and traveled to Germany to complete data collection. Data collection required coordination with both German and American subcontractors, and various Ramstein Air Force Base personnel. Data was compiled and reviewed and coordination was performed with a subcontractor developing a GIS application during Phase II. Phase III consisted of development of the INRMP and utilizing the GIS application developed within Phase II to update the mapping. Given the dynamic nature of the base, an assessment of the current and future conditions of the natural resources was particularly challenging.

Update to the Integrated Natural Resources Management Plan for Andersen Air Force Base, Guam. Over 70 percent of Andersen Air Force Base was proposed as designated critical habitat for several listed species due to the fact that some of the last individuals of the species occur on the Air Force Base. Tetra Tech assisted in facilitating a scoping process with the U.S. Fish and Wildlife Service, Guam Department of Wildlife and Aquatic Resources, and the Air Force to determine how the Integrated Natural Resources Management Plan could be updated to preclude the need to designate critical habitat at Andersen Air Force Base. Project responsibilities included assisting in the update of the Integrated Natural Resources Management Plan based on the results of this scoping process.

Fisheries and Watershed Management

Completion of a Watershed Plan for Rincon Creek, Santa Barbara County, CA. Tetra Tech prepared the Rincon Creek Watershed Plan for the County of Santa Barbara. Specific objectives of the plan were to provide an overview of the baseline physical conditions in the watershed, identify key issues affecting watershed health, develop and prioritize projects to remedy the identify problems, and improve stewardship of the watershed's natural resources. One aspect of the project involved the assessment of steelhead habitat and upstream migration barriers. Another important issue within the creek is the presence of non-native invasive plant species. A field survey was completed in May of 2006 to assess steelhead habitat and barriers, non-native invasive plant species, the geomorphology of the creek, and riparian function. Results of this assessment were used to help design an implementation strategy for high priority restoration projects. Tetra Tech worked closely with a stakeholder group, the Rincon Creek Watershed Council, throughout the development of the watershed plan. The Rincon Creek Watershed Plan developed 24 projects to address the key issues within the watershed. An implementation plan was also developed, which identified the next steps to project implementation, additional studies needed, target dates for implementation, maintenance and monitoring requirements, and potential funding sources. Ms. Bates managed the

entire project and presented the draft watershed plan at the 2007 conference of the Salmonid Restoration Federation (SRF).

Steelhead Habitat Assessment in the Santa Monica Mountains, CA. Tetra Tech completed a habitat assessment and fish passage barrier analysis for steelhead in 13 watersheds within the Santa Monica Mountains. A goal of the project was to provide data and recommendations that can be used to design and prioritize restoration projects for the species on a regional scale. Tetra Tech designed the field study work plan, conducted the data analysis, created a GIS application, assisted in the development of habitat evaluation criteria and watershed prioritization methods, and contributed substantially to the final report. The project was led by California Trout and additional project partners included Heal the Bay, the Santa Monica Resource Conservation District, and the University of California at Santa Barbara. The project was funded by grants received from the Coastal Conservancy and California Department of Fish and Wildlife. Ms. Bates co-presented the results of this project to the Salmonid Restoration Federation Conference in 2006 and the American Fisheries Society Conference 2007.

Water Pollution Control Program, Santa Ynez Chumash, Santa Barbara County, CA. Tetra Tech recently developed a Water Pollution Control Program for the Santa Ynez Band of Chumash Indians. Field work was completed in order to gather ecological, water chemistry, and physical habitat data for the characterization of watershed health and the development of water quality standards for Zanja de Cota Creek, a tributary to the Santa Ynez River. Research on the historical ecology of the creek was also performed, with particular emphasize on the historical use of the creek by steelhead.

Biological Assessment for the Poche Beach Water Treatment System, Orange County, CA. A Biological Assessment was required for a project involving the installation of a water treatment system on Poche Beach. Completion of the Biological Assessment required seining of a scour pond located on the beach for the presence of any special-status species and coordination with the California Coastal Commission. Ms. Bates performed the fieldwork for the project, and wrote the Biological Assessment, which included an alternatives analysis and impacts assessment.

TETRA TECH

Amy Noddings
Senior Scientist

Ms. Noddings is an environmental scientist and biologist with a background in conservation planning, habitat restoration, and biological surveys. She has been working as a consulting biologist in California for the last 5 years. Ms. Noddings has managed a number of task orders for Vandenberg Air Force Base and Marine Corps Air Station (MCAS) Miramar. She is currently managing the completion of a Vegetation Mapping project at MCAS Miramar. As Project Manager, Ms. Noddings has managed the development of the project work plan and led field efforts and project meetings.

Ms. Noddings has led and conducted general biological and botanical field surveys and authored a variety of documents including Rare Plant Reports, General Biological Survey Reports, Initial Studies, Mitigated Negative Declarations, and Environmental Impact Reports. Ms. Noddings has performed extensive rare plant surveys, including full coverage surveys for thread-leaved brodiaea (BRFI) at Marine Corps Base Camp Pendleton (MCBCP). In addition, Ms. Noddings has implemented minimization measures at Vandenberg Air Force Base during construction monitoring for Gaviota tarplant, California red-legged frogs, and the host plant for the El Segundo blue butterfly (seacliff buckwheat). Additional details regarding her experience are provided below.

Project Role:
Intermediate Project Manager

Education:
Bachelor of Science, Environmental Science, 2006

Master in Environmental Science and Management, University of California at Santa Barbara, 2008

Training
Unexploded ordnance training

Years of Experience:
5

Years with Tetra Tech:
5

Special Skills:
USFWS Permit to handle listed vernal pool branchiopod species

EXPERIENCE

Fire Management Plans

Update to the Wildland Fire and Fuels Management Plan (WFFMP), Vandenberg Air Force Base. Ms. Noddings authored the update to the WFFMP on Vandenberg AFB. For this project, a 10-year plan was developed, which selected 10 projects for implementation over the next 10 years. The project required coordination with various departments on base, including base fire personnel. The project resulted in a WFFMP that incorporates natural resources concerns with fire management priorities. Detailed analysis was also conducted using base GIS data.

Burned Area Emergency Response (BAER) Project, Vandenberg Air Force Base. The BAER project for the Lake Canyon (or Pine Canyon) fire on Vandenberg AFB required the assessment and mapping of invasive plant species, on-going treatment of invasive plant species, completion of surveys and monitoring for special-status species, botanical sampling (relevé sampling), completion of a hydrogeological analysis, installation and monitoring of erosion and sediment controls, rain event monitoring, and reporting. Ms. Noddings contributed to all aspects of the project.

Botanical Experience

Post Fire Invasive Species Management and Monitoring at Camp Pendleton Marine Corps Base, CA. Mapped areas of fennel to be treated and removed from riparian and upland habitat located in the 2007 Ammo fire boundary using the Trimble Geo XH GPS. The purpose of this project is to remove non-native species to a trace level over the course of three years. Photo points were established, and fennel coverage of each photo point was designated a specific cover class. Ms. Noddings performed monthly monitoring of treated areas, which required returning to established photo points and designating the cover class of each area.

Rare Plants Fire Response Surveys at Marine Corps Base Camp Pendleton, CA. Tetra Tech conducted a meandering inventory of rare and fire-following plants within the 2007 Ammo fire boundary at Marine Corps Base Camp Pendleton. The primary scope of the project was to survey new areas that

previously contained thick vegetation that were not suitable for botanical surveys. Ms. Noddings wrote the work plan for the project and generated a target list of rare and fire-following species to be mapped while in the field. Tetra Tech botanists, including Ms. Noddings, performed field surveys in March and June 2009, identifying over 200 native and non-native species within the survey area and mapping the target species. The GIS database was updated, and Ms. Noddings authored the Rare Plants Fire Response Report. Ms. Noddings was permitted by the California Department of Fish and Game to collect voucher specimens of state-listed plants during these surveys for pressing and submittal to the San Diego Natural History Museum for future preservation.

Vegetation and Land Cover Mapping, MCAS Miramar, CA. Tetra Tech is currently developing a new baseline installation vegetation map and providing high-accuracy data layers and appropriate database and metadata development. The final product will be a report with a high-quality, standardized map with associated datasets for vegetation and land-cover occurring within Station boundaries to assist Station resource assessment, management, and conservation needs. As the project manager for this project, responsibilities include leading client meetings, leading field efforts, and extensive coordination with GIS staff.

Non-vernal Pool Endangered Plant Species Census and/or Monitoring Surveys, MCAS Miramar, CA. Tetra Tech completed a rare plant species census and monitoring project for MCAS Miramar. For this project, a station-wide census for federally endangered willowy monardella was performed within all appropriate habitats, including ephemeral and perennial drainages and associated flood plain areas. In addition, Tetra Tech monitored 17 previously established willowy monardella sites. The purpose of the Station-wide census and long-term monitoring is to assess population size and allow for an analysis of population trends over time. Tetra Tech also reviewed, evaluated, and updated the current monitoring effort, techniques, and long-term objectives by developing a field protocol manual for the willowy monardella census and long-term monitoring. In addition, Tetra Tech monitored 11 established monitoring plots for the Del Mar manzanita. The purpose of the long-term monitoring is to collect demographic data in order to assess population size and analyze population trends over time. As the deputy project manager for this project, responsibilities include authorship of the Del Mar Manzanita Work Plan, development of field protocols and data management techniques (including the development of GIS data dictionaries), assistance in management of technical staff, and technical reviews of project reports. Ms. Noddings also performed fieldwork for the Del Mar manzanita monitoring and willowy monardella census.

Rare Plant Surveys for the Thread-leaved Brodiaea at Marine Corps Base Camp Pendleton, CA. Tetra Tech completed surveys for the federally threatened and California state endangered thread-leaved brodiaea at Camp Pendleton in 2009, 2010, and 2011. Each year, a protocol was completed, which required 100 percent visual survey to determine presence/absence. As a Field Team Leader, Ms. Noddings' project responsibilities included oversight of field personnel, instruction of rare species identification, and management of project logistics. The project required extensive GPS use and knowledge and coordination with data management personnel. Ms. Noddings authored the report which addressed the methods, results, and discussion of collected data, including an analysis of soils, suitable habitat, and threats to thread-leaved brodiaea.

History of the Thread-leaved Brodiaea at Camp Pendleton, CA. Ms. Noddings was the primary author of the History Report for the federally threatened and state endangered thread-leaved brodiaea (BRFI) at Camp Pendleton. Development of the History Report has required research into the species discovery on base, how the survey protocol has changed over time, the acres surveyed each year since its discovery, and the number of populations and individuals found over time. Tetra Tech also performed an analysis of the relationship between BRFI occurrences and vegetation, soils, and rainfall data and assessed the impacts to the species that have been generated over time, by analyzing GIS data and aerial photography. This required an iterative process with close coordination with base personnel.

Update the Rare Plant Survey and Survey Routes GIS Database for Camp Pendleton, CA. Tetra Tech completed a project that required the update and revision of two base GIS layers. This project required the revision and update to the rare plant survey area and rare plant survey route GIS layers for multiple sensitive plant species. The attributes were reviewed for completeness and the formats were revised per Base GIS standards for these two GIS layers. These two layers were reviewed to ensure that the data were complete and accurate. In some cases, a comparison between project reports and the GIS data was performed and the GIS data was updated. A number of recent NEPA projects required focused rare plant surveys, and these survey locations were also added to the GIS files. GIS data was updated to ensure that geodatabase files conformed to the current Base GIS standards. Ms. Noddings assisted in acquiring and organizing the data and coordinated extensively with the GIS specialist for this project.

***Brodiaea filifolia* Enhancement Plan for Marine Corps Base Camp Pendleton, CA.** Ms. Noddings authored an enhancement plan for thread-leaved brodiaea for Marine Corps Camp Pendleton. The plan outlines activities to be performed to enhance thread-leaved brodiaea habitat, including site preparation, hand seeding and container plant requirements, nutrient management, non-native invasive plant removal, irrigation, and long-term maintenance and monitoring. The plan also outlines a detailed schedule for when to perform the appropriate habitat restoration techniques. It is anticipated that the U.S. Fish and Wildlife Service will review and approve the plan. Marine Corps Camp Pendleton will implement the enhancement plan in order to off-set impacts to thread-leaved brodiaea.

Biological Surveys and Construction Monitoring

Sensitive Invertebrates Surveys, Vandenberg Air Force Base, CA. Tetra Tech completed a project that required sensitive invertebrate surveys for the El Segundo blue butterfly and vernal pool fairy shrimp. Ms. Noddings was the project manager for the project and coordinated with the subcontractor who had the 10(a)(1)(A) permit to conduct El Segundo blue butterfly surveys. Surveys were conducted from June 15, 2012 to August 22, 2012, during the El Segundo blue butterfly flight season. In addition, the project required an assessment of vernal pools on Vandenberg Air Force Base. Ms. Noddings conducted vernal pool surveys and recorded pool conditions (length, width, depth), percent cover of non-native plant species within and adjacent to each pool, and weather conditions. Ms. Noddings oversaw the development of two reports; one for the El Segundo blue butterfly and one for the vernal pool assessment. Ms. Noddings coordinated with the client and subcontractor throughout the project.

Construction Monitoring, University of California at Santa Barbara (UCSB). Tetra Tech is currently completing construction monitoring activities for a site at UCSB. This project requires that sensitive habitats be monitored during construction. Close coordination with the construction crew, the on-site UCSB habitat restoration group, and UCSB is required. Ms. Noddings performed the pre-construction general biological survey for the site.

Development of a Management Plan for the Pacific Pocket Mouse at Camp Pendleton, CA. Tetra Tech is currently preparing a Management Plan for the Pacific pocket mouse at Camp Pendleton. This project has required the review of existing documents and data and coordination with outside technical experts. A panel of experts has been assembled into a working group that will review and comment on the Management Plan. Development of the Draft Management Plan is nearing completion.

Update of the San Clemente Sage Sparrow Monitoring Plan, San Clemente Island, CA. Tetra Tech, in conjunction with Audubon California, updated the San Clemente sage sparrow monitoring plan. The San Clemente sage sparrow is a federally threatened subspecies limited entirely to San Clemente Island. Many aspects of the current monitoring plan were in place since 1999. However, recent population counts and observations made it clear that the current monitoring protocols were not meeting Navy needs. Tetra Tech and Audubon California assessed the limitations of the current program. A group of outside technical experts was assembled and a workshop was held on the island to discuss the current program and proposed changes to the program. Tetra Tech and Audubon California then revised the current program and developed an updated Monitoring Plan. Ms. Noddings' responsibilities included attending the workshop on San Clemente Island, assisting in revising monitoring methods, incorporating comments from the group of outside technical experts into the revised monitoring program, and developing the updated Monitoring Plan.

Development of a San Clemente Loggerhead Shrike Population Sustainability Plan and Model, San Clemente Island, CA. The San Clemente loggerhead shrike is endemic to San Clemente Island and was close to extinction prior to the initiation of the San Clemente Loggerhead Shrike Recovery Program. A key aspect in the success of this program has been efforts to augment the wild shrike population with the release of captive bred and captive reared shrikes. Tetra Tech, in conjunction with the Institute for Wildlife Studies (IWS), is developing a Population Sustainability Plan and Model that will obtain the necessary information to support the development of appropriate recovery objectives and goals for the SCLS Recovery Plan. One version of the Plan and Model have been prepared and Tetra Tech will work with IWS and a panel of outside technical experts to prepare additional versions.

Invasive Species (Veldt Grass) Project, Vandenberg Air Force Base. Ms. Noddings contributed to the Invasive Species (Veldt Grass) project on Vandenberg AFB. This project involved the design and implementation of a field study to determine the impacts of grazing on veldt grass and tarplant. Ms. Noddings authored the report for the project and analyzed extensive data collected via quadrats along transects.

Biological Resources Monitoring for the Missile Defense Agency Diverse Communications Installation Project

at Vandenberg Air Force Base (AFB), CA. Tetra Tech helped to implement the conditions of a Biological Opinion (BO) that was obtained from the U.S. Fish and Wildlife Service for the Missile Defense Agency Diverse Communications Installation Project at Vandenberg Air Force Base. Ms. Noddings performed construction monitoring to ensure that minimization measures to protect the Gaviota tarplant, the El Segundo blue butterfly, and the California red-legged frog were implemented. Minimization measures required the scraping of tarplant topsoil before construction activities and its replacement post-construction to preserve species seeds. In addition, Ms. Noddings performed pre-construction surveys of the California red-legged frog under the supervision of Ms. Michelle Bates and monitored the assembly of a silt fence around the construction site, as required in the BO.

Tarplant Survey at Landfill, Vandenberg Air Force Base, CA. Tetra Tech worked with Vandenberg Air Force Base to assess potential biological impacts that may occur from constructing a fence around the landfill on Base. Tetra Tech biologists, including Ms. Noddings, implemented a preliminary field survey to identify any potential biological resources requiring protection or minimization measures, including Gaviota tarplant, the host plant for the El Segundo blue butterfly, and Lompoc yerba santa.

Biological Survey and Wetlands Delineation for the Storke Ranch Project, University of California, Santa Barbara, CA. Ms. Noddings performed a biological survey for an upcoming project at the University of California, Santa Barbara. The entire project site and 250-foot buffer were walked and visually surveyed. Dominant plant species and habitats were identified and recorded. A wetlands delineation was performed, following the methods described in the *U.S. Army Corps of Engineers Wetlands Delineation Manual*. Three wetlands criteria, including hydrophytic vegetation, soil, and hydrology, were analyzed and recorded. Federal and state jurisdictions were delineated concurrently. Ms. Noddings wrote the letter report summarizing the results of the biological analysis and wetlands delineation for submittal to the client.

Habitat Assessment and Biological Survey, Vasco Wind Farm, CA. Ms. Noddings assisted in the completion of a habitat assessment and biological survey at the Vasco Wind Farm at Altamont Pass during September 2008. The Trimble Geo XH GPS was used to record the location of burrows indicative of burrowing owls, kit fox, and badgers. Also, surveys were conducted to identify presence/absence of big tarplant and wetland botanical species. Ms. Noddings assisted San Francisco Tetra Tech biologists with field work that would be incorporated in a pre-project report to identify biological resources of concern prior to the removal and replacement of wind turbines.

Habitat Restoration

El Segundo Blue Butterfly Habitat Restoration Project, Vandenberg Air Force Base, CA. Tetra Tech implemented a habitat restoration project for the El Segundo blue butterfly on Vandenberg AFB. This project required the collection of on-site seed for several plant species, including seacliff buckwheat, which is the host plant for the El Segundo blue butterfly. Seed was then grown at a nursery and seedlings have been planted at the restoration site. Non-native, invasive plants have also been removed at the site through a combination of herbicide treatments and hand removal activities. As the project manager for this project, Ms. Noddings performed extensive client and subcontractor coordination, and managed technical staff.

Coastal Sage Scrub Restoration Project at Camp Pendleton Marine Corps Base, CA. Tetra Tech performed site preparation activities at a proposed coastal sage scrub restoration site at Camp Pendleton. The project required extensive baseline condition assessment and the removal of non-native species. As a Field Team Leader, Ms. Noddings performed a pre-treatment survey of the restoration site and mapped target species, primarily fennel, artichoke thistle, Russian thistle, and eucalyptus trees, and generated an inventory of all native and non-native species observed. A post-treatment survey was also performed to assess the effectiveness of non-native species removal.

Habitat Enhancement and Post-Enhancement Monitoring of Stephens' Kangaroo Rat at Camp Pendleton Marine Corps Base, CA. Ms. Noddings performed multiple vegetation surveys at Marine Corps Base Camp Pendleton for the Stephens' Kangaroo Rat habitat enhancement project. The purpose of this project was to establish habitat suitable for the federally endangered Stephens' kangaroo rat. Ms. Noddings performed a survey prior to the mechanical removal of vegetation, which will enhance habitat quality for the Stephens' kangaroo rat. Survey requirements included the identification of native and non-native species in non-native grassland habitat and the survey of five 1 meter by 1 meter quadrats along 20 transects. For each quadrat, percent cover of bare ground, annual grasses, perennial grasses, forbs, shrubs, and trees was estimated. Measurements, such as slope and aspect,

were taken for each transect and photo points of each transect were established. Ms. Noddings performed three surveys after the mechanical removal of vegetation to assess changes to the habitat quality over time.

Peck Park Canyon Enhancement Project, City of Los Angeles, CA. Ms. Noddings has performed monitoring for the Peck Park Canyon Enhancement Project in San Pedro, California. During monitoring, installed container plants were counted, and dead and missing plants were noted on project engineering drawings. Photographs were taken at established photograph points to assess changes to the project site over time. Seeded areas were evaluated for percent cover in enhancement areas. Ms. Noddings contributed to the First and Second Annual Reports that summarized the results of the monitoring efforts and compared the monitoring results to established success criteria and permit requirements

San Antonio Creek Clean Water Act Sections 401 & 404 Compliance, Vandenberg Air Force Base, CA. Ms. Noddings contributed to the restoration of San Antonio Creek on Vandenberg Air Force Base after construction activities were performed to stabilize creek slopes. Ms. Noddings was involved in all aspects of the project, including assisting in the mapping of invasive plant species, botanical sampling, design of mapping procedures, rain monitoring completion, and reporting. She worked extensively with the subcontractor who performs non-native invasive plant species removal and erosion control repair. She authored a Restoration Plan that outlines the location of future seeding, container plant installation, and willow and riparian cuttings installation. She also calculated the restored acreage at the project site so that success criteria of the Compensatory Mitigation and Monitoring Plan could be evaluated and to ensure compliance with project permits.

Design and Implementation of Habitat Restoration Plan, Vandenberg Air Force Base, CA. Ms. Noddings designed a Habitat Restoration Plan to be implemented after soil decontamination activities, as necessary under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). The purpose of the project was to restore areas in seasonal wetlands habitat disturbed by soil removal activities and implement a monitoring and maintenance program for successful site restoration. The objective was to achieve the Air Force's goal of no net loss of wetlands habitat. Project responsibilities included authorship of the Habitat Restoration Plan, selection of native species to be used for revegetation and seeding activities, and design of a three-year monitoring and maintenance schedule, including the use of performance criteria to evaluate project success. Extensive coordination with native landscapers during revegetation activities was required.

Mitigation Banking Research for Cat Canyon Oil Fields, CA. Ms. Noddings generated a list of options for the off-site mitigation of the removal of 29 coast live oak trees and 99 shrubs during the excavation of contaminated soils in the Cat Canyon Oil Fields. This research required investigating the list of CDFW approved mitigation banks and obtaining extensive information on the process of purchasing credits from a mitigation bank and the process of contributing to the purchase of a conservation easement through the Land Trust for Santa Barbara.

JONATHAN RASER, CFM
Senior Risk Management Specialist

Jonathan Raser, CFM has over 20 years of experience in environmental and risk assessment/hazard mitigation project management. Current work includes managing State and Local Hazard Mitigation Plan (HMP) projects regulated under the Disaster Mitigation Act of 2000 (DMA 2000), and the regional development of this business sector.

Mr. Raser and his staff supports numerous counties and jurisdictions with plan implementation from annual plan review, grant application support, continued public and stakeholder outreach, to plan updating. He has FEMA training on Benefit-Cost Analysis (BCA) for mitigation projects, and has prepared and submitted BCAs and grant applications under the Unified Hazard Mitigation Assistance programs (PDM, RFC, SRL, HMA) and state HMGP.

Mr. Raser chairs the Community Rating System (CRS) subcommittee of the New Jersey chapter of the Association of State Floodplain Managers (ASFPM), and sits on the Climate Change Adaptation Working Group of the New Jersey Department of Environmental Protection – Office of Energy.

Education:

B.S. Chemical Engineering, Syracuse University, 1983

Professional Certificate in Geomatics, Rutgers University, 2001

Engineer-In-Training (EIT)

Certified Floodplain Manager, Association of State Floodplain Managers

FEMA HAZUS-MH Training (Basic and Advanced)

Benefit-Cost Analysis Reengineered (BCAR) training

Trimble Certified Global Positioning Systems (GPS) Provider

Member, Association of State Floodplain Managers (ASFPM)

Member, New Jersey Association of Floodplain Managers (NJAFM)

Chair, Community Rating Subcommittee of the NJAFM

Member, New York State Floodplain and Stormwater Managers Association (NYSFSMA)

Years of Experience:

+20

Areas of Experience:

Hazard Mitigation

Training

Grant Application, Tracking and Budgeting

Risk Assessment

Benefit Cost Analysis

Strategic Planning

RELEVANT EXPERIENCE

Hazard Risk Assessment and Mitigation Planning (DMA 2000), (2003 to Present).
Mr. Raser currently manages local All-Hazard Mitigation Plan projects for counties and single jurisdictions in New Jersey and New York State, including Cape May, Hudson, Suffolk and Westchester counties. These plans have included working with the New Jersey Office of Emergency Management (NJOEM) and New York State Emergency Management Office (NYSEMO), and various federal, county and local agencies and organizations to identify hazards, collect relevant data, prepare loss estimates/risk assessments, and develop appropriate mitigation strategies.

Mr. Raser has formal training and extensive experience working with FEMA's Hazards U.S. – Multi-Hazard (HAZUS-MH) GIS extension for conducting hazard analysis/risk assessment, as has received formal FEMA training in its use and application. Further, Mr. Raser has performed HAZUS-MH analysis for FEMA sponsored risk assessment pilot projects in several major U.S. cities, and supports counties and municipalities in the preparation of grant applications to prepare DMA 2000 plans.

DMA 2000 Mitigation Planning – Program Management, (2003 to Present).
Mr. Raser manages all aspects of the Tetra Tech EM's mitigation program, which includes completed, approved single and multi-jurisdictional local plans in New Jersey (4 counties) and New York (7 counties). Further Mr. Raser supports mitigation planning efforts nationwide, working with Tetra Tech divisions throughout the county to expand this business area and develop local and regional planning capabilities. Having exposure to projects and planners working in other FEMA regions, Mr. Raser has been able to develop consistent planning approaches, tools and deliverables that have met the needs and approval of a wide range of clients and FEMA plan reviewers.

State Hazard Mitigation Planning, (2012 to Present).
Mr. Raser is currently managing the project to perform the 2013 Update the New Jersey State HMP. In addition to meeting the obligations of the three-year State Plan update cycle, the update process is intended to meet EMAP Standards 4.3 and 4.4, and achieve Enhanced Plan status. Further, compliance with recent THIRA directives and deadlines are being considering in light of the ongoing State update process. Mr. Raser is working with along with other Tetra Tech staff who have developed the Montana and Washington State Plans and their updates.

Local All-Hazards Mitigation Planning (DMA 2000), (2003 to Present).
Mr. Raser currently manages local All-Hazard Mitigation Planning projects for counties and single jurisdictions in New York State (Broome, Chenango, Cortland, Delaware, Montgomery, Orange, Onondaga, Suffolk, Tompkins and Westchester counties) and New Jersey (Cape May, Hudson, Passaic and counties). These plans have included working with the New York State Office of

Emergency Management (NYSOEM), New Jersey State Police – Office of Emergency Management, and various federal, county and local agencies and organizations to identify hazards, collect relevant data, prepare loss estimates/risk assessments, and develop appropriate mitigation strategies. In these projects Mr. Raser has been directly responsible for organizing and managing mitigation Steering and Planning committees, establishing participation requirements and documenting participation, developing and implementing data and information collection programs, planning and conducting public outreach through a wide variety of methods (questionnaires/surveys, websites, public meetings and forums, brochures and mailings, press releases, emails and social media), and working directly with the planning partners to identify and prioritize a program of appropriate and cost-effective mitigation actions.

MITIGATION PLANNING PROJECTS THAT MR. RASER HAS DIRECTLY MANAGED IN FEMA REGION II INCLUDE:

Cape May County Multi-Jurisdictional All-Hazards Mitigation Plan and Implementation Support (2009-2010)
Preparation of a DMA 2000-compliant mitigation plan for a multi-jurisdictional area including the county and 16 municipalities focusing on natural hazards including coastal storms, coastal erosion, tsunami and wildfire. The vulnerability of the County to coastal storms and coastal flooding is severe. Storm surge modeling performed by USACE shows nearly 70% of the land area of the County submerged by a Category I hurricane. The highest elevation in the county is 44 feet above sea level. The county has the greatest number of NFIP flood insurance policies in the State.

Since the plan was approved in 2010, Tetra Tech has been supporting the Cape May County Department of Public Works and Engineering and several municipalities with the evaluation of projects for mitigation grant eligibility and cost-effectiveness. Projects identified as eligible and likely cost-effective are screened through a preliminary BCA process, with favorable candidate projects advanced for further grant application efforts. Tetra Tech assisted the County and the City of Ocean City with the completion of formal BCAs and grant applications for the 2011 Federal Hazard Mitigation Assistance (HMA) grant program, as well as for several Hazard Mitigation Grant Program (HMGP) opportunities available in the wake of recent declared disasters in the State.

Hudson County Multi-Jurisdictional All-Hazards Mitigation Plan (2006-2008)
Tetra Tech supported Hudson County, the most densely populated county in New Jersey located directly across the Hudson River from Manhattan, and its 12 inclusive municipalities with their all-hazard mitigation plan. In addition to addressing the county's extreme vulnerability to coastal and storm surge inundation, the plan addressed both man-made and technological hazards (including terrorism). Tetra Tech conducted vulnerability and capability assessments according to Department of Homeland Security guidelines, and developed a "non-natural" hazard mitigation plan in parallel with the natural hazards plan to maintain the confidentiality of sensitive information.

Township of Little Falls Hazard Mitigation Plan (2006-2008)
Preparation of a DMA 2000-compliant mitigation plan for a single jurisdiction area focusing on natural hazards. Risk assessments were developed for flood, severe storm, severe winter storm and earthquake. The Township, encompassing less than three square miles, has more than 150 repetitive and severe repetitive loss properties. The Final Plan was approved by FEMA Region II in November 2008.

Suffolk County Multi-Jurisdictional All-Hazards Mitigation Plan and Implementation Support (2006-2008)
Preparation of a DMA 2000-compliant mitigation plan for a multi-jurisdictional area including the county and 28 participating municipalities focusing on natural hazards including nor'easter, severe storm, severe winter storm, hurricane, coastal erosion, natural groundwater contamination, infestation, shallow groundwater flooding, flood, earthquake, wildfire and drought. Tetra Tech's vulnerability and loss analysis for coastal storms, including the effects of both wind and water damage (velocity, wave run-up and storm surge inundation) used an innovative application of HAZUS-MH developed by our risk assessment modeler who is also one of FEMA's lead HAZUS-MH trainers. Under this contract, Tetra Tech also provided four days of HAZUS-MH training to the participating jurisdictions.

Since the Plan was approved by FEMA Region II in April, 2008, Tetra Tech has been supporting the County with annual plan reviews and reporting, and with grant application and Benefit-Cost analysis support.

ALISON M. MISKIMAN, CFM

Senior Geospatial Analyst/Hazard Mitigation Specialist

Alison Miskiman has over 10 years of experience in the environmental field. She has extensive experience in hazard mitigation planning and conducting risk assessments utilizing geographic information systems (GIS) including FEMA's Hazards U.S. - Multi-Hazard (HAZUS-MH). She is proficient in FEMA's HAZUS-MH flood, wind and earthquake models; FEMA's Benefit Cost Analysis software; and relational database management. Additionally, she has experience evaluating releases of hazardous substances that may endanger the environment and/or public health. Ms. Miskiman has supported and managed numerous programs and projects for state, local, and federal government agencies, including FEMA, and U.S. Environmental Protection Agency (EPA), various states and counties, and international and private sector clients. Ms. Miskiman has designed and executed multi-media sampling investigations for EPA's Region I Site Assessment Program, prepared draft Hazard Ranking System (HRS) evaluations, and coordinated and managed multi-disciplinary teams in the field.

Ms. Miskiman is currently the lead risk assessor for FEMA Region 1, 2, 3 and 6 Local and State Hazard Mitigation Plan (HMP) projects regulated under the Disaster Mitigation Act of 2000 (DMA 2000). As lead risk assessor, Ms. Miskiman conducts vulnerability assessments evaluating exposure and estimating population, structure and economic losses using the FEMA HAZUS earthquake, wind and flood (riverine and coastal) models. In addition to mitigation planning, Ms. Miskiman is knowledgeable in the support of county and local governments throughout New York and New Jersey with plan implementation, including grant application and BCA support utilizing FEMA's BCA module.

Education:

M.S. Earth Science/Geochemical Systems, University of New Hampshire

B.S. Environmental Science, University of Scranton

ASFM Certified Floodplain Manager

ESRI ArcGIS 9.0 courses (Introduction to ArcGIS I, II, Advanced Analysis with ArcGIS)

FEMA Hazards U.S. – Multi-Hazard (HAZUS-MH)

FEMA, Benefit-Cost Analysis Course (BCA), September 2008 and Updated September 2009

EPA CAMEO software suite

Years of Experience:

+10

Areas of Experience:

Hazard Mitigation

Risk Assessment

Benefit Cost Analysis

Strategic Planning

GIS/HAZUS-MH

RELEVANT EXPERIENCE

Hudson County, New Jersey (2011 to 2012). Ms. Miskiman designed and assisted in the development of a Google Earth mapping application for Hudson County's functional needs facilities. The program is designed to assist emergency responders with identifying resources (location of entrances/exists, photographs, plans, surveys, etc.) available in an emergency setting in a portable GIS program.

Hazard Risk Assessment and Mitigation Planning (DMA 2000) (2006 – Present). Ms. Miskiman is a Certified Floodplain Manager and supports All-Hazard Mitigation Plan projects for states, counties and single jurisdictions. These plans include working with the New York State Office of Emergency Management, New Jersey State Police – Office of Emergency Management, and various federal, county and local agencies and organizations to identify hazards, collect relevant data, prepare loss estimates/risk assessments, and develop appropriate mitigation strategies. Ms. Miskiman is proficient in FEMA's Hazards U.S. – Multi-Hazard (HAZUS-MH) GIS extension for conducting hazard analysis/risk assessment for the flood (riverine and coastal), wind, and earthquake hazards; and has received formal FEMA training in its use and application. Further, Ms. Miskiman is the technical lead for the Risk and Vulnerability Assessment sections for coastal erosion, drought, earthquake, extreme temperature, flood (riverine and coastal), landslide, wind (hurricane, nor'easter, severe storms, coastal storms), wildfire, winter storms hazards for FEMA-approved HMPs. Ms. Miskiman has worked on the following HMPs in FEMA Region 2 alone.

New Jersey

- Cape May County, New Jersey (2009-2010);
- Hudson County, New Jersey (2006-2008);
- Somerset County, New Jersey (2007-2008);
- Burlington County, New Jersey (2013–Present).
- State of New Jersey Hazard Mitigation Plan Update (2012–Present)

New York

- Village of Briarcliff Manor, New York (2006-2007);
- Town and Villages of Greenburgh, New York (2010-2011);
- Town of New Castle, New York (2008-2009);
- City Port Jervis, New York (2008-2009);

- Village of Scarsdale, New York (2010-2011):
- Chenango County, New York (2006-2008);
- Cortland County, New York (2010-2011);
- Montgomery County, New York (2008-2009);
- Fulton County, New York (2009-2011);
- Greene County, New York (2007-2009);
- Onondaga County, New York (2009-2010);
- Saratoga County, New York (2008-2011)
- Suffolk County, New York (2006-2008);
- Town of New Rochelle, New York (2011);
- Delaware County, New York (2011-2012);
- Town of East Fishkill, New York (2012-Present);
- Town of Southampton, New York (2012-Present);
- Town of Blooming Grove, New York (2012-Present);
- Town of Shandaken, New York (2012-Present);
- Tioga County, New York (2012);
- Broome County, New York (2012);
- Cayuga County, New York (2012-Present)

FEMA HMGP Grant Consultant (2013 – Present). Ms. Miskiman is the project manager and lead grant application author and BCA analyst for the Township of Neptune New Jersey's FEMA HMGP grant application needs. Ms. Miskiman is working with the Township to prepare all of their grant applications and full benefit-cost analyses for post-Hurricane Sandy projects to mitigate flooding and hurricane-related hazards. Further, Ms. Miskiman will coordinate with the State and FEMA through project award.

FEMA BCA and HMA Grant Applications (2009 – Present). Ms. Miskiman has conducted benefit cost analyses for municipalities in New York, New Jersey and Idaho seeking Hazard Mitigation Assistance funding using FEMA's Benefit Cost Analysis software for the following project types: structural elevations; acquisitions, stormwater drainage improvements; bulkheading and tide-check valve projects; rock revetment/bank stabilization projects and pumping stations. In addition, Ms. Miskiman has prepared Pre-Disaster Mitigation-Competitive (PDM), Flood Mitigation Assistance (FMA) and Severe Repetitive Loss (SRL) grant applications in E-Grants and New Jersey Hazard Mitigation Grant Program (HMGP) applications.

- **Neptune, Monmouth County, New Jersey - BCA Analyst and Author of HMA Pre-Disaster Mitigation-Competitive Grant Application – (2009 - 2010).** Ms. Miskiman conducted the benefit cost analysis and prepared the 2010 PDM grant application in E-Grants for the Township of Neptune, New Jersey to mitigate flooding in the northern portion of South Riverside Drive neighborhood along the Shark River. Low lying areas along the Shark River frequently flood due to the low elevation and location of outfall pipes and adjacent roads. Losses include road closing/response costs in addition to detours and preventing residents from accessing their homes numerous times per year. The proposed solution is to install valves at the outfall pipe ends and install bulkheads made of composite material. The 2010 PDM Grant was awarded in September 2010.
- **Neptune, Monmouth County, New Jersey - BCA Analyst and Author of HMA Flood Mitigation Assistance Grant Application Support (2009 - 2010).** Ms. Miskiman conducted the benefit cost analysis and prepared the 2010 FMA grant application in E-Grants for the Township of Neptune, New Jersey to mitigate flooding in the South Concourse neighborhood along the Shark River. Low lying areas along the Shark River frequently flood due to the low elevation and location of outfall pipes and adjacent roads. The flooding causes damage to and closure of the roads, not only due to storm surges but also at high tides, approximately two-to-three times per month, 12 months per year. Losses from these repetitive flood events exceed $15,000 per year in road closing/response costs in addition to forcing residents from their homes several times per month to wait out the flood waters on high ground. The proposed solution is to install valves at the outfall pipe ends and install bulkheads at street-ends made of composite material. The 2010 FMA Grant was awarded in September 2010.
- ***Ocean City, Cape May County, New Jersey - Author of Hazard Mitigation Grant Program Grant (2010).*** Ms. Miskiman prepared the HMGP application for Ocean City New Jersey to mitigate flooding. The proposed flood mitigation project is to install a pump station on 3rd Street between Haven Avenue and Simpson Avenue to assist in the discharge of rain water from 1st Street to the 8th Street and from the Bay Bulkhead to Atlantic Avenue and partially reconstruct and reroute stormwater to the pump station.

- ***Borough of Manville, Somerset County, New Jersey - BCA for HMGP Grant Application (2011).*** Ms. Miskiman conducted the benefit cost analysis in support of the HMGP grant application for the Borough of Manville to acquire residential homes along the Millstone River. Tetra Tech worked with the Borough, New Jersey Office of Emergency Management and FEMA Region II to successfully complete the analysis. The HMGP application was awarded in January 2012.
- ***Town of Riverhead, New York – BCA Analyst (2011).*** Ms. Miskiman performed two separate BCAs (structural acquisitions and stormwater management project) in support of the PDM 2011 and HMGP grant application for the Town of Riverhead New York to mitigate flooding. Tetra Tech worked with the Town, the State of New York Office of Emergency Management and FEMA Region II to successfully complete the analysis. The goal of the project is to mitigate the flood hazard in the Horton Avenue area, thereby reducing or eliminating the potential for future damages, including physical damage, loss of function and emergency management costs. The project had two key objectives: 1) To acquire and demolish nine (9) properties containing 12 single family home, thereby eliminating the flood hazard that has placed the residents at risk of loss and injury for decades, and eliminating future use of federal disaster funds; and 2) To implement a two phase stormwater management project that will reduce stormwater runoff and improve stormwater quality by reducing volume and sediment. The HMGP application was awarded.

TETRA TECH

Dan Portman
Editor/Illustrator

Dan Portman, Tetra Tech's technical editor and illustrator since 1992, applies his writing, editing and graphics skills to ensure that Tetra Tech documents are thorough and clear. Formerly an engineer and a newspaper reporter and editor, Dan develops documents that convey complex information in a way that is both technically correct and easily understood. He works with in-house staff, clients and subconsultants to produce effective, readable documents that meet client goals and company standards. He also creates original documents—based on analysis by professional staff—for clients who need products specially targeted to the general public. Dan produces public-involvement materials such as fact sheets, newsletters, and informational signs. Skilled in the use of a wide range of illustration software, he generates graphics for reports and presentations that present technical information in clean, simple images.

The sections below list the many documents for which Dan has provided editorial, design, graphic and production assistance. Highlight projects indicate work for which Dan contributed efforts beyond his usual editorial review, document design and graphics preparation services to help Tetra Tech clients meet special needs for complex projects

TECHNICAL EDITING

Surface Water Management

HIGHLIGHT PROJECT: Green River External Advisory Review Panel Report, King County Flood Control District
The King County Flood Control District hired Tetra Tech to facilitate a panel of experts to review the District's short- and long-term plans for Green River flood management in light of damage to the Howard Hanson Dam that reduced the dam's ability to provide flood control along the lower Green River. Dan attended the two-day workshop at which experts from across the U.S. reviewed current flood hazard management plans and debated the best options for future management activities. He then developed an outline for a report on the experts' review, drafted the initial chapters describing the project background, and incorporated text from individual panel members into a final report with recommendations.

HIGHLIGHT PROJECT: Spokane Regional Stormwater Manual, Spokane County and the Cities of Spokane and Spokane Valley, Washington
Staff from three jurisdictions in the Spokane, Washington region had contributed to a manual to provide developers with guidelines to stormwater requirements. Tetra Tech was hired to provide Dan's editorial review of the document. His review addressed grammar, readability, consistency and visual appearance. He worked directly with a client representative to verify terminology, clarify concepts and correct errors. He also developed a consistent visual presentation for the 400-page manual.

HIGHLIGHT PROJECT: King County Flood Hazard Management Plan (2006) and Flood Hazard Management Plan Update (2013), King County, Washington
King County's River and Floodplain Management Section drafted an extensive countywide management plan for six major rivers in unincorporated areas of the heavily urbanized county. This work prepared by diverse County staff members filled over a thousand pages in the main report and appendices. The County

Project Role:
Intermediate Communications Strategy Analyst

Education:
B.A., Communications, University of Washington, 1986

B.S., Aerospace Engineering, University of Notre Dame, 1980

Registration/Certification:
N/A

Years of Experience:
33

Years with Tetra Tech:
20

Areas of Experience:
General and Technical Writing and Editing

Computer Graphics

Document Design and Production

awarded Tetra Tech a contract for Dan to review the entire document for errors, general writing quality and consistency. Upon updating the document six years later, King County again hired Tetra Tech to provide Dan's editorial review of the completed revised material.

HIGHLIGHT PROJECT: Review of Literature on Economic Impacts of Flooding, King County, Washington
King County's River and Floodplain Management Section needed a literature review on the importance of flood risk reduction efforts in protecting the King County economy. The County awarded a contract to Tetra Tech for Dan to perform this review and prepare a summary report of available information. The studies identified through the literature review covered traditional economics, ecological economics and long-term impacts of flood events.

HIGHLIGHT PROJECT: WRIA 19 Watershed Plan, Clallam County, Washington
Tetra tech led a team of consultants to prepare a watershed plan for Water Resource Inventory Area (WRIA) 19 in Clallam County, Washington. Technical professionals from numerous firms, as well as private citizens involved in the planning process, submitted material for detailed technical appendices to be incorporated in the final document. In addition to editing these submitted materials, Dan summarized all of them into a single primary document, developing a consistent writing and presentation style, creating tables to summarize technical findings, and adapting the language to a form suitable for a diverse, non-technical audience.

HIGHLIGHT PROJECT: Chehalis Basin Plan, Chehalis Basin Partnership, Washington
The Chehalis Basin Partnership asked Tetra Tech to rework a several-hundred-page Level 1 Basin Assessment prepared by another consultant into a succinct, user-friendly document that Partnership members could readily grasp for use in decision-making. Dan prepared a detailed summary of the original report, explaining the concepts to be addressed, reorganizing information to meet the Partnership's planning needs, creating dozens of new graphics to illustrate key findings, and noting all data discrepancies in the original document. Dan's research identified 20 studies and reports addressing the County's interests. The summary report provided highlights of each study, as well as an overview summary of conclusions to be drawn from the array of reports. Electronic versions of the studies themselves were provided as an appendix, for further review by County staff as needed.

HIGHLIGHT PROJECT: Comprehensive Drainage Plan Executive Summary, City of Auburn, Washington
After editing and preparing more than 100 maps for a two-volume report addressing surface water quality and quantity issues throughout the City of Auburn, Dan prepared a 22-page executive summary explaining the work that had been done using figures and tables to illustrate the recommended improvements.

HIGHLIGHT PROJECT: Lower Nooksack River Comprehensive Flood Hazard Management Plan, Whatcom County, Washington
Following two years of technical analysis by our engineers, Whatcom County asked Tetra Tech to produce a Comprehensive Flood Hazard Management Plan that would explain to the general public the complex technical and regulatory issues related to flood hazard management. Dan met regularly with client representatives and Tetra Tech surface water management engineers and prepared a user-friendly document that succinctly explains the findings and recommendations of the multi-year analysis. He wrote the text, created all graphics for the report, and designed the document layout in a highly user-friendly format.

South Fork Snoqualmie River Levee Repair and Reconstruction Plan, King County, Washington
A comprehensive evaluation of hydraulic and geotechnical conditions of the South Fork Snoqualmie River and its floodplain, including an evaluation of existing conditions based on two-dimensional hydraulic modeling, and an analysis of the levees' geotechnical and hydrogeologic stability.

Smith Island Estuary Restoration Project, Snohomish County, Washington
Tetra Tech's work for Snohomish County on the Smith Island Estuary Restoration Project involved the preparation of numerous documents to assess the diverse aspects of the project, which would construct a new setback dike on the west side of Smith Island, in the Snohomish River estuary, and breach two sections of existing dike along the Union Slough side of the island. The project would restore 400 acres of tidal marshlands that provide critical habitat for endangered Chinook salmon and other salmon species. Dan worked on both initial preparation and editorial review of a federal grant application, a saltwater impact assessment, a drainage study and a hydraulic analysis report. He also prepared numerous graphics for use in these documents.

Reddington Levee Setback and Extension Feasibility Report, King County, Washington
A feasibility study of a project to set back and extend and existing levee along 2 miles of the Green River in a heavily developed area in south King County. Preparation of the nearly 300-page report included compiling content from numerous Tetra Tech staff and subconsultants, as well as creation of 50 detailed figures.

180th to 200th Street Levee Setback Study, King County, Washington
A conceptual study of options for setting back existing levees along 3 miles of the Green River in a heavily developed area in south King County. Preparation of the nearly 400-page report included compiling content from numerous Tetra Tech staff and subconsultants, as well as creation of 80 detailed figures.

Middle Fork Snoqualmie River Channel Migration Update, 1996 – 2010, King County, Washington
An update on channel migration history and potential for the Middle Fork Snoqualmie River, prepared as a preliminary step in developing a comprehensive management strategy for a portion of the river. The study updated the migration history of the study reach with aerial photos and other new data, classified the study reach morphology using the Montgomery-Buffington classification system, and provided field reconnaissance to evaluate active river processes and morphologic features.

WRIA 54 Lower Spokane Watershed Planning Document, Spokane County, Washington
An extensive set of planning documents for the Lower Spokane River in eastern Washington, which includes much of the Spokane urban area and drains to the Columbia River. Documents included a data compilation and technical assessment, an in-stream flow study, a water quality report, a water storage assessment, a WRIA watershed plan and addendum, and a detailed implementation plan

South Fidalgo Island Stormwater Management Plan, Skagit County, Washington
A comprehensive assessment of stormwater problems in the fast-growing, unincorporated South Fidalgo Island area, including an investigation into ways to address current system deficiencies and identify potential future deficiencies due to growth.

Manual of Stormwater Best Management Practices, City and Borough of Juneau, Alaska
A manual of practices to be used in the development of erosion and sedimentation control plans required for submittal to the City and Borough of Juneau.

South Fork Tolt Watershed Management Plan, Seattle Public Utilities, Washington
A comprehensive management plan for an undeveloped watershed that is one of the primary drinking water sources for the City of Seattle, addressing protection, forest resources, aquatic resources, fish and wildlife, invasive plants, cultural resources and transportation.

Oak Harbor Comprehensive Stormwater Drainage Plan, City of Oak Harbor, Washington
A planning document to address flooding and stormwater pollution in a fast-growing city in Washington's Puget Sound.

Coal Creek Stabilization Program, City of Bellevue, Washington
Existing conditions report and environmental impact statement for a project to reduce flooding and sedimentation along an urban creek affected by a past history of coal mining impacts and encroaching development.

Baker River Project Part 12 PMP/PMF Study, Baker River Watershed, Washington
A technical memorandum describing the development of Baker River hydrographs for flow into and out of the Upper Baker and Lower Baker reservoirs during the probable maximum flood.

Stormwater Management Plan, City of Medford, Oregon
A stormwater management plan prepared to meet federal National Pollutant Discharge Elimination System Phase II requirements.

Stormwater Management Program to Meet NPDES Phase II MS4 Compliance, Rogue Valley, Oregon
A uniform set of stormwater management programs for three small cities (Talent, Central Point and Phoenix), a sewer district (Rogue Valley Sewer Services) and unincorporated county areas (Jackson County) in the Rogue Valley region of southern Oregon.

Oregon Zoo Stormwater Master Plan, Metro (Regional Planning Agency), Oregon
A master plan for eventually ending the discharge of combined storm and sanitary sewage from the Oregon Zoo's system.

Eastside Drainage Study, City of Beaverton, Oregon
Report on a systematic investigation to assess system condition and capacity and evaluate flooding problems in three small drainage basins in the City of Beaverton.

Flood Damage Assessment; Benefit/Cost Analysis, City of North Bend, Washington
A report estimating annualized costs associated with flood damages in specific areas of the City of North Bend and developing flood mitigation alternatives and related design concepts.

Stormwater Master Plan, City of Wilsonville, Oregon
An overall plan for managing stormwater runoff quantity and quality within the City of Wilsonville's urban growth boundary and adjoining urban reserve areas. The plan identifies current and potential future erosion, flooding, and water quality problems, and recommends capital improvement projects to address the identified problems. It also recommends changes to City development standards.

North Creek, Little Bear Creek and Stanwood Drainage Needs Reports, Snohomish County, Washington
One multiple-volume report and two smaller reports assessing the drainage needs of three basins in unincorporated Snohomish County.

Stormwater and Drainage Master Plan, City of Ashland, Oregon
Identification of drainage problems in the City of Ashland and development of solutions to address them, as well as an inventory of creeks, including identification of areas requiring protection and restoration, with recommendations to enhance the City's creek corridors, improve water quality, and handle future storm needs.

2000 Comprehensive Drainage Plan, City of Auburn, Washington
An extensive, three-volume report presenting a complete analysis of the City of Auburn's surface water quality and quantity needs.

Rapid Rural Reconnaissance, King County, Washington
Numerous quickly prepared reports on local stormwater problems, using succinct text and illustrations to summarize problems and proposed solutions.

Naches River Comprehensive Flood Hazard Management Plan, Yakima County, Washington
A comprehensive analysis of flooding problems and solutions throughout the Naches River basin.

Repetitive Loss Plan, Pierce County, Washington
An evaluation of flooding problems and potential solutions in FEMA-designated repetitive loss areas, prepared as part of Pierce County's involvement in the Community Rating System of the National Flood Insurance Program.

Clear Creek Comprehensive Flood Hazard Management Plan, Kitsap County, Washington
A plan identifying and evaluating flooding problems in the Clear Creek corridor and developing feasible, cost-effective solutions to these problems..

Clear Creek Existing Conditions Report, Kitsap County, Washington
A summary of the first phase of work completed for a comprehensive flood hazard management plan being prepared for the Clear Creek basin.

Outfall Inventory Training Manual, Washington State Department of Transportation
A manual describing a systematic procedure for conducting outfall inventory activities for the Washington State Department of Transportation.

Yelm Creek Comprehensive Flood Hazard Management Plan, City of Yelm, Washington
Thorough evaluation of flooding problems and potential solutions throughout the Yelm Creek basin.

Clover Creek Basin Characterization Report, Pierce County, Washington
Analysis of surface water issues in the Clover Creek basin conducted as part of Pierce County's countywide basin planning program.

Comprehensive Flood Hazard Management Plan, Benton County, Washington
A plan to address flood hazard management issues in Benton County associated primarily with the Yakima River and to develop cost-effective alternatives for the mitigation of flooding problems.

Comprehensive Flood Hazard Management Plan, Clallam County, Washington
A several-hundred-page report on flooding problems and solutions for six rivers on Washington State's Olympic Peninsula.

Naval Submarine Base Bangor Family Housing Drainage Study, United States Navy
A report on a study to determine drainage problems at a military family housing development and suggest and prioritize solutions.

Sea-Tac International Airport Surface Water Management Plan, Port of Seattle, Washington
A comprehensive analysis of surface water quantity and quality at Seattle's international airport, with proposals for required improvements.

Basin Modeling Study, City of Puyallup, Washington
A report on detailed modeling of drainage basins in the City of Puyallup and proposed capital improvement projects to address problems identified by the modeling.

Comprehensive Flood Hazard Management Plan, Douglas County, Washington
A several-hundred-page report on flooding problems and solutions for a flood-prone urban area in Eastern Washington State.

Comprehensive Flood Hazard Management Plan, City of Raymond, Washington
A several-hundred-page report on flooding problems and solutions for a flood-prone coastal city in Washington State.

Comprehensive Surface Water Management Plan, Town of Steilacoom, Washington
A report on surface water problems and solutions for the Town of Steilacoom.

Northridge/Blakeley Ridge EIS/MDP Review, Surface Water Management Division, King County, Washington
Combined review comments from six separate environmental technology companies into a single, consistent document offering extensive review of environmental impact statements and master drainage plans prepared as part of the permit process for two proposed master developments. Our firm was lead contractor hired by the County for this review.

Cow Creek and Sieben Creek Drainage Master Plans, Clackamas County, Oregon
A report on flooding and water-quality problems and solutions for the basins of two urban creeks in the Portland metropolitan area.

South 356th Street Regional Detention Facility Feasibility Assessment, City of Federal Way, Washington
A report detailing alternatives for a regional detention facility to alleviate flooding in a rapidly developing urban area.

Phantom/Larsen Lake Phase IIB Restoration Project, City of Bellevue, Washington
A report on a two-year study of lake restoration measures. The report provided in-depth hydrologic and limnological analysis, conclusions on the effectiveness of the measures, and recommendations for future action.

Green Lake Phase IIC Restoration Project, Seattle Department of Parks and Recreation, Washington
A report on the effectiveness of restoration measures on water quality in an urban lake. The treatment being assessed was the first of its kind in Washington State.

Response of Green Lake (Seattle, WA) to Alum/Sodium Aluminate Treatment
An academic paper on lake restoration prepared for publication by our scientists and City of Seattle staff.

American Lake Phase I Restoration Project, Tacoma-Pierce County Health Department, Washington
A two-volume report on the findings of an investigation into the causes of toxic blue-green algal blooms in a heavily used urban lake and review of potential solutions.

Williams Lake Phase I Restoration Project, Idaho Division of Environmental Quality
A report on the findings of a Phase I investigation of water quality in a mountain lake and review of potential restoration measures.

Cottage Lake Phase I Restoration Project, Surface Water Management Division, King County Washington
A report on the findings of an investigation of water quality in an urban lake and review of potential solutions.

Lake Desire Phase I Restoration Project, Surface Water Management Division, King County Washington
A report on the findings of an investigation of water quality in an urban lake and review of potential solutions.

Priest Lake Nearshore Study, Idaho Division of Environmental Quality
A report on the findings of an investigation of lake water quality and review of potential restoration measures.

Blackman Lake Phase I Restoration Study, City of Snohomish, Washington
A report on the findings of an investigation of lake water quality and review of potential restoration measures.

Duck Lake Phase I Restoration Project, City of Ocean Shores, Washington
A report on an investigation of water quality in a largely man-made lake in a coast community in Washington State.

Wastewater Systems

HIGHLIGHT PROJECT: Initial Infiltration and Inflow Reduction Project Alternatives Analysis Report and Preliminary Design Report, King County, Washington
As an early step in a long-term program to reduce capital improvement costs through the large-scale reduction of sewer system infiltration and inflow (I/I), King County's Wastewater Treatment Division hired a Tetra Tech-led team to develop initial projects to demonstrate the effectiveness of the proposed program. Dan oversaw the development of two reports documenting the alternatives analysis and preliminary design for the project. He developed the preliminary document outlines, prepared background material, and integrated material prepared by staff from Tetra Tech, subconsultants and the client to assemble the finished reports.

HIGHLIGHT PROJECT: Lift Station No. 1 Facility Plan, Blaine, Washington
Tetra Tech's draft plan for a new 700,000-gallon storage facility at City of Blaine wastewater lift station required extensive updating to address the findings of a newly completed treatment plant facilities plan prepared by another firm. Dan worked with in-house engineering staff to incorporate the new technical findings into the document and answer extensive requests from the Washington Department of Ecology for additional detail.

Technical and Economic Evaluation of Nitrogen and Phosphorus Removal at Municipal Wastewater Treatment Facilities, Washington State Department of Ecology
A study report detailing the findings of evaluations to determine the cost and effectiveness of numerous approaches to retrofitting municipal wastewater treatment plants to provide removal of nutrients from the treated effluent. Results are presented in over 500 pages of text, including hundreds of tables and graphs summarizing findings.

2012 CSO Control Program Review, King County, Washington
An extensive series of detail technical memorandums reviewing and proposing updates for King County's 1999 CSO control program in coordination with renewal of the County's NPDES permit for the West Point Treatment Plant. The memorandums assess technology alternatives, planning-level design procedures and costs for a long-term countywide program for addressing combined-sewer overflows.

Bonneville Wastewater Treatment Improvements, U.S. Army Corps of Engineers
An engineering design report for improvements to upgrade the wastewater treatment facility at the Corps of Engineers' Bonneville Dam Project

Port Hadlock Wastewater Treatment Plant, Jefferson County, Washington
Numerous documents prepared under preliminary design efforts of a new wastewater treatment plant, including a solids handling evaluation, site evaluation, sewer plan, and biological assessment.

Location Study for Remote Wet-Weather Peak-Flow Storage Facility, City of Bellingham, Washington
A study to evaluate the economic, environmental and societal impacts and benefits of six potential sites for a 1.7-million-gallon storage facility to control wet-weather peak sewer flows and combined sewer overflows.

Preliminary Engineering Report for New Sewage Collection and Treatment System, Freeland Water and Sewer District, Washington
Preliminary engineering report for development of a wastewater collection and treatment system in a previously unsewered area. The proposed facilities include a septic tank effluent pumping collection system, a membrane bioreactor treatment plant, and reclaimed water reuse for irrigation on a tree farm property.

2010 CSO Reduction Plan Amendment and 2009 CSO Reduction Program Technical Documentation, Seattle Public Utilities, Washington
Two reports documenting a multi-year effort to assess the current performance and future needs of all combined sewer overflow facilities in the City of Seattle.

Oak Harbor Comprehensive Sewer Plan, City of Oak Harbor, Washington
An updated management plan for collection and treatment systems in an island city sharing its wastewater facilities with an adjoining U.S. Navy base.

Soos Creek Area Pump Station D and Pipeline Predesign, King County, Washington
Predesign for a new pump station and 5 miles of gravity trunk and force main in a formerly rural but fast-urbanizing area of King County.

Freeland Comprehensive Sewer Plan and Engineering Report, Island County, Washington
A wastewater collection, treatment and disposal plan for an unincorporated area previously served almost exclusively by septic systems and designated by Island County as a "non-municipal urban growth area."

Brightwater Conveyance System Predesign and Design, King County, Washington
Dozens of technical memoranda prepared as part of the predesign and design for the 16-mile-long conveyance system to King County's 36-mgd Brightwater Treatment Plant.

Wastewater Facilities Plan Update, City of Cannon Beach, Oregon
Facilities plan to upgrade a 20-year-old facultative lagoon treatment plant that uses wetlands treatment for effluent polishing.

Sanitary Sewer Collection System Master Plan, City of Beaverton, Oregon
A detailed assessment of an aging sewer system with over 200 miles of pipe and an outline of needed improvements.

2004 Wastewater System Plans, City of Snohomish, Washington
A three volume set of planning documents outlining conveyance and treatment needs and improvements, including one volume addressing combined-sewer separation issues and one providing an environmental review.

Sanitary Sewer Master Plan, City of Oregon City, Oregon
An update of a sanitary sewer master plan for a suburban city that had seen a 50 percent population growth since the completion of its previous master plan.

Vashon Island Wastewater Treatment Plant Facilities Plan, King County, Washington
A plan presenting improvements to an undersized, underperforming treatment plant whose discharge violations had resulted in a wide shellfish closure zone around its outfall to Puget Sound.

Vashon Island Sewer System Evaluation Survey, King County, Washington
A detailed evaluation of a community sewer system experiencing excessive infiltration and inflow.

Wastewater Facilities Plan, Miles Crossing Sanitary Sewer District, Oregon
A plan for providing wastewater collection and treatment for an unsewered, unincorporated community in Clatsop County, Oregon.

Wastewater Capital Facilities Plan, City of Marysville, Washington
An engineering report for a treatment plant upgrade to ensure permit compliance and to meet to meet new treatment plant discharge limitations.

Conveyance System Odor and Corrosion Abatement Comprehensive Plan, King County, Washington
A document outlining appropriate measures for controlling sewer conveyance facility odors and corrosion throughout King County.

Wastewater Treatment Plant Improvements, Phase 1 Predesign Report, City of Aberdeen, Washington
A predesign report for the first phase of treatment plant upgrades required under the terms of a consent decree.

South Snoqualmie Hills Sewer Plan, MGU Development, LLC
A comprehensive sewer plan to evaluate alternatives for serving a new 56-acre commercial development through connection to an existing sewer system.

Wastewater and Transportation Elements and Capital Facilities Plan of the Comprehensive Plan, City of Stanwood, Washington
State-required plans providing inventory, evaluation and future requirements for wastewater, transportation and other services in the City of Stanwood.

Appropriate Technology for Sewage Pollution Control in the Wider Caribbean Region, United Nations Environment Programme
A review of standard wastewater treatment technologies intended to be used as a handbook for preliminary technology review by consultants and government officials throughout the Caribbean.

Wilburton Siphon Upgrade Project Preliminary Design Report, King County, Washington
A preliminary design report for a project to upgrade a 2,000-foot sewage-conveying siphon; summarized from previously produced technical memoranda prepared by multiple authors.

Wastewater Facilities Plan, Makah Tribal Council, Washington
A report detailing alternatives for a new wastewater treatment system, including elements from the collection system through effluent disposal.

Wastewater Facilities Plan, Quileute Tribal Council, Washington
A report detailing alternatives for a new wastewater treatment system, including elements from the collection system through effluent disposal.

Wastewater Facilities Plan, City of Coburg, Oregon
A report detailing alternatives for a new wastewater treatment system, including elements from the collection system through effluent disposal.

Colonel Summers Park (Portland, OR); Pipe in a Park
A trade paper on public involvement in a sewage storage project prepared for publication by our engineers and City of Portland staff.

General Sewer Plan, City of Stanwood, Washington
A report detailing sewer system problems and proposed improvements in the City of Stanwood.

Hazard Mitigation

HIGHLIGHT PROJECT: Natural Hazard Mitigation Plan (2005) and Natural Hazard Mitigation Plan Update (2010), Snohomish County, Washington
To meet the requirements of the federal Disaster Mitigation Act, Snohomish County, Washington got together with 12 cities and 30 special purpose districts within its borders to prepare a two-volume natural hazards mitigation plan in 2005. Tetra Tech was hired to prepare the 600-page document. Dan took the submittals from the 43 agencies, including dozens of figures and hundreds of tables, and created a unified document to be submitted for state and federal approval. His efforts included editing to identify inconsistencies and establish a consistent tone, as well as developing a suitable document design for the many elements provided by the cities, districts and county. Five years later, the County hired Tetra Tech to update the plan, this time with 11 cities and 23 special purpose districts participating. Dan again integrated and edited the two volume updated plan.

Hazard Mitigation Plan, Hoh Indian Tribe
Tetra Tech prepared a hazard mitigation plan for the Hoh Indian Tribe in Washington. The plan addresses drought, earthquake, flood, landslide, severe weather, tsunami, volcano and wildfire.

Hazard Mitigation Plan, Kittitas County, Washington
Tetra Tech prepared a hazard mitigation plan for Kittitas County, Washington, with planning partners including four municipalities and seven special purpose districts. The plan addresses avalanche, dam failure, drought, earthquake, flood, landslide, severe weather, volcano and wildfire.

Hazard Mitigation Plan, Tehama County, California
Tetra Tech prepared a hazard mitigation plan for Tehama County, California, with planning partners including three cities and five special purpose districts. The plan addresses dam failure, drought, earthquake, flood, landslide, severe weather, volcano and wildfire.

Hazard Mitigation Plan, Siskiyou County, California
Tetra Tech prepared a hazard mitigation plan for Siskiyou County, California, with planning partners including seven municipalities and two special purpose districts. The plan addresses dam failure, drought, earthquake, flood, landslide, severe weather, volcano and wildfire.

Hazard Mitigation Plan Update, Gem County Idaho
Tetra Tech prepared an update to a previous hazard mitigation plan for Ada County, Idaho, with planning partners including one city and four special purpose districts. The plan addresses dam failure, drought, earthquake, flood, landslide, severe weather and wildfire.

Hazard Mitigation Plan Update, Ada County Idaho
Tetra Tech prepared an update to a previous hazard mitigation plan for Ada County, Idaho, with planning partners including six cities and 15 special purpose districts. The plan addresses dam failure, drought, earthquake, flood, landslide, severe weather, volcano, and wildfire.

Hazard Mitigation Plan Update, King County Flood Control District, Washington
Tetra Tech prepared an update to a previous hazard mitigation plan for the King County Flood Control District. The plan addresses flood, dam failure, earthquake, landslide, severe weather, volcano, and wildfire.

Hazard Mitigation Plan Update, Contra Costa County, California
Tetra Tech prepared an update to a previous hazard mitigation plan for Contra Costa County, California, with planning partners including six cities and 29 special purpose districts. The plan addresses dam failure, drought, earthquake, flood, landslide, severe weather and wildfire.

Hazard Mitigation Plan Update, Humboldt County, California
Tetra Tech prepared a hazard mitigation plan for Humboldt County, California, with planning partners including seven cities and 18 special purpose districts. The plan addresses dam failure, drought, earthquake, fish losses, flood, landslide, severe weather, tsunami and wildfire.

Crescent City/Del Norte County Hazard Mitigation Plan, City of Crescent City, California
Tetra Tech prepared a hazard mitigation plan for Del Norte County, on the north California coast. The plan addresses dam failure, earthquake, flood, landslide, severe weather, tsunami, and wildfire.

Hazard Mitigation Plan Update, City of Snoqualmie, Washington
Tetra Tech prepared a hazard mitigation plan for the City of Snoqualmie, in the foothills of the Cascade Mountains. The plan addresses earthquake, flood, landslide, severe weather, volcano, and wildfire.

Hazard Mitigation Plan (2005) and Hazard Mitigation Plan Update (2011), City of Roseville, California
Tetra Tech prepared a hazard mitigation plan for the City of Roseville in Central California. The plan addresses drought, earthquake, flood, landslide, human-caused hazard, health risk, wildfire, and severe weather. Tetra Tech performed an update for this plan in 2011.

Natural Hazard Mitigation Plan (2006) and Natural Hazard Mitigation Plan Update (2011), Whitman County, Washington
Tetra Tech prepared a hazard mitigation plan for Whitman County in Eastern Washington, all eight cities in the county, and three of its special purpose districts. The plan addresses drought, earthquake, flood, volcano, wildfire, and severe weather. Tetra Tech performed an update for this plan in 2011.

Facilities

HIGHLIGHT PROJECT: **Energy Audits for National Wildlife Refuges, U.S. Fish and Wildlife Service**
Tetra Tech conducted and documented comprehensive energy audits for 27 National Wildlife Refuges in Region 8 and 13 in Region 1. Reports were prepared by multiple Tetra Tech staff members and submitted over a short time period. Dan helped developed a report template that could be completed quickly for each refuge and performed document QA review for most of the reports prior to submittal to the client.

Oregon Hatchery Research Center, Oregon Department of Fish and Wildlife
Multiple documents related to a fast-track project to convert an existing fish hatchery into a research facility to investigate hatchery practices.

Chief Joseph Dam Hatchery Conceptual Design, The Confederated Tribes of the Colville Reservation
Conceptual design document for a new hatchery developed as an integral part of the hatchery genetic management plan for restoring chinook salmon runs in the Okanogan Valley.

Cedar River Sockeye Hatchery Program Documents, Seattle Public Utilities, Seattle, Washington
Technical analyses outlining criteria, protocols and capacity requirements for operation of a hatchery intended to produce up to 34 million sockeye fry annually.

North Operating Base Waterline Settlement and Rooftop Parking Slab Repair Predesign Report, King County Department of Metropolitan Services, Washington
A predesign report on building and site improvements required to address water-related problems at a transit agency operating base.

East and South Operating Base HVAC Equipment Assessment and Predesign Report, King County Department of Metropolitan Services, Washington
An assessment of all heating, ventilation, and air-conditioning equipment at two transit agency bases, with identification of equipment in need of replacement and an evaluation of replacement alternatives. The assessment was described in a two-volume report and the predesign report was presented in four volumes.

Planning and Environmental

HIGHLIGHT PROJECT: **City of Richland Comprehensive Plan and Final Environmental Impact Statement, City of Richland, Washington**
Using technical documents prepared for a draft environmental impact statement and working closely with planners and client representatives, Dan wrote and produced a final EIS and a Comprehensive Plan for the City of Richland. Both pieces meet state requirements for such documents but are written in a style that is accessible to the general

public. The plan addresses transportation, land use, economic development, utilities, capital facilities, housing, and financing.

Wetland Mitigation Banking Program, Pierce County Water Programs, Washington
Documentation of a plan to develop a wetland mitigation bank to mitigate impacts of county capital improvement projects in urban Pierce County.

Vashon Wastewater Treatment Plant Upgrade Environmental Assessment, Biological Assessment and Essential Fish Habitat Assessment, King County, Washington
Environmental review documents for a project to upgrade a wastewater treatment plant and extend an existing outfall into Puget Sound.

Lewis and Clark Bridge Rehabilitation Biological Assessment, Washington State Department of Transportation
A review of potential biological impacts from a proposed rehabilitation of a bridge spanning the Columbia River between Oregon and Washington.

Peters Creek Restoration Phase II Biological Assessment, City of Redmond, Washington
A review of potential biological impacts from a proposed project to restore a portion of Peters Creek.

Salmon Creek/Fairgrounds Regional Transportation Plan, Clark County, Washington
Evaluation of traffic and road conditions in a developing area of an urban county. Document required the assembly and editing of material written by several staff members in two states.

Regional Center and Tek Station Carrying Capacity Analysis, City of Beaverton, Oregon
Analysis of the carrying capacity of transportation and utility systems in heavily developed urban centers.

Transportation Element and Capital Facilities Plan of the Comprehensive Plan, Douglas County, Washington
State-required plans providing inventory, evaluation and future requirements for transportation and other services in Douglas County.

Wastewater and Transportation Elements and Capital Facilities Plan of the Comprehensive Plan, City of Stanwood, Washington
State-required plans providing inventory, evaluation and future requirements for wastewater, transportation and other services in the City of Stanwood.

Roads

Road Standards, Kitsap County, Washington
A document of countywide standards for road development and improvement.

Canyon Road Traffic Improvement Study, City of Ellensburg, Washington
A report on potential improvements to a congested roadway. The report described present conditions based on a traffic study, projected future growth, analyzed possible solutions and costs, and recommended a preferred plan.

Bakerview Road Improvement Project, City of Bellingham, Washington
A compilation of design descriptions from multiple subcontractors and our engineers on an improvement project for a major arterial in the urban Bellingham area.

Value Engineering

As a special editorial assistant, Dan attended value engineering workshops for the following projects and prepared reports documenting the workshops' activities, findings and recommendations:

- Atlantic/Central Base Parking Garage, King County, Washington.
- Tanner Creek Stream Diversion, Phase 2, City of Portland Bureau of Environmental Services, Oregon.
- Detroit/Idanha Regional Sewer Project, Cities of Detroit and Idanha, Oregon.

- Groundwater Pump Station Improvements, City of Portland Bureau of Water Works, Oregon.
- Newport Wastewater Conveyance and Treatment Project, City of Newport, Oregon.
- Water Repurification Project, San Diego Metropolitan Wastewater Department, California.
- Lake Hodges Wastewater Conveyance, San Diego Metropolitan Wastewater Department, California.
- North Metro Interceptor Diversion Project, San Diego Metropolitan Wastewater Department, California.
- Citywide Nitrogen Management Plan, New York City Department of Environmental Protection.
- Croton Water Treatment Plant, New York City Department of Environmental Protection.
- Wards Island Water Pollution Control Plant, New York City Department of Environmental Protection.
- Hunts Point Water Pollution Control Plant, New York City Department of Environmental Protection.
- Manhattan District 4/4A/7 Garage, New York City Department of Sanitation.
- Children's Center, New York City Administration for Children's Services.
- Electronic Toll Collection System, Port Authority of New York and New Jersey.
- Outerbridge Crossing Coating Replacement and Bridge Coatings Master Plan, Port Authority of New York and New Jersey.

ILLUSTRATIONS AND DOCUMENT DESIGN

HIGHLIGHT PROJECT: Barton, Murray, Magnolia and North Beach CSO Project, King County, Washington
Tetra Tech worked with King County to develop recommendations for controlling combined sewer overflows at four locations along Puget Sound in Seattle. Public interest in these projects was high, and required extensive outreach and many public meetings. Dan prepared hundreds of graphics for use in the public and agency process. These graphics were essential for explaining the complex considerations involved in selected optimal alternatives for this important projects.

Soos Creek Area Pump Station D and Pipeline Predesign
Prepared dozens of graphics for use in public involvement activities and predesign workshops, overlaying options for new pump station sites and 5 miles of new gravity trunk and force main alignment on annotated aerial photos.

City of College Place Wastewater Treatment Plant, City of College Place, Washington
Created a 4-by-6-foot visitors' display for the treatment plant administration building explaining the plant's facilities and processes.

Lake Fenwick Public Area Interpretive Sign, City of Kent, Washington
Designed and illustrated a 40-by-40-inch sign explaining restoration measures being taken to improve the water quality of Lake Fenwick.

Lake Stevens Public Area Interpretive Sign, City of Lake Stevens, Washington
Wrote, designed, and illustrated a 30-by-30-inch sign explaining restoration measures being taken to improve the water quality of Lake Stevens.

"Developing a Long-term Plan to Address Flood Problems" A Citizens' Guide to the Lower Nooksack River Comprehensive Flood Hazard Management Plan, Whatcom County, Washington
Created a special design for this report intended for the general public to give the document a highly user-friendly look and feel. Created illustrations and charts to enhance readers' understanding.

City of Richland Comprehensive Plan and Final Environmental Impact Statement, City of Richland, Washington
Designed a clean, attractive format for a public-distribution Comprehensive Plan.

Lower Nooksack River Comprehensive Flood Hazard Management Plan, Whatcom County, Washington
Developed a unique format integrating text and graphics in a smooth-flowing document explaining for the public the concepts of flood hazard management and the findings and recommendations that came for two years of technical analysis.

Aquatic Vegetation Management Plan Citizens' Manual, Department of Ecology, Washington
Edited for the lay reader, prepared graphics and provided preliminary page layout for a user's manual on the preparation of plans to manage aquatic vegetation.

High Water Marks, Northwest Floodplain Management Association
Designed and edited a four-page trade association newsletter with photos.

Duck Lake Fact Sheets, City of Ocean Shores, Washington
Edited, laid out, and illustrated a series of four two-sided fact sheets as part of a public-education campaign on factors contributing to degraded lake water quality.

Dan also has created thousands of maps and other graphics to illustrate Tetra Tech reports, including the following:

- Coal Creek Stabilization Program, City of Bellevue, Washington
- Comprehensive Stormwater Drainage Plan and Sewer Plan, City of Oak Harbor, Washington
- Sanitary Sewer Collection System Master Plan, City of Beaverton, Oregon
- Stormwater Management Plan, City of Medford, Oregon
- Sewer Lake Line Replacement Project, City of Mercer Island, Washington
- Comprehensive Drainage Plan, City of Auburn, Washington
- 2004 Wastewater System Plans, City of Snohomish, Washington
- Vashon Island Wastewater Treatment Plant Facilities Plan, King County, Washington
- Wastewater Capital Facilities Plan, City of Marysville, Washington
- Wastewater Treatment Plant Improvements, Phase 1 Predesign Report, City of Aberdeen, Washington
- South Snoqualmie Hills Sewer Plan, MGU Development, LLC
- Lift Station No. 1 Facility Plan, City of Blaine, Washington
- Comprehensive Stormwater and Flood Hazard Management Plan, Island County, Washington
- Peters Creek Habitat and Geotechnical Investigation, City of Redmond, Washington
- Comprehensive Flood Hazard Management Plan, City of Stanwood, Washington
- Comprehensive Surface Water Facility Plan—Phase I, City of Federal Way, Washington
- Comprehensive Flood Hazard Management Plan, Clallam County, Washington

EXPERIENCE PRIOR TO TETRA TECH

Writer/Reporter/Editor, West Seattle Herald/White Center News, Seattle, Washington
Held numerous positions over the course of several years at these weekly newspapers: intern reporter, January-February, 1987; special-assignment writer, hired to co-author a 288-page community history, February-June 1987; editor, September 1988-January 1992; production manager and columnist, January-September 1992. In each of the three years Dan was editor, these newspapers placed in the top three for general excellence among papers their size in statewide competitions.

Assistant Editor, The Progress, Seattle, Washington
Held the title of assistant editor and worked as the only full-time, on-staff writer at this weekly newspaper reporting the news of the Catholic Archdiocese of Seattle, which covers all of Western Washington, February-September 1988. In addition to writing news and features, Dan took on the diverse tasks of photography, copy editing and paste-up.

Reporter, Highline Times/Des Moines News, Seattle, Washington
Worked as a general-assignment and beat reporter, June 1987-February 1988. In addition to writing general feature and spot news articles, specific beats included schools, police, and city councils for two small, suburban cities. For the year that Dan worked at these twice-weekly newspapers, they were named best overall newspapers of their size in a statewide competition.

Aeronautical Engineer, The Boeing Company, Seattle, Washington
Oversaw the production of standards manuals for government clients and internal documents and reports. Performed engineering analysis, prepared flight tests, developed flight simulator models; August 1980-May 1986.

Promotional Writing and Graphics
Prepared posters, fliers, programs, press releases and biographies for musical and theater groups in the Seattle area.

Agenda
Item #3

DIAMANTE
PUBLIC SECTOR GROUP

A part of Diamante Partners, LLC
101 Parkshore Drive, Suite 100
Folsom, CA 95630
916-932-2124 Phone
916-265-0329 Fax
www.diamantepartners.com

Response to Request for Qualifications to *Provide a Standard of Coverage Study for*

Montecito Fire Protection District

May 31, 2012

May 31, 2012

Mr. Chip Hickman
Fire Chief
Montecito Fire Protection District
595 San Ysidro Road
Santa Barbara, CA 93108

Dear Chief Hickman:

Diamante Partners, LLC (Diamante) is pleased to submit our Statement of Qualifications for professional consulting services to the Montecito Fire Protection District (MFPD) for the development of a Standard of Coverage (SOC) study.

The Diamante Team is comprised of very experienced and talented former Fire and Emergency Services leaders and tacticians with extensive on-the-ground and policy background in fire service/EMS management and organized labor. Individually and collectively, our team represents many years of applicable experience garnered from extensive work in the public safety & government management, homeland security, fire and rescue and EMS fields that have included spearheading several fire department consolidations and a comprehensive understanding of the needs of local and state government. Additionally, Diamante has unrivaled experience working with California Independent Special Districts such as Novato Fire Protection District, Sacramento Metropolitan Fire Protection District and the Fire Districts Association of California.

All of the members of the Diamante Team have successfully lead complex organizations at every level of government, facilitated work-groups and strategic planning sessions, developed risk assessments, advised government leaders, developed reports and delivered briefings or testimony in front of government bodies. The experience and knowledge that Diamante Partners brings to the MFPD will serve to ensure for positive collaboration and facilitation through a streamlined and enhanced work-effort of reviewing existing local fire and EMS departments, working with stakeholders and charting a series of recommendations that create an environment of progressive growth. In particular, given our experience with the development of the Fire and Fire-based EMS SOCs and Master Plans, we have continually built strong relationships with local, regional Statewide and federal stakeholders while also understanding the complexities of the providing fire service and mutual aid specifically in the Santa Barbara County area with such on-going realities as wildland-urban interface fire issues and evacuations.

We believe you will find that the experience of the Diamante Team and their understanding of the local governance, public safety management, government continuity, hazard identification and mitigation, the complexities of fire and EMS organizations, combined with a thorough knowledge of local, state and federal fire and emergency services regulations, standards, codes and guidelines and regulations make us well-suited to provide the MFPD with consulting services.

We look forward to the opportunity to speak with you regarding our experience and qualifications to work with the MFPD on this very important project. If you have any questions or comments regarding our proposal, please do not hesitate to contact me at the below office number, (916) 932-2124 or (916) 870-6306.

Sincerely,

M. Reginald B. Salvador
Managing Director
Diamante Partners, LLC
rsalvador@diamantepartners.com
(916) 932-2124 office
(916) 265-0329 fax

BACKGROUND INFORMATION

Founded in 2007, Diamante Partners is a Limited Liability Corporation that provides public and private sector entities with comprehensive assessment and planning, business & government continuity planning, training, operational support and exercise services. Diamante is comprised of an unmatched team of professionals with acclaimed and professionally recognized knowledge and proven experience in government planning, including fire, emergency services and EMS management, continuity planning and assessments, research, analysis and group facilitation that will work with the Montecito Fire Protection District (MFPD) and other key regional stakeholders to produce a SOC study.

Most recently, Diamante worked with the County of Santa Barbara to assist the County Board of Supervisors in developing and implementing a coordinated response to a State of Emergency. Additionally, Diamante continues to assist the Orfalea Foundation with its Aware and Prepare Disaster Preparedness initiative. This community initiative also resulted in the building and opening of the brand new Santa Barbara County Emergency Operations Center.
Based in Folsom, CA, Diamante Partners, LLC provides public and private sector entities with comprehensive management, planning and operational support services. From public policy, emergency management, EMS-fire services, and public safety to environmental, land-use, natural resources, agricultural and governmental concerns, Diamante provides its clients with the enhanced ability to comprehensively achieve its goals in the most cost effective and efficient manner.

Diamante specializes in bridging the inter-dependency between the public and private sectors. Specifically, Diamante provides clients with intimate intelligence related to governmental processes as well as focused operational services support. Diamante works with local, State and federal governmental entities, business entities in the agriculture, energy, public safety, infrastructure, real estate and financial sectors as well as non-profits and philanthropic foundations. Diamante also fully understands the operational, financial and political nuances of California Independent Special Districts. Diamante team members have worked extensively with special districts such as Novato Fire Protection District, Sacramento Metropolitan Fire Protection District and the Fire Districts Association of California.

Diamante has never been involved in any litigation activities and does not have conflicts of interest that would preclude Diamante from preforming consulting services on behalf of the MFPD. In February 2012, former Diamante Founding Partner and ~~former~~ Managing Director Mark Ghilarducci was appointed by Governor Brown and currently serves as Secretary of the California Emergency Management Agency (CalEMA) which is responsible for overseeing and coordinating emergency preparedness, response and recovery in the State; and manages the largest public safety mutual-aid system in the nation. As a result of Secretary Ghilarducci's appointment, Diamante has re-structured its ownership to allow for possible designation as a Disadvantage Business Enterprise (DBE) given Mr. Reggie Salvador's (Diamante Founding Partner and Managing Director) ethnic background of Asian-American/Pacific Islander.

GENERAL QUALIFICATIONS

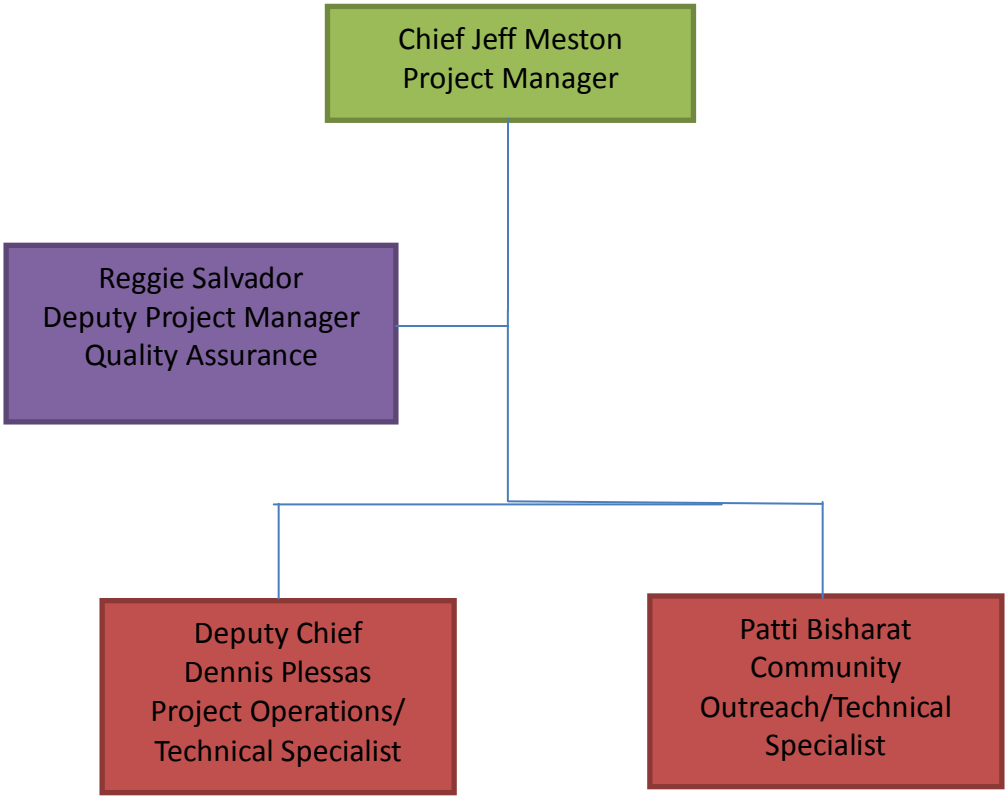
Diamante specializes in providing management consulting and operational support services and is comprised of very experienced and talented former Fire and Emergency Services leaders and tacticians with proven hands-on background in fire service/EMS/Emergency Management and organized labor. Individually and collectively, our team represents many years of applicable experience garnered from extensive work in the emergency & government management, homeland security, fire and rescue and EMS fields that have included successfully spearheading several fire department consolidations as well as numerous community and organizational master/strategic plans.

We possess a comprehensive understanding of the needs of local and state government. All of the members of the Diamante Team have successfully lead complex organizations at every level of government, facilitated work-groups and strategic planning sessions, performed assessments, research and analysis, have advised government leaders, developed reports and delivered briefings or testimony in front of government bodies. For a more in-depth look at some of Diamante's projects, please see the Study References section in this Statement of Qualifications.

SPECIFIC QUALIFICATIONS

Project Team

We have selected key individuals from within and associated with our firm, with unique talents and experiences to deliver the kind of service that the MFPD seeks. The Diamante Team that has been chosen for this project have worked extensively with key public safety agencies, in both Nevada and California, with such organizations as the Washoe County and Truckee Meadows, Nevada, Fire Protection Districts, the California Emergency Management Agency (Cal EMA), the California State Office of the Fire Marshal (SFMO), the California Department of Forestry and Fire (Cal Fire), the California Professional Firefighters (CPF) and with numerous California Independent Special Districts such as Novato Fire Protection District, American River Fire Protection District, Sacramento Metropolitan Fire District and Fire District Association of California. These individuals are intimately familiar with the operational, financial and political realities and issues facing independent fire districts and will form a seamless Team that will interface with the MFPD and associated stakeholders as a single, integrated entity



Project Manager and Subject Matter Expert: Chief Jeff Meston

Jeff Meston retired as the Fire Chief for the Novato Fire Protection District after serving in public service for over thirty years. He has worked in both emergency management and executive leadership capacities. Chief Meston oversaw an independent special district established by the Marin County Board of Supervisors in July 1926. The District serves an area of 71 square miles and a population of 60,000 citizens and is governed by a five member Board of Directors. Chief Meston has directly participated in all-risk emergency and emergency service planning, including fire protection, emergency medical services, fire prevention and investigation services. For several years, he served as a master instructor for the California State Fire Marshal for Master Plan Development and Standard of Deployment Coverage. ***Chief Meston will serve as the Project Manager and lead the assessment and will oversee all initial and final aspects of project operations for the SOC study.***

Deputy Project Manager and Quality Assurance: Reggie Salvador

Mr. Reggie Salvador is a founding partner and Managing Director of Diamante Partners, LLC. Mr. Salvador previously served as Deputy Cabinet Secretary where he had direct oversight of six state agencies and twenty-five departments including the Governor's Office of Emergency Services (California Emergency Management Agency), California Highway Patrol, Department of Forestry and Fire Protection (CalFIRE), California National Guard, Department of Housing and Community Development, Department of General Services, Business, Transportation and Housing Agency and State and Consumer Services Agency. He was also responsible for the

development, implementation and on-going evaluation of major policy initiatives for the Governor in the areas of public safety (emergency services, law enforcement, fire, etc.) labor, personnel administration, housing, and energy. ***Mr. Salvador will ensure for quality assurance throughout the project and will be the principal Administrative point of contact for the MFPD.***

Project Operations and Technical Specialist: Deputy Chief Dennis Plessas

Deputy Chief Plessas, formally with the American River and Sacramento Metropolitan Fire Protection Districts, has been personally involved on the management team that facilitated five successful fire district mergers/consolidations, including the expansion of basic and advanced life support delivery programs; enhancement of the public safety telecommunications and data processing systems and development and implementation of regional agency partnerships that includes restructuring of local government relationships and policies. ***Chief Plessas will provide technical expertise to the SOC study.***

Community Outreach and Technical Specialist: Patti Bisharat

Patti Bisharat, formally the Assistant City Manager for Public Safety with the City of Sacramento has over 25 years of diverse experience in local government to include finance, public safety, public and media information, transportation and governmental relations. Ms. Bisharat is recognized as an innovator capable of creating new ideas, identifying solutions, developing strategies and executing implementation to desired outcomes. ***Patti will provide technical expertise associated with community outreach, administration and data gathering/analysis.***

Approach to Quality Assurance

Establishing a close working relationship is important to us and close collaboration with officials from the MFPD will be a key part of our normal process. Our Team will work closely with the MFPD, Santa Barbara County and other designated key stakeholders. Even though we will operate as supplemental staff and work to be part of the overall team, we will fully apply our individual and collective experience, knowledge, and perspective to the maximum advantage of the MFPD. In addition, wherever possible, we will incorporate stakeholders in the effort of data and information collection. Our expertise in the areas of all-hazards planning, fire and emergency service consolidation, labor/management facilitation, hazard assessment, training, exercise development and delivery, homeland security, public safety, emergency management, strategic planning, inter-jurisdictional collaboration, as well as command, control and coordination methodologies (i.e.: ICS and NIMS) will be energetically applied to the project.

RESUMES

Chief Jeff Meston

Jeff Meston recently retired as the Fire Chief for the Novato Fire Protection District after serving in public service for over thirty years. He has worked in both emergency management and executive leadership capacities. Chief Meston oversaw an independent paid/volunteer special fire district established by the Marin County Board of Supervisors in July 1926. The District serves an area of 71 square miles and a population of 60,000 citizens and is governed by a five member Board of Directors.

SUMMARY OF EXPERIENCE

- Over 30 years of Fire Service and Fire Prevention
- Extensive background in urban-wildland interface planning and code development.
- Recognized leadership in the development of strategic plans and programs
- Extensive background in Risk Analysis, Master Plan Development and Standard of Coverage Plans

Chief Meston has directly participated in all-risk emergency and nonemergency service planning, including fire protection, emergency medical services, fire prevention and investigation services. In addition, Meston served for several years as a master instructor for the California State Fire Marshal for Master Plan Development and Standard of Deployment Coverage and facilitated his agency being the first in Marin to adopt an Urban-Wildland Interface Code by local ordinance. This ordinance is intended to reduce risk to life and structures from wildland fire while providing firefighters time to provide fire suppression when safe to do so.

Chief Meston served on a number of state committees including the State Fire Marshals committee to develop the California Fire Service Strategic Plan and Stakeholder Survey as well as numerous training and curriculum development committees.

Mr. Reggie Salvador

With a recognized ability to master complex issues involving federal and state laws, complicated regulatory frameworks, and legal issues in high intensity settings, M. Reginald Salvador brings extensive experience in organizational development and management to both the public and private sectors. Mr. Salvador collaborates with executive management from various local, State and federal agencies and departments, private sector, non-governmental organizations and other community-based stakeholders to develop and implement emergency management projects and programs. Mr. Salvador also provides strategic advisory services to public and private sector entities in the areas of crisis and emergency management and communications, economic and procurement strategy and implementation, public policy analysis and government affairs.

Mr. Salvador specializes in taking a regional approach to assessing local and State regulations, statutes and other legislative mandates. This regional approach to public policy enables clients promote, develop and implement effective and efficient emergency management programs.

In the aftermath of Hurricane Katrina, the most devastating natural disaster in U.S. History, Mr. Salvador provided strategic direction to the Louisiana Governor's Office and its respective Cabinet Agencies and Departments in analyzing all gubernatorial policy initiatives post-hurricane for regional implementation. He also surveyed the needs of the Counties of Charlotte, Hardee and DeSoto on behalf of the Florida Tri-County Long-Term Recovery Committee in the aftermath of Hurricanes Charley, Francis, Ivan and Jeanne during the unprecedented 2004 hurricane season in development of its recovery strategy. Aside from public sector clients, Mr. Salvador also represents various private sector firms including portfolio companies of private equity firms as well as communications, pharmaceutical (where he surveyed internal pandemic preparation for a worldwide manufacturer of dermatological and aesthetics medicine), technology and insurance companies.

Mr. Salvador previously served as Deputy Cabinet Secretary where he had direct oversight of six state agencies and twenty-five departments including the Governor's Office of Emergency Services, Office of Homeland Security, California Highway Patrol, Department of Forestry and Fire Protection, California National Guard, Department of Housing and Community Development, Department of General Services, Business, Transportation and Housing Agency and State and Consumer Services Agency. He was also responsible for the development, implementation and on-going evaluation of major policy initiatives for the Governor in the areas of public safety (emergency services, law enforcement, fire, etc.) labor, personnel administration, housing, and energy.

SUMMARY OF EXPERIENCE

- Former Deputy Cabinet Secretary with oversight of 6 state agencies and 25 departments including CalFIRE, CalEMA, CHP, CalTRANS
- High level and extensive experience in policy and strategic initiative development
- Demonstrated experience in supporting disaster response and recovery efforts and long-term economic development.

Ms. Patti Bisharat

Patti Bisharat has over 25 years of diverse experience in local government to include finance, public safety, public and media information, transportation and governmental relations. Ms. Bisharat is recognized as an innovator capable of creating new ideas, identifying solutions, developing strategies and executing implementation to desired outcomes.

Ms. Bisharat currently serves as a member of the executive team, office of the city manager, for a large metropolitan city in California serving as the Director of Governmental Relations. As such, she manages state, federal and local legislative activities for a municipal government with a population base exceeding 460,000. On the local level, she is responsible for the development and implementation of local legislative ordinances. In this capacity, she works closely with elected officials and other members of the executive management team on complex/controversial issues. In addition, she is responsible for citywide communication and media functions as well as citywide policy development and analysis.

Ms. Bisharat has a proven track record in community outreach and communication/media relations. She managed a first-in-California comprehensive community outreach effort to engage residents which included multi-lingual forums and materials, surveys and facilitated community workshops. She has successfully developed and implemented strategies for passage of local ballot initiatives. Her efforts in developing an innovative joint use of facilities program with local school districts earned her the California Cities Helen Putnam Award for Excellence.

Most recently, she facilitated the development of a joint emergency preparedness website to serve a community of over 1.5 million. She serves on a regional emergency operation center management team. As a certified facilitator and trainer, Ms. Bisharat has developed and delivered training for a diverse workforce at both the supervisor and management level as well as facilitated senior executive retreats and strategic planning forums.

Ms. Bisharat holds a Bachelor of Science degree in business administration with a marketing emphasis from California State University, Sacramento. She earned a Master of Public Administration degree graduating with cum laude honors from Golden Gate University, San Francisco. In addition, she is certified in the National Incident Management System and a graduate of the Sacramento Chamber of Commerce Leadership Program. Ms. Bisharat served for three years in the United States Army earning recognition from the Inspector General for outstanding service and received an honorable discharge with Award of Merit. Ms. Bisharat was a member of the Consumer River College Foundation and currently sits on the Board of Directors of Gifts to Share Inc. a non-profit organization supporting local charities and community based organizations.

Mr. Dennis Plessas

Chief Plessas fire service career has spanned over 30 years while serving in many divisions and capacities beginning with the Arcade Fire District in 1975. He has held the rank of Firefighter, Captain, Battalion Chief, Division Chief, Assistant Chief, and Deputy Chief, assigned to the Office of the Fire Chief as Chief of Staff.

As a results-oriented leader, Chief Plessas has made many contributions to the fire service that has shaped the future of the Sacramento regional public safety services. He has been personally involved in management capacity in five successful mergers/consolidations of local fire districts.

SUMMARY OF EXPERIENCE

- Over 30 years of Fire Service and Fire Service Management.
- Demonstrated experience in Organizational Assessments, Mergers and Consolidations
- Facilitated development of strategic plans and programs

His responsibilities have included managing the Office of the Fire Chief including direct oversight of our $140 million budget and relationships with governmental and community leaders throughout the region. He spearheaded the design and development of the Sacramento Regional Communications Radio System (SRRCS) 800MHz trunked radio network and completion of a Regional Emergency Operation Center. In addition, working extensively with various stakeholder groups, he was involved with the establishment of a Region Threat Assessment Center.

Chief Plessas also participated on the management team that facilitated five successful fire district mergers/consolidations, including the expansion of basic and advanced life support delivery programs; Enhancement of our Sacramento area public safety telecommunications and data processing systems; Creation of public information (PIO) and Community Services outreach program and Development and Implementation of regional agency partnerships that includes restructuring of local government relationships and policies

Chief Plessas holds an Associates of Arts Degree in Fire Technology and a Management Certification and was elected to the Board of Directors with the Sacramento County Fire Protection District (Division 6) in 1998. His term concluded upon the reorganization (Annexation) by the Sacramento Metropolitan Fire District in December 2000.

STUDY REFERENCES

Development of a Comprehensive Fire and Fire-Based Emergency Medical Services Master Plan (Budget: < $100,000.00)
2009-2010

Diamante was selected by Washoe County, Nevada to develop a comprehensive Fire and Fire-based Emergency Medical Services Master Plan for the unincorporated areas of Washoe County governed by the County Commission. The master plan includes risk analysis, assessments and recommended methods of improving and/or enhancing existing service delivery and, at a minimum, will include recommendations related to potential consolidations, service equity, opportunities to achieve economy of scale, and enhancements to governance.

The process to develop the master plan was extremely inclusive including public meetings and interviews with stakeholders such as Community Advisory Boards, homeowners groups, elected officials, labor unions, volunteer fire departments and others. As a part of developing the Master Plan, **Diamante developed three (3) separate Standards of Coverage Studies for**:

1) *the Sierra Fire Protection District;*
2) *the Truckee Meadows Fire Protection District; and*
3) *the Volunteer Fire Agencies located within Washoe County.*

In addition, Diamante reviewed the Fire –Based EMS delivery system and its relationship to the third party private EMS/ALS system.

Contact:
(Previous)
Kurt Latipow, Fire Service Coordinator Washoe County, Nevada
Office of the County Manager
1001 East 9th Street
Reno, NV 89520
(775) 846-4445

(Current)
Kurt Latipow, Fire Chief
City of Lompoc, Santa Barbara County
115 South G Street, Lompoc, CA 93436
(805) 736-4513

Development of a Fire Prevention Fee Schedule and Collection Training (Budget: < $30,000.00) 2010

Diamante developed a fee schedule related to the provision of fire prevention related fees for the Truckee Meadows Protection District and delivered training to selected personnel who would be serving customers and collecting fees. Diamante developed the fire prevention fee schedule through a series of concurrent and consecutive actions that included on-the-ground assessments and review of existing procedures and documentation. Diamante established a baseline of operation that included activities, deliverables and a schedule for completion of activities, roles and responsibilities. Diamante also conducted an independent assessment of current operating procedures and identified gaps associated with the fire prevention related services and cost recovery procedures. All of the operational analysis, gap analysis and planning documents were used to develop the fire prevention/assessment fee schedule and cost recovery program.

Contact:
(Previous)
Kurt Latipow, Fire Service Coordinator Washoe County, Nevada
Office of the County Manager
1001 East 9th Street
Reno, NV 89520
(775) 846-4445

(Current)
Kurt Latipow, Fire Chief
City of Lompoc, Santa Barbara County
115 South G Street, Lompoc, CA 93436
(805) 736-4513

City and County of Sacramento- Evacuation Plan (Budget: > $100,000.00) 2008-2009

Diamante team members participated in the development of a comprehensive Citywide and Countywide Evacuation Plan for the City and County of **Sacramento, California (UASI Region Tier II)**. A planning team, made up of City and County of Sacramento Emergency Services Division staff met with numerous stakeholders, including County Departments, Regional Transit and other transportation providers, the (regional) Operational Area Care and Shelter work group, service providers to special needs communities, long-term care facilities, hospitals, and the regional office of the U.S. Department of Homeland Security. From these groups, other groups, and documented literature on evacuation best practices, the planning team elicited input and gained information, maps, tables, and department specific strategy. The completed evacuation plan represents a compilation of the best practices, available resources and evacuation strategies that were derived from those meetings.

Contact:
Mr. Rick Martinez
City and County of Sacramento
Chief of Emergency Services
Sacramento Office of Emergency Services
3720 Dudley Boulevard
McClellan, CA 95652
(916) 871-6565

Santa Barbara County Office of Emergency Services- Board of Supervisors Facilitated Discussion on Emergency Response (Budget: <$10,000.00) April 2012

Diamante worked extensively with the Santa Barbara County Board of Supervisors to facilitate a Public Meeting noticed Governing Board Workshop on emergency response. In conjunction with the Santa Barbara County Office of Emergency Services, Diamante developed pre- and post-event strategies as well as incident command structure (ICS)-based operational

considerations. Additionally, Diamante worked with Santa Barbara County officials (both elected and non-elected) specifically on how executive leadership (i.e.: Board of Supervisors) differed from first-responder and department roles (Public Works, Transportation, OES, etc.)

Contact:
Chief Mike Dyer
Fire Chief and Interim Emergency Operations Chief
Santa Barbara County Office of Emergency Management
4408 Cathedral Oaks Road
Santa Barbara, CA 93110
(805) 681-5526

Orfalea Foundation – Aware and Prepare (Budget: > $100,000.00) 2007 to Present

Diamante currently works with the Orfalea Foundation on the project to enhance emergency preparedness capabilities within the Santa Barbara County Operational Area. Based upon analysis and assessments conducted, assisted by Diamante team members, seven priority theme areas for emergency preparedness improvement have been incorporated as the funding areas of the *Aware & Prepare Initiative*.

Aware & Prepare is an Orfalea Fund Initiative in partnership with Santa Barbara County Office of Emergency Services (SBC OES), and local foundations. The mission is to create a community partnership to enhance capabilities to mitigate, prepare for, respond to, and recover from emergencies and disasters within the Santa Barbara County Operational Area. Public-private partnership was also leveraged to in support of the construction of a new Operational Area Emergency Operations Center (EOC) with over $2 million in private funding. Santa Barbara County broke ground on the new EOC in February 2010.

The highest priority for *Aware & Prepare* is Public Education and Awareness and for the past several years the initiative has invested in all eight major jurisdictions in Santa Barbara County to address the specific needs of their population in promoting emergency preparedness. These efforts have included the development of a community survival guide, "20 Weeks to Preparedness" in cooperation with the American National Red Cross Santa Barbara County Chapter, neighborhood trainings, and expansion of Community Emergency Response Team (CERT) programs. These projects and programs will be culminating in the development of an Operational Area-wide public education and awareness program that will allow for more consistency in messaging while enabling jurisdictions to tailor the programming to meet the needs of their specific constituencies.

Contact:
Ms. Barbara Andersen
The Orfalea Foundations
1283 Coast Village Circle
Santa Barbara, CA 93108
(805) 565-7550

Otay Land Company-Chula Vista Fire Dept.- Review/Analysis of the Fire Facility, Equipment, and Deployment Master Plan - May 2011 (Budget: < $10,000.00)

Diamante Partners performed a third-party review of the Fire Facility, Equipment, and Deployment Master Plan document as prepared by ESCI on behalf of the Chula Vista Fire Department in 2006 and updated in January 2011. The focus of the master plan document was to evaluate the impact of future growth to the City according to the general plan and was envisioned until 2030. The document examined issues and opportunities that exist to provide Fire and Emergency Medical Services to the City that provided the high quality services that the citizens of Chula Vista have come to expect from the fire department. Diamante examined issues presented in the Master Plan in context to the existing Chula Vista fire and life safety service delivery and in correlation to the proposed Otay Ranch Development, and offer relevant opinions as appropriate.

Contact:
Mr. Jeff O'Conner
Otay Land Company-Homefed Corp.
1903 Wright Place, Ste. 220
Carlsbad, CA 92008
(760) 918-8200

FEE SCHEDULE

Diamante Partners provides a fixed rate of **$198.00 per hour** for all consultants on public sector-based projects. Travel, per diem and material costs are separate and based on actual costs.

UNDERUTILIZED DISADVANTAGED BUSINESS ENTERPRISE (DBE)

As previously stated, Diamante Partners as undergone a re-organization and is in the process of becoming a certified DBE given Mr. Reggie Salvador's (Diamante Founding Partner and Managing Director) ethnic background of Asian-American/Pacific Islander.

Montecito Fire Protection District

California

RFQ– Standard of Coverage Study

May 2013

Emergency Services Consulting International

25200 SW Parkway Ave. Suite 3 | Wilsonville | Oregon | 97070 | www.esci.us | 800-757-3724 | info@esci.us

Emergency Services Consulting International

www.esci.us ◆ info@esci.us ◆ 800.757.3724

Letter of Submittal

May 29, 2013

Montecito Fire Protection District
Attn: Chief Chip Hickman
595 San Ysidro Road
Santa Barbara, CA 93108

RE: Request for Statement of Qualifications to Provide a Standard of Coverage Study

Dear Chief Hickman:

Emergency Services Consulting International (ESCI) is pleased to submit the following qualifications to conduct a Standard of Coverage Study for the Montecito Fire Protection District. We recognize the importance of this engagement and appreciate your consideration of our qualifications.

ESCI project teams have completed numerous standards of coverage studies, and we were pleased to provide a sample scope of work for the study when we were originally contacted by the district. The scope used to create this statement of qualifications is designed to provide a fully compliant Standard of Coverage (SOC) based the methodology outlined in the "Standards of Response Coverage, 5th Edition" as published by the Commission on Fire Accreditation International.

A key factor to the success of this project is the expertise and the depth of experience of the members assigned by the successful bidder. We are committed to assigning our most experienced consultants and specialists; therefore, we have assigned ESCI Senior Consultant Cameron Phillips as Project Manager and ESCI Senior Consultant Joe Parrott as the project's Subject Matter Expert. Mr. Phillips has 30 years of experience in the California fire service, retired as fire chief of the Garden Grove Fire Department, and is based in southern California (Huntington Beach). Mr. Phillips' project work for ESCI includes his current assignment as a team member on the project team completing an SOC for Orange County Fire Authority (CA) and as project manager for a four-phase project (including an SOC) ESCI is conducting for the Newport Beach Fire Department. A complete resume for Mr. Phillips, as well as the other lead staff members, is provided in the body of this submittal.

Corporate Office
25200 SW Parkway Avenue
Suite 3
Wilsonville, OR 97070
Phone: 503.570.7778
Fax: 503.570.0522

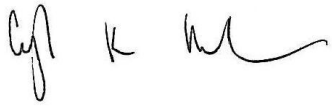
Eastern Region
111 Kilson Drive
Suite 208
Mooresville, NC 28117
Phone: 704.660.8027

National Capital Region
4025 Fair Ridge Drive
Fairfax, VA 22033
Phone: 703.273.0911
Fax: 703.273.9363

We appreciate your consideration of our proposal and look forward to assisting the Montecito Fire Protection District with this important project. If selected, ESCI is committed to promptly start the project when requested. We understand from the district's request that the project is anticipated to begin no later than August 2013.

If you have any questions about this submittal, please do not hesitate to contact me (phone: 503-570-7778; email: cindy.march@esci.us; fax: 503-570-0522; land mail: 25200 SW Parkway Avenue Suite 3, Wilsonville, OR 97070).

Sincerely,



Cynthia K. March
Chief Operations Officer

Table of Contents

A. Background Information

Legal Name

Emergency Services Consulting International, Inc.
25200 SW Parkway Avenue Suite 3
Wilsonville, Oregon 97070
503-570-7778 | 1-800-757-3724 | fax 503-570-7778

Year Established & Organization Type

ESCI was established as a corporation in the State of Oregon in 1976.

Contact Person for This Submittal

Cynthia March, Chief Operations Officer
25200 SW Parkway Avenue Suite 3
Wilsonville, Oregon
cindy.march@esci.us
503-570-7778 | 1-800-757-3724 | fax 503-570-7778

ESCI at a Glance

- Mission: Improve public safety by facilitating the best, most advanced policy decisions
- Established in 1976
- Headquartered in Wilsonville, Oregon; with branch offices in Mooresville, North Carolina; and Fairfax, Virginia
- Extensive fire and EMS consulting throughout the US and Canada
- Six employees, over 40 expert field consultants

Scope of Services Usually Provided

All ESCI projects begin with the Project Manager and Client Liaison collaboratively developing and approving a formal project work plan, outlining project team member responsibilities, internal and external deliverables, project milestones, and overall project timelines. Most projects continue with a specific data request submitted by the Project Manager to the Client Liaison and at least one on-site visit by the project team to collect data and conduct stakeholder input sessions. The Client Liaison may be asked to provide logistical support in scheduling stakeholder meetings and/or providing meeting space. For a project of the type proposed by MFPD, ESCI would recommend hosting a community forum in order to provide information about the project and solicit input from interested citizens.

Once the data collection and stakeholder input process is complete and organized into an ESCI-developed matrix format, the Project Manager will provide the matrix to the Client Liaison for review and approval.

As the project moves into the written draft phase and throughout the course of the project, ESCI's Project Manager maintains regular contact with and provides project status reports to the Client Liaison, which provides flow of communications, and information sharing process. This process assures the report, findings, and recommendations are anticipated, not a surprise; and supports the issues, concerns, and progress, discussed and presented by ESCI during the life of the project.

Upon completion of the written document, the Project Manager will provide to the Client Liaison an electronic copy of the draft study for review and comment. Client feedback is a critical part of this project and adequate opportunity will be provided for review and discussion of the draft.

ESCI will complete any necessary revisions of the draft and produce a specified number of copies of the final version as well as an electronic version in pdf file format. A formal presentation of the project report will be made by ESCI project team member(s).

Existing or Pending Litigation

ESCI has no past, current, and/or pending litigation or unresolved lawsuits.

Potential Conflict of Interest

ESCI has neither directly nor indirectly entered into any agreement, participated in any collusion or collusion activity, or otherwise taken any action which in any way restricts or restraints the competitive nature of this solicitation including but not limited to the prior discussion of terms, conditions, pricing or other offer parameters required by this solicitation.

ESCI is not presently suspended or otherwise prohibited by any government from participation in this solicitation or any other contracting to follow thereafter.

Neither ESCI nor anyone associated with ESCI has any potential conflict of interest because of or due to any other clients, contracts, or property interests in this solicitation or the resulting project.

In the event that a conflict of interest is identified in the provision of services, ESCI will immediately notify the client in writing.

ESCI Capabilities

Emergency Services Consulting International (ESCI) is an international firm providing specialized, high quality, professional fire, police, communications, and EMS consulting services to organizations throughout the United States and Canada. ESCI has been meeting the needs of emergency services agencies since 1976 and is considered by many to be the nation's leader in emergency services consulting. Utilizing a staff of six personnel and over 40 field consultants nationwide, ESCI provides consulting services to municipalities, districts, nonprofit organizations, and the industrial and commercial community.

ESCI is recognized as an expert in the field by the emergency service community. This is confirmed by our ongoing relationship with the International Association of Fire Chiefs (IAFC), the United States Department of Defense, the Western Fire Chiefs Association, the National Fallen Firefighters Foundation, the National Volunteer Fire Council, and the hundreds of clients we serve from coast to coast.

Since the beginning, ESCI has operated on the principles of honesty, integrity, and service. ESCI's philosophy is to maintain an active involvement within the emergency service disciplines and related fields, staying ahead of the rapid changes and issues facing our clients.

…facilitating the best, most advanced policy decisions

The mission of ESCI is to **improve public safety by facilitating the best, most advanced policy decisions.** We will accomplish this by providing the highest value of consulting services and educational programs. ESCI utilizes a team of professionals committed to offering highly

beneficial programs covering current and anticipated fire, police, communications, emergency management, and emergency medical services issues and needs.

We provide a wide array of services including organization audits and evaluations; cooperative effort and consolidation; health and safety evaluations; master, strategic, and growth management plans; deployment planning; hazard mitigation planning; executive searches; assessment centers; and customized consulting. ESCI has helped improve emergency services in hundreds of communities throughout the country. Our innovative training programs are improving the way organizations and people work.

ESCI encourages creative solutions to complex system dilemmas. The firm recognizes the cultural, economic, operational, legal, and political realities of the local environment. ESCI avoids pre-conceived biases in order to develop and implement imaginative and long-lasting solutions. In addition, ESCI equips its clients with the background, understanding, and confidence to tackle future problems as they arise.

All of ESCI's field associates are active practitioners in their respective fields, with many involved in highly visible and responsible national leadership positions in law enforcement and fire/rescue services. We understand your issues, challenges, responsibilities, and offer proven methods to improve your effectiveness.

ESCI Offices

Corporate Headquarters
Jack W. Snook, President
Cindy March, Chief Operations Officer
25200 SW Parkway Avenue, Suite 3
Wilsonville, OR 97070
Phone: 800.757.3724
Fax: 503.570.0522
Email: cindy.march@ESCI.us

Eastern Region Office
Kent Greene, Senior Vice President
111 Kilson Drive, Suite 208
Mooresville, NC 28117
Phone: 704.660.8027
Email: kent.greene@ESCI.us

National Capital Region Office
Tommy Hicks
4025 Fair Ridge Drive
Fairfax, VA 22033
Phone: 703.273.0911
Fax: 703.273.9363
Email: tommy.hicks@ESCI.us

B. General Qualifications

The ESCI Advantage

ESCI's advantage begins with our technical expertise and capability, extends to our experienced and highly qualified staff, and concludes with a product that will enable the Montecito Fire Protection District to meet the challenges of providing fire protection and emergency medical services into the future.

ESCI's team has first-hand experience in the process of developing Standards of Coverage that are 5th edition compliant. The *ESCI Advantage* includes:

- A clear understanding and appreciation of the complexity of the local and regional environment in California. Some previous clients and current projects in California include:
  - Orange County Fire Authority (Standard of Cover – in progress, Strategic Plan, Reserve Program Review)
  - Newport Beach (Standard of Cover – in progress, Agency Evaluation – in progress, Strategic Plan – in progress, Cooperative Service Feasibility Study – in progress)
  - Imperial County (Strategic Master Plan)
  - Monterey Park (Fire Service Analysis)
  - Costa Mesa (Station Location and Deployment; Response Time Modeling)
  - Chula Vista (Deployment Analysis)
  - Alameda County (Fire Department Strategic Plan)
  - Burbank Fire Department (Operational Review)
- Over 35 years of public safety consulting experience; the successful completion of hundreds of consulting engagements. Some recent Standards of Coverage studies include the following:
  - Kannapolis, NC
  - Arvada, CO
  - Medford, OR
  - Vancouver, WA
  - Salem, OR
  - Spokane, WA
  - Reno, NV
  - Washoe County, NV
  - Boise, ID
  - Maplewood, MO
  - St. Albert, AB, CAN
- The ability to deliver a high quality product on time and with organizational support and endorsement.
- Knowledge of contemporary issues associated with delivery of emergency services.
- Experience with a variety of jurisdictions including municipalities, counties, state government, and the U.S. Department of Defense.
- A highly skilled and knowledgeable team of professionals with skill-sets necessary to meet your expectations.

C. Specific Qualifications

Lead Staff

ESCI's proposed Project Manager is well versed in the complexities of the California fire service. Senior Consultant Cameron Phillips is a retired fire chief from Garden Grove, California. His most recent assignments in California for ESCI include a Fire Service Analysis for the city of Monterey Park and a Fire and Emergency Service Strategic Master Plan for Imperial County; he served as project manager for both assignments. Cameron's current assignments are as project manager for a four-phase project conducted by ESCI for the Newport Beach Fire Department (includes an SOC) and as a team member for an SOC study ESCI is completing for the Orange County Fire Authority.

Jack W. Snook, President – Project Oversight

Mr. Snook has been with the company since 1976. He brings with him over 44 years of private and public sector experience at multiple levels. His formal education includes a Master's degree in Public Administration, a Bachelor of Science degree in Fire Administration, and an Associates of Arts degree in Fire Science. His career ranges from being the chief executive officer of a city and corporation to being the chief and administrator of one of the nation's 80 largest fire departments. He has been looked upon as a national leader in the fire service for many years.

Mr. Snook has extensive experience in providing consulting services to clients throughout the world. Areas of expertise include management and organization reviews, cooperative service and consolidation, strategic planning, program evaluations, and risk assessment. In 1991, he signed an exclusive contract with the International Association of Fire Chiefs (IAFC) to present all of their cooperative effort workshops nationwide. He is the co-author of the book entitled *Making the Pieces Fit, Through Cooperative Effort*. The publication is the recommended reference book by the IAFC and the International City/County Managers Association (ICMA). He has served as the project manager for over 200 projects throughout North America. Mr. Snook specializes in large regional fire service providers and Metro fire departments.

Recent assignments and/or appointments would include facilitator of the National Fallen Firefighters Foundation national summit to reduce line of duty deaths in America; moderator of the nation's first symposium to bring healthcare officials and the fire service together to develop a model program to reduce healthcare facility deaths and injuries; facilitator of a national roundtable to discuss emerging codes; and facilitator of the International Association of Fire Chiefs strategic plan (two years). Mr. Snook has key-noted over seventy-five conferences and conventions and has spoken at over 200 events.

Educational Background

- Masters Degree in Public Administration
- BS Degree in Fire Administration
- A/A Degree in Fire Science
- Fire Services Administration Institute graduate
- California Fire Officers' Academy graduate

Professional Experience

- President, Emergency Services Consulting International – 1996 to present
- President, Management Development Institute – 1976 - 1995
- 9 years Fire Chief of Tualatin Valley Fire and Rescue (OR)
- 4 years Fire Chief of Lake Oswego (OR)
- 13 years Jackson County (OR) Fire District No. 3 (Firefighter to Deputy Chief)

Relative Experience

- City Councilman and Mayor - Central Point (OR) 1972-1978
- Fire Science Coordinator - Rogue Community College
- Adjunct Faculty Member - U.S. National Fire Academy
- International Association of Fire Chiefs – member, committee chair
- Western Fire Chiefs' Association - member
- Oregon Fire Chiefs' Association - member
- Metro Fire Chiefs' Association – member
- St. Mary's Home For Boys - Board of Directors (1994-2000)
- Oregon Donor Program – Board of Directors (2000-2005)

Summary of Projects

Deployment Plans

Orange County Fire Authority, CA
Kansas City Fire Department, MO

Agency Evaluations

Littleton Fire Department, CO
Foster City, CA
San Mateo, CA
South Metro Fire Department, CO
Riverside Fire Department, IL
Lyons Fire Department, IL
Greenwood Fire Department, IN
Fallon Fire Department, NV
Evans Valley Fire Department, OR
Hermiston, OR
Cowlitz County Fire District #2, WA
Enumclaw, WA
Highlands Ranch Metropolitan District, CO
Hull, MA
Norwell, MA
Cohasset, MA
Reedy Creek Fire Department (Disney World), FL
St. Helens Fire Protection District, OR
Scappoose Fire Departments, OR
Benton County Fire Department No. 4, WA
King County Fire Department No. 16, WA
Thurston County Fire Department No. 3, WA
Scituate, MA
Hingham, MA

Strategic Plans

Orange County Fire Authority, CA
International Association of Fire Chiefs
New England Association of Fire Chiefs, MA
Kansas City Fire Department, MO
Tualatin Valley Fire & Rescue, OR
Oregon Fire Chief's Association
Oregon Fire District Directors Association
Washington Firefighters Association
Enumclaw, WA
Reedy Creek Fire Department (Disney World), FL
Clark County Fire District 6, WA
Newberg Fire Department, OR
St. Helens Fire Protection District, OR
Scappoose Fire Departments, OR
King County Fire Department No. 16, WA
Thurston County Fire Department No. 3, WA

Cooperative Effort Feasibility Studies

Foster City and San Mateo, CA
Honolulu (City and County), HI
Kootenai County and Post Falls, ID
Riverside and Lyons Fire Depts., IL
Cities of Scituate, Hingham, Hull Norwell and Cohasset, MA
Jackson County Fire Dist. No. 3, Jackson County F.D. No. 4, Lake Creek, and the City of Central Point, OR
Lincoln County, OR
Clark County Fire Dist. No 5, City of Vancouver Fire Dept., WA

Dispatch Services

Department of Defense, HI

Executive Search

Reedy Creek Fire Department (Disney World), FL
Clackamas County Fire District No. 1, OR
Eugene Fire Department, OR
Houston Fire Department, TX
Boring Fire District, OR
St. Helens Fire Department, OR
Frankford Fire Department, IL

Cameron R. Phillips, Senior Consultant – Project Manager

Mr. Phillips has over 30 years of emergency services experience, having served in nearly every capacity with the Garden Grove Fire Department, California. His experience included top management positions and he served as fire chief from 1999 until his retirement in 2003. He holds a Master's Degree in Public Policy and Administration, from California State University, Long Beach, California.

Mr. Phillips has extensive municipal experience that includes service on a wide variety of city committees, community groups, and cross discipline employee groups dealing with city management, policy development, strategic planning, and daily operations. Mr. Phillips has project management experience in the development and construction of the Orange County Metro Net Fire Dispatch Center, and served as chairman of fire chief committees on management and policy development for the dispatch center.

Mr. Phillips is past president of the Orange County Fire Chiefs Association, an associate instructor and lecturer for the Public Policy and Administration Graduate Program at California State University, Long Beach, and a past president of the Metro Chiefs Association. He currently serves as a board member and chairperson for the Garden Grove Hospital, Garden Grove, California.

Educational Background

- Master's Degree, Public Policy and Administration, California State University, Long Beach Long Beach, CA
- Bachelor's Degree, Vocational Education, California State University, Long Beach Long Beach, CA
- Associate Arts Degree, Orange Coast College, Costa Mesa, CA

Professional Experience

- Fire Chief, City of Garden Grove Fire Department, Garden Grove, CA 1999-2003 (service retirement)
- Fire Division Chief - Operations Division, City of Garden Grove Fire Department, Garden Grove, CA 1996-1999
- Fire Battalion Chief, City of Garden Grove Fire Department, Garden Grove, CA 1994-1996
- Fire Captain, City of Garden Grove Fire Department, Garden Grove, CA 1980-1994

Relevant Affiliations

- Member, International Association of Fire Chiefs
- Member, California Fire Chiefs Association

Summary of Projects

Agency Evaluations

Burbank Fire Department, CA
Tulare Fire Department, CA
Monterey Park, CA
Sonoma County Fire, CA
Goodyear Fire Department, AZ

Agency Evaluation and Consolidation

Rifle, Burning Mountains, Glenwood Springs, CO

Master Plan

Imperial County, CA

Strategic Plan

City of El Cajon, CA

Fire Prevention Study

City of San Jose, CA

Joe Parrott, Senior Consultant – Subject Matter Expert

Chief Parrott recently retired after 38 years of very diverse fire and emergency services experience. Chief Parrott served for 15 years as fire chief for the City of Gresham, Oregon and six years as deputy fire chief/fire marshal for the City of Salem, Oregon. He has attained the professional designation of Chief Fire Officer awarded by the Center for Public Safety Excellence.

Chief Parrott has managed emergency services evaluations, growth management studies, strategic planning processes, and fire service standards of coverage and deployment plans across the country. Previous clients include the Kansas City Fire Department (MO), Orange County Fire Authority (CA), Spokane Fire Department (WA), Philadelphia Fire Department (PA) San Bernardino County Fire Department (CA), Reno Fire Department (NV) and numerous similar sized and smaller fire agencies. He

has also facilitated strategic plans for state and national organizations including the National Fallen Firefighters Foundation, National Volunteer Fire Council, and others.

Chief Parrott is a frequent presenter at regional, state, and national conferences including the Western Fire Chiefs Association, the Oregon Fire Chiefs Association, and the IAFC Webinar series.

Chief Parrott has an Associate Degree in Fire Science and a Bachelor Degree in Management, as well as extensive incident command and emergency management education and experience.

Educational Background

- BS Degree in Management, City University, Bellevue, WA
- AS Degree in Fire Command and Administration, Fort Steilacoom CC
- Extensive Incident Command System Training including: Operations Section Chief; Incident Commander; Command and General Staff

Professional Experience

- 38 years diverse and progressive fire and emergency services experience
- 18 years as Fire Chief – 15 at Gresham, Oregon
- Deputy Chief/Fire Marshal, Salem Fire Department, Salem, OR
- Senior Consultant, Emergency Services Consulting International

Relative Experience

- Chairman, Regional Incident Command System Steering Committee
- Chairman Bureau of Emergency Communications Users Board
- Oregon Fire Chiefs Association
- International Association Fire Chiefs
- Oregon Fire Chiefs Association representative to the League of Oregon Cities
- Urban Interface Specialist, National Wildfire Incident Management Team
- Interim Community Development Director, Gresham, Oregon
- Emergency Services sub-committee chair – Oregon Seismic Rehabilitation Grant Program

Associated Professional Accomplishments

- Oregon Incident Command System Task Force
- League of Oregon Cities “Innovation Award”
- International Association of Fire Chiefs “Award of Merit”
- Oregon Jaycee’s “Great Young Person”
- Created regional service delivery system - four cities and one fire district
- Created partnerships with local police agency for dive rescue and hazardous materials emergency response

Summary of Projects

Chief Parrott has been the project manager of some of the more challenging projects undertaken by ESCI. Following is a partial list of the projects he has managed.

Standards of Cover, Staffing/Resource Deployment, and Station Location Studies

Carmel, IN
Billings, MT
Kansas City, MO
Reno, NV
Salem, OR
Meridian, ID
Monroe, WA
Washoe County, NV
Medford, OR
Arvada, CO
Spokane, WA
Orange, CA
Nanaimo, BC
Richland, WA
Belton, TX
Winston-Salem, NC
Maple Valley Fire District, WA
Vancouver, WA
Salem, OR
Washoe County, NV

Evaluations

Orange County Fire Authority, CA
North Los Angeles County Fire Agencies
Maui County Fire Department, HI
North San Diego County Fire Agencies
Monterey Park, CA
Polk County Fire District No. 1, OR
Pierce County Fire District 8, WA
Jefferson Fire District, WA
North County Fire Protection District, CA

Master Plans

Paso Robles, CA
Battle Creek, MI
Keizer Fire Department, OR
Medford, OR
Imperial County, CA
Hesperia Fire Department, CA
Tamarac, FL
Bonita Springs, FL
South Lane Fire & Rescue, OR

Strategic Plans

Kansas City, MO
Polk County Fire Department No. 1, OR
National Volunteer Fire Council
National Fallen Firefighters Foundation
Maui County Fire Department, HI
Clark County Fire Department No. 6, WA
Orange County Fire Authority, CA
Oregon Fire District Directors Association
Oregon Volunteer Firefighters Association
Salem Fire Department, OR

Meeting & Exceed Consultant Minimum Qualifications

Established in 1976, ESCI has been in the business of assisting fire and emergency service providers for 37 years. In addition, the lead team members have a combined 68 years of varied fire service experience (the entire proposed team has more than 150 years of fire and emergency service experience).

In terms of projects similar in scope to that proposed by MFPD, ESCI teams have completed more than 10 SOC studies during the last three years. Mr. Parrott has served as a subject matter expert, team member, or project manager for nearly all of them. Since its inception, ESCI has completed more than 75 deployment-related studies for emergency service providers across the United States and Canada.

ESCI's commitment to every client is complete the project scope of work 'on time, on budget, and with quality'. We would make the same commitment to MFPD. Once engaged, all project team members are available for the life of the project.

ESCI's proposed project team is available to begin working on the MFPD Standards of Coverage study by August 2013.

Project Manager Phillips has an excellent history of close coordination and ready communication with his Client Liaisons. He recognizes the importance of regular status reports as well a thorough client briefing at every phase of the project.

Should ESCI be selected to participate in an interview with MFPD, Project Manager Phillips will present ESCI's qualifications and take the lead in answering any questions the MFPD representatives may wish to ask.

Project Organization

ESCI is proposing the following consultants for the Standards of Coverage study.

Lead Team Member	Responsibilities
Jack Snook, President ***Project Oversight***	Project oversight; time as required for support to Project Manager and the client's representative.
Cameron Phillips, Sr. Consultant ***Project Manager*** ***(Lead Team Member)***	Primary contact for all project-related information; responsible for the content and quality of the project and will ensure that the project is accomplished on schedule and within budget.
Joe Parrott, Sr. Consultant ***Subject Matter Expert*** ***(Lead Team Member)***	Team member specializing in the development of SOCs; will be assigned to monitor and review document development, ensuring compliance with "Standards of Response Coverage, 5th Edition".
Lane Wintermute, Sr. Consultant ***Team Member***	Team member specializing in Organizational Design, Governance, and Service Delivery Infrastructure.
Rob Strong, Associate Consultant ***GIS Analyst***	Team member specializing in GIS Analysis, Statistical Analysis, and Service Delivery Performance.
Rick Fee, Associate Consultant ***Team Member***	Team member specializing in Capital Assets, Training, Hazardous Materials.

D. Project References

Monterey Park, California	
Project Name: Fire Service Analysis **Project Budget:** $64,271.00 **Contract Duration:** November 2011 – June 2012 (client request for fiscal analysis add-on created slight delay in completion)	**Contact**: James Birrell, Fire Chief **Phone**: 626-307-1262
Project Description: The City of Monterey Park engaged ESCI to conduct an assessment of existing City and proposed Los Angeles County Fire District service delivery levels and the financial benefits, costs and/or losses associated with a final proposal to transfer or consolidate public safety services. The assessment included a determination as to service continuity, enhancement, or elimination of emergency response and ancillary services, on-duty staffing levels, facilities, and equipment. ESCI applied a comparative analysis technique examining current MPFD services and proposed LACFD service levels as stated in the feasibility document. The scope of work was limited to providing a comparison of services proposed by LACFD and the current services in operation to in Monterey Park.	

City of Vancouver Fire Department, Washington	
Project: Standards of Coverage & Deployment Plan **Project Budget**: $15,000.00 **Contract Duration:** December 2011 – March 2012 (project completed on time)	**Contact**: Christel Nelson **Phone**: 360-487-8452
Project Description: ESCI entered into a contract in late 2011 to create the Standards of Coverage and Deployment Plan for the Vancouver Fire Department. The draft document was delivered to the City in December. The scope of the project includes an update to the current Vancouver FD Standards of Cover document to a more readable format that is fully compliant with industry best practices in the field of deployment analysis. This evaluation and analysis included incident data from the January 1, 2011 through September 30, 2011 period and was based on nationally recognized guidelines and criteria, including recognized National Fire Protection Association (NFPA) standards, Insurance Services Office (ISO) schedules, Commission on Fire Accreditation International (CFAI), any federal and state mandates relative to emergency services, and generally accepted practices within emergency services. The draft document awaits the citizen input process that will then be incorporated into long-term response recommendations.	

Medford, Oregon	
Project Name: Emergency Service Master Plan and Standards of Coverage Study **Project Budget:** $37,500.00 **Contract Duration:** November 2011 – January 2012	**Contact**: Acting Chief Gordon Sletmoe **Phone:** 541-774-2324
Project Description: ESCI was engaged to complete an Emergency Service Master Plan for the Medford Fire Department. At the client's request, the plan followed closely the Center for Fire Public Safety Excellence (CPSE) Standards of Coverage model that develops written procedures to determine the distribution and concentration of fixed and mobile resources of an organization. The purpose for completing such a document was to assist the agency in ensuring a safe and effective response force for fire suppression, emergency medical services, and specialty response situations in addition to homeland security issues. ESCI conducted its review of system performance in a holistic manner, reviewing in detail system elements, organizational practices, and other factors that were contributing to current response performance. Through this process, ESCI was able to offer solutions that may be less expensive or more effective to resolve system deficiencies.	

Orange County Fire Authority, California	
Project: Deployment Plan and Standards of Cover Document **Project Budget:** $192,700.00 **Contract Duration:** February 2005 - September 2006 (completed on time)	**Contact:** Keith Richter, Fire Chief **Phone**: 714-573-6000
Project Description: ESCI was contracted to develop a deployment plan and a standards of cover document. This was a multi-faceted project and included first defining the type, nature, and location of various levels of risk within the communities of OCFA. As the project progressed, significant time and effort was spent in developing multiple delivery system options relative to the distribution, concentration, staffing, and the vehicle platforms utilized within this complex system. This process lead to defining the number of personnel needed to effectively control emergency events and the alarm assignments (apparatus) required to deliver the needed staffing. The field validation and critical tasking elements of this project may be the most extensive effort conducted to date by a Metro Department. A critical element of this process was the development of mutually agreed upon performance measures and targets that were defined based on time and resources as well as when identified resources would arrive on scene and could begin operations. These plans were incorporated into the organization's strategic plan and many of the plan recommendations are currently being implemented. Significant changes have been made to the OCFA delivery system as a result of this project. These would include, but not necessarily be limited to, changes in tiered dispatch protocols, the utilization of peak activity units, standardization of vehicle platforms, and significant changes in the way in which vehicles and stations are staffed. Ultimately the plans received support of the organization, labor groups, and a unanimous vote for adoption by the 23-member Board of Directors. **Project Update:** At the end of 2012, the OCFA engaged ESCI to update its Standards of Cover document.	

E. Fee Schedule

Estimated Hourly Rates

Project Manager*	$162.50
Subject Matter Expert*	$187.50
Other Team Members*	$125.00 - $137.50

** Please note: Team members are routinely compensated on a task-completion basis.*

F. Underutilized Disadvantaged Business Enterprises

For a project of the type proposed by MFPD, ESCI would typically engage the printing services of a local Disadvantaged Business Enterprise. Based on our initial investigation of certified DBEs located in Santa Barbara County, we have determined that engaging the services of a local printer rather than using our own in-house printing capabilities would actually inflate the cost of the study. Should ESCI be selected to complete the study, we would be willing to work the cost of printing services as provided by a local DBE into the final negotiated price of the project.

Appendix

Disclosures and Practices

Insurance
ESCI is insured in excess of $2,000,000. Insurance certificates will be provided upon award of contract.

Litigation
ESCI has no past and/or pending litigation or unresolved lawsuits.

Employment Practices
ESCI is an equal opportunity employer. The company is guided by recognized industry standards, policies, and procedures. ESCI offers a wide range of employee benefits and ongoing training opportunities that has enabled ESCI to attract and retain quality consultants who are recognized as experts in emergency service organization, management, and service delivery. ESCI will not refuse to hire, discharge, promote, demote, or otherwise discriminate in matters of compensation against any person otherwise qualified, because of age, race, creed, color, sex, national origin, ancestry, or handicap.

Select Clientele, 2008 – 2012 (most recent five years)

Client	Project
Alachua County, FL	Master Plan
Alameda County, CA	Strategic Plan
Albemarle County, VA	Officer Development Program
Albion, NY	Fire Services and EMS Review
Albuquerque, NM	Communication Center Opportunities for Excellence, Master Plan
Anacortes, WA	Fire/EMS Deployment Analysis and Cooperative Services Feasibility (Three departments)
Anne Arundel County, MD	Fire Protection Strategic Plan
APCO Canada, Ottawa, ON	Effective Practices for Public Safety Communications Centres
Arvada Fire District, CO	Fire Department Master Plan, Feasibility Study, SOC
Astoria, OR	Internal Review
Avon Lake, IL	Emergency Services Master Plan
Avon Lake, OH	Cooperative Agreement/Consolidation
Bainbridge Township, OH	Facilities/Deployment Study Deployment/Staffing Update
Bangor, ME	Fire Services Performance Management Review
Barnstable FD, MA	Facility Location Study
Bay Village, OH	Fire/EMS Evaluation
Belgrade, MT	Fire Services Study
Bellevue, ID	Fire Protection Evaluation/ Cooperative Study with Wood River Fire District/City of Hailey
Belton, TX	Station Location
Bemidji, MN	Feasibility Study
Berger ABAM Engineering, OR	Fire Service Delivery Analysis
Blue Springs, MO	EMS Evaluation
Boise, ID	EMS Master Plan, Standards of Cover
Boone County, MO	Executive Search
Bozeman, MT	Fire Protection Master Plan
Brook Park, OH	Emergency Services Facility Study
Brookhaven, NY	Fire District Dissolution Study, Financial Analysis
Brookline, MA	Technology Integration Consulting
Burbank, CA	Fire Department Comprehensive Review

Client	Project
Caldwell, ID	Feasibility Study
Canon City, CO	Strategic Plan
Carlisle, PA	Deployment Analysis
Cascade Locks, OR	Revenue Cost Analysis
Central Jackson County/Lotawana, MO	Evaluation and Cooperative Feasibility Study
Central Kitsap Fire/Rescue, WA	Cooperative Effort Feasibility Study (Three departments), Executive Search, Operations Plan, Management Audit
Central Lane Communications, Eugene, OR	Operational Assessment
Central Valley Ambulance Authority, WA	Executive Recruitment
Central Valley Fire District, MT	Station Location Analysis
Chaffee County, CO	Cooperative Efforts Feasibility Study
Charleston, SC	Executive Recruitment
Chino Valley Independent Fire District, CA	Standards of Cover
Chula Vista, CA	Fire Department Master Plan, Master Plan Addendum, and Advanced Life Support System Evaluation, Deployment Analysis, Feasibility Study, Review of EMS planning
Clackamas Fire District #1, OR	Strategic Plan
Clark County Fire Dist. 5/City of Vancouver, WA	Annexation Feasibility Study
Clayton, MO	Fire Services Evaluation, Consolidation Study
Cloquet Area Fire District, MN	Strategic Plan
Cohocton, NY	EMS Consolidation Feasibility Study
Columbia 911 Communication District, OR	Executive Search
Corcoran, MN	RFP Support Services
Corvallis Police Department	Regional Communications Consolidation
Costa Mesa, CA	Fire Station and Deployment Study, Response Time Modeling
Cowlitz County Fire District #2, WA	Strategic Plan and Management Audit, Feasibility Study
Curry County Health District, OR	Community Attitude Survey
Danville, VA	EMS Agency Evaluation, Station Location Analysis
Dauphin County, PA	Comprehensive Emergency Services Study
Davidson, NC	Station Location
Delta Township, MI	Fire and EMS Services Master Plan
Deptford Fire District, NJ	Fire Services Evaluation and Master Plan
East Pierce Fire and Rescue, WA	Capital Facilities Consulting, Executive Search

Client	Project
Estacada Fire District, OR	Volunteer Recruitment/Retention Strategic Plan
Eugene/Springfield, OR	Cooperative Effort Feasibility Study, Evaluation of Police Dispatch
Evans, CO	Fire and Emergency Services Study
Fairview Park, OH	Fire/EMS Evaluation
Ferndale – Michigan Muni, MI	Cooperative Efforts Feasibility
Florence County, SC	Agency Evaluation and EMS Master Plan
Fontana, CA	Fire Service Financing Study
Fort Lupton Fire Protection District, CO	Fire Protection Evaluation and Master Plan
Franklin Township Fire District No. 1, NJ	Fire/EMS Evaluation & Master Plan
Fulton County Emergency Communications Center, GA	Evaluation; Work Plan Guide; Strategic Plan; Impact Report, Interim Management Work Plan
Gladstone, OR	Focused Management Evaluation
Goodyear, AZ	Fire/Police Master Plan
Grand Junction, CO	Station Location Study
Great Sisters Area, OR	Regional Emergency Operations Plan
Greater St. Louis County, MO	Cooperative Effort Feasibility Study (Five Fire Departments)
Gresham, OR	Community Attitude Survey
Groton, CT	Survey of Fire Staffing Services
Guilford County, NC	Comprehensive Emergency Services Study
Hailey, ID	Fire Protection Evaluation/ Cooperative Services Study with Wood River Fire District/City of Bellevue
Hamel-Lorretto, MN	Cooperative Efforts Feasibility
Hermiston Fire & EMS, OR	Executive Recruitment - Fire Chief; Cooperative Services Feasibility Study
Hernando County, FL	Regional Emergency Services Master Plan and Cooperative Services Feasibility Study
Hialeah, FL	Master Plan, Standards of Cover
Highlands Ranch Metropolitan District, CO	Emergency Services Options Analysis
Hillsboro, OR	Executive Recruitment - Fire Chief
Hillsborough County, FL	Performance Audit
Honolulu Fire Department, HI	Merger Feasibility Study – EMS and Fire
Houston, TX	Executive Recruitment
Imperial County, CA	Master Plan
Jackson County Fire District #3, OR	Executive Recruitment, Agency Evaluation
Joshua, TX	Fire Department Master Plan

Client	Project
Kannapolis, NC	Standards of Cover Analysis
Kansas City, MO	Integration Analysis: EMS Computer Aided Dispatch and Record Management System, Strategic Integration
King County FD 20, WA	Executive Recruitment
Kirkland, WA	Agency Evaluation and Strategic Plan
Kootenai County, ID	EMS Master Plan
La Pine Rural Fire District, OR	Executive Search
Lafayette, OR	Cooperative Services Feasibility
Lakewood, OH	Fire/EMS Evaluation
Lane County Fire Department #1, OR	Executive Recruitment - Fire Chief, Comprehensive Background Investigation
Larkspur Fire Protection District, CO	Fire and Emergency Services Master Plan, Fiscal Analysis
Lewis and Clark County and City of Helena, MT	Fire Department Evaluation and Master Plan
Lewiston, ID	EMS Master Plan
Liberty County, GA	Fire and Emergency Services Master Plan
Lincoln County, OR	Cooperative Services Feasibility Study
Madison Fire District, OH	Evaluation and Master Plan
Malta, NY	Fire Department Evaluation and Master Plan
Maplewood, MO	Fire Services Evaluation, Administrative and Support Functions, Consolidation Study, Standards of Cover
McKinney, TX	Fire Department Operational Review
McNulty People's Utility District, OR	Community Attitude Survey
Medford, OR	Master Plan
Meridian, ID	Fire Department Strategic Plan
Mid-Columbia Fire and Rescue	Executive Recruitment
Minneapolis, MN	Agency Evaluation and Master Plan
Minnetrista, MN	Shared Services Feasibility Study, Police Feasibility Study
Monterey Park, CA	Fire Service Analysis
Mound, MN	Shared Law Enforcement Services Feasibility Study
Mountain Vista, AZ	GIS Travel Time Mapping
Multnomah County, OR	Emergency Management Program Evaluation
New Hanover County, NC	Regional Emergency Services Master Plan & Cooperative Services Feasibility Study
North Hennepin County, MN	Shared Services Study
North Kitsap Fire and Rescue, WA	Cooperative Efforts Feasibility Study
North Olmsted, OH	Fire/EMS Evaluation

Client	Project
North Ridgeville, OH	Fire/EMS Evaluation
North Suburban 9-1-1 Center Des Plaines, IL	Quality Dispatch Solutions Communications Study
Northern Lakes Fire Protection District, ID	Validation of Perceived Needs, Service Contract Development
Northshore, WA	Agency Evaluation, Cooperative Efforts
Novato Fire Protection District, CA	Standards of Cover
Olivette, MO	Fire Services Evaluation, Consolidation Study
Orange, CA	Fire Station Location Study
Orange County Fire Authority, CA	Strategic Plan, Standards of Cover
Orland Fire Protection District, IL	Fire/EMS Evaluation and Master Plan
Overland Park, KS	Evaluation
Owensboro, KY	Operational Audit, Evaluation
Pacifica, CA	Fire Protection Services Evaluation
Palatine Rural FPD, IL	Strategic Plan Facilitation
Parkersburg, WV	Master Plan
Phoenix, AZ	Feasibility Study
Port Ludlow, WA	Strategic Plan, Master Plan, Member Survey
Port of Portland, OR	Communications Center Staffing Study
Poulsbo, WA	Cooperative Efforts Feasibility Study
RED Center, Northbrook, IL	Master Plan
Regional Emergency Dispatch Center, Northbrook, IL	Operational Review/Comprehensive Plan
Reno Fire, NV	Evaluation/Strategic Plan, Standards of Cover
Rifle, Burning Mtns, Glenwood Springs, CO	Cooperative Services, Management Consulting
Richmond Heights, MO	Fire Services Evaluation, Consolidation Study
Rio Blanco County, CO	Master Plan and EMS Director Recruitment
Rocky River, OH	Fire/EMS Evaluation
Roseburg, OR	Station Location
Salem, OR	Strategic Plan, Annual Standards of Cover
San Diego County, North Zone, CA	Fire Department Evaluation and Regionalization Study (10 Departments)
San Jose, CA	Assessment
Sandy, OR	Strategic Plan and Administrative Support Plus
Scio Rural Fire Protection District, OR	Administrative Support Consultation
Shaker Heights, OH	Cooperative Efforts Feasibility Study

Client	Project
Sherrill's Ford – Terrell Fire and Rescue	Executive Recruitment
Siskiyou LAFCO, CA	Municipal Service Review
Sisters/Camp Sherman, OR	Emergency Operations Plan, Training Exercises
Sitka, AK	Review and Update of Emergency Operations Plan
Siuslaw Valley Fire and Rescue, OR	Community Attitude Survey, Incident Review Report
Skagit County EMS Commission, WA	EMS Levy Recommendations and Comprehensive Management Plan
Snohomish County District #3, WA	Station Location Study
Snohomish County District #15, WA	Agency Evaluation, Member Survey
Solano LAFCO, CA	Municipal Service Review
Sonoma County, CA	Rural Fire Service Review
South Adams County, CO	Master Plan
South East Thurston Fire Authority	Strategic Plan, Fiscal Analysis, Executive Coaching
South Lane Fire and Rescue District, OR	Executive Search for Fire Chief
South Metro/Parker Fire, CO	Cooperative Services Feasibility Study, Strategic Plan, Evaluation
Southbury, CT	Needs Assessment Study
Spokane, WA	Annual Standards of Cover and Deployment Plan and Executive Search
Spokane County Fire District No. 13, WA	Organizational Review, Executive Search
Spokane Fire District #10, WA	Executive Search Deputy Chief
St. Albert, AB	Fire Protection Evaluation and Master Plan, Standards of Cover, Fire Services Review
St. Charles, IL	Fire Station Location and Deployment Study, Concurrent Call Report
St. Cloud, MN	Fire/EMS Evaluation and Strategic Plan
Stanislaus LAFCO, CA	Municipal Service Review
Stillwater, MN	Fire Protection Evaluation
Strathcona, Alberta, Canada	Emergency Services Master Plan
Summit, NJ	Shared Services Feasibility Study
Teton County and Jackson, WY	Fire/EMS Master Plan
Tinley Park, IL	Fire and EMS Services Master Plan
Tri-Cities Ambulance, IL	EMS Services and Funding Study
Truckee Meadows Fire Protection District, NV	Regional Standard of Cover
University City, MO	Consolidation Study
Valley Center Fire Protection District, CA	GAP Analysis
Vancouver, WA	SOC and Deployment Plan

Client	Project
Victoria, BC	Training Program Review
Wakiakum Community Foundation, WA	Fire and Emergency Needs Assessment
Walla Walla, WA	Staffing and Deployment Analysis
Washington Terrance, UT	Capital Improvement Plan
Washington Township, OH	Strategic Plan Facilitation
Washoe County, NV	Evaluation/Strategic Plan, Master Plan Recommendation Facilitation, Deployment Study
Weirton, WV	Agency Evaluation
West County EMS & FPD, MO	Deployment Analysis & ISO Review, Strategic Plan
West Metro Fire and Rescue, CO	Strategic Plan Implementation
Westlake, OH	Fire/EMS Evaluation
Westport, WA	Master Plan
Whatcom County Fire District No. 14, WA	Fire and EMS Capital Facilities Analysis, Critique of Environment Impact Statement
Wheat Ridge Fire Protection District, CO	Executive Search
Wood River Fire District, ID	Fire Protection Evaluation/ Cooperative Services Study with the Cities of Belleview and Hailey
Worland Fire Protection District #1, WY	Executive Recruitment - Fire Chief
Yakima, WA	RFA Fiscal Analysis
Yokota Air Base, Japan	Operational Assessment and Facility Design Review, 9-1-1 Center Design

Emergency Services
Consulting International

Corporate Offices
25200 SW Parkway Avenue, Suite 3
Wilsonville, Oregon 97070
800.757.3724

Eastern Region Office
111 Kilson Drive, Suite 208
Mooresville, North Carolina 28117
704.660.8027

National Capital Region Office
4025 Fair Ridge Drive
Fairfax, Virginia 22033
703.273.0911

Agenda
Item #4

STAFF REPORT

Prepared for: Montecito Fire Protection Strategic Planning Committee

Prepared by: Jackie Jenkins / Communications Coordinator

Date: 06/12/2013

Topic: **Revisions to CAD Response Areas to reflect Evacuation Zones for further studies and response time reports.**

1. The CAD Response Areas have been re-designed to reflect the Evacuation Zones, as requested. The new Response Areas will be loaded into the system early next week, after the latest CAD upgrade has been completed.

2. The UCSB mapping project is still under way and close to completion.

3. The Firehouse Analytics demonstration was not scheduled for this meeting due to the unavailability of Jim Brandariz.

Agenda
Item #5

CARPINTERIA~SUMMERLAND
FIRE PROTECTION DISTRICT

May 28, 2013

Chip Hickman, Fire Chief
Montecito Fire Protection District
595 San Ysidro Road
Montecito, CA 93108

Chief Hickman,

As you know, our agencies have partnered in a joint dispatch agreement since 2010. I have been very pleased with the outcome of that agreement and our agencies have grown together in this process. As you also know, the term of our existing agreement expires June 30, 2013. The purpose of this letter is to ask for a sixty (60) day extension of the current agreement until August 31, 2013. This extension will allow you and I time to discuss the status of the current agreement, the positives and any lessons learned. During that extension we can draft any changes we feel necessary to take us through the future of South Coast Dispatch.

If this extension seems reasonable, or if you would desire a different time frame, please let me know. If we do extend we can have our Counsel draft a brief letter of agreement to document the extension.

Please feel free to contact me at any time so we can discuss our course of action prior to June 30, 2013.

Sincerely,

Michael D. Mingee
Fire Chief