



TETRA TECH



Statement of Qualifications

Grant Compliance Services

City of Deltona, FL | RFQ #23013

Copy | April 2023

RESPONDENT INFORMATION FORM
FOR RFQ#23013
GRANT COMPLIANCE SERVICES

The undersigned proposer does hereby agree to furnish the City of Deltona, Florida, the items listed in accordance with the minimum requirements/evaluation criteria shown by the Request for Proposal to be delivered to the specified site for the price indicated.

**IT IS THE RESPONDENT'S RESPONSIBILITY TO
CHECK www.demandstar.com FOR FINAL DOCUMENTS
AND ADDENDUMS BEFORE SUBMITTAL**

RESPONSES MUST BE SIGNED BY THE PRINCIPAL OR DIRECTOR AS INDICATED BY THE FLORIDA DEPARTMENT OF STATE, DIVISION OF CORPORATIONS (www.sunbiz.org). Proof of corporate signer must be submitted with Proposal. If not submitted, Proposer will be considered non-responsive. Use Sunbiz website screen shot or copy of Corporate Resolution or Power of Attorney.

FIRM NAME: Tetra Tech, Inc.

TAX ID# SNN or EIN: 95-4148514

PROPOSER ADDRESS: 2301 Lucien Way, Suite 120, Maitland, FL 32751

PURCHASE ORDER ADDRESS: 2301 Lucien Way, Suite 120, Maitland, FL 32751

PHONE NUMBER: (321) 441-8500

COMPANY WEBSITE: www.tetratech.com

COMPANY CONTACT (REP): Betty Kamara, Contracts Administrator

CONTACT EMAIL ADDRESS: betty.kamara@tetratech.com

THE UNDERSIGNED:
SIGNATURE:

A. Acknowledges receipt of:
Number N/A dated .
Number dated .

B. Has examined the site and all RFQ Documents and understands that in submitting his Proposal, they waive all right to plead any misunderstanding regarding the same.

C. Agrees:

1. To hold their response open for 90 calendar days after the bid opening date.
2. To furnish the goods and/or services specified in this RFQ at the prices quoted in my responsive proposal and in compliance with the RFQ Documents.
3. To accept the provisions of the Instructions to Proposers.
4. To negotiate a contract with the City incorporating the proposal prices, if selected on the basis of this Proposal.
5. To accomplish the work in accordance with the contract documents.

D. Certifies:

1. That all information contained in this bid/proposal is truthful to the best of my knowledge and belief.
2. That I am duly authorized to submit this bid/proposal on behalf of the vendor/contractor and that the vendor/contractor is ready, willing, and able to perform if awarded the bid/proposal.

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Subject: Grant Compliance Services (RFQ #23013)

Dear Ms. Duffy and Members of the Evaluation Committee,

Tetra Tech, Inc. (Tetra Tech) is honored to submit the enclosed proposal to the City of Deltona (City) to provide grant compliance services related to federal programs, including Federal Emergency Management Agency's (FEMA's) Hazard Mitigation and Public Assistance (PA) programs, National Resources Conservation Service (NRCS) grants, and other programs that might be needed such as the U.S. Housing and Urban Development (HUD) Community Development Block Grant Disaster Recovery (CDBG-DR). We will leverage our national expertise in FEMA, U.S. Army Corps of Engineers (USACE), NRCS, Florida Department of Environmental Protection (FDEP), and HUD CDBG-DR, and other disaster recovery programs garnered from more than 1,000 engagements with state and local jurisdictions over the last 25 years.

With 27,000 employees, \$4.5 billion in annual revenue, and broad capabilities, including disaster response and recovery, logistics, and infrastructure engineering, the Tetra Tech team has the staffing and financial resources as well as the direct experience needed to successfully complete the services requested. Our firm offers the following qualifications:

- **20-Year Proven History Working Directly with the City.** Tetra Tech has partnered with the City of Deltona for over 20 years providing emergency management, water, wastewater, reclaimed water, stormwater, and other engineering services, completing over 100 projects. Our services have included support to several departments including Public Works, Public Utilities, Development Services, Parks and Recreation and the Building and Fire Department. Our team understands the City's priorities, such as preserving and protecting the area's wetlands and landscape. Previously, our team worked with the City following Hurricane Irma in 2017 to monitor the removal of over 280,000 cubic yards (CYs) of debris and nearly 2,000 hazardous trees and hanging limbs. Our team also recently assisted the City with debris removal monitoring for approximately 140,000 CYs of debris following Hurricane Ian. *This active disaster recovery work and the relationships that we have built with City staff provides us with the knowledge necessary to seamlessly assimilate into the disaster response and recovery lifecycle with no learning curve.*
- **Extensive Experience Throughout the State of Florida.** Since 2004, our team has monitored the collection and removal of almost 60 million CY of debris in Florida and has assisted numerous communities in Florida with disaster response and grant management efforts after Hurricanes Charley, Frances, Jeanne, Ivan, Dennis, Katrina, Wilma, Matthew, Irma, Michael, Sally, and most recently, Ian and Nicole. In addition, our team has assisted communities after a variety of other disasters, including tropical storms, tornadoes, fires, and floods. Tetra Tech is proud of our experience in Florida, including extensive waterway work and direct experience with the Florida Department of Environmental Protection (FDEP). *We have over 900 staff across 22 offices throughout Florida, including our Response and Recovery Division headquarters in Maitland.* Tetra Tech is available to the City before, during, and after a disaster.
- **National Best Practices with a Local Focus.** Tetra Tech is the nation's leading provider of post-disaster grant management, disaster debris monitoring, resilient community planning and engineering services. We have more than \$12 billion of experience in post-disaster grant application, administration, program management, and project delivery. We have assisted clients in response to every major disaster occurring in the United States in the last 10 years, including many Florida communities recently affected by the flooding caused by Hurricane Ian. As a result, we are experts in FEMA reimbursement and methods for maximizing disaster grant funding. Tetra Tech's staff of disaster recovery experts have assisted communities after disasters with issues such as reimbursement costs, long-term community recovery planning, and hazard mitigation program implementation. We offer best in class integrated disaster recovery services to meet the City's needs for current and future disasters.
- **Dedicated Team of Experts with Vast Pool of Resources Available to the City.** Tetra Tech offers broad capabilities across the spectrum of disaster response and recovery services. Having assisted clients in response to every major disaster occurring in the United States for the last two decades, no other firm in the U.S. can boast this full-service capacity, multi-

disciplinary expertise, combined with economic development and infrastructure expertise as Tetra Tech. A vital member of the Tetra Tech Team is **Mr. Chuck McLendon, a resident of Volusia County, served as Principal in Charge for the City of Deltona following Hurricane Irma, and most recently Hurricane Ian**. He has been providing consulting engineering services to federal, state, and local governments across the U.S. for more than 30 years. His background in solid and hazardous waste management has led him to become one of the leading experts in the country on the implementation of large-scale post-disaster debris removal and grant management programs. Additionally, our proposed Project Manager, **Mr. Reuben Meador**, is a seasoned grant manager with more than 20 years of experience that includes serving as HMGP Planning and Program Manager for FEMA. Also, **Ms. Allison McLeary, is an Attorney and the former Recovery Bureau Chief for the Florida Department of Emergency Management (FDEM)** and brings senior-level experience in implementing programs in coordination with federal agencies.

Many of our staff live and work in Central Florida, and in Volusia County and have a personal stake in the success of this contract. Our staff of disaster recovery experts has assisted communities after disasters with issues such as emergency protective measures, infrastructure recovery, grant management, and resilient community planning. We offer best-in-class engineering, integrated project management, and disaster recovery services to meet the City's needs in responding to and recovering from a variety of disaster types.

- **Our program is designed to maximize speed, mitigate risk, and ensure compliance.** Tetra Tech has a proven methodology for assisting clients after large disasters that integrates proprietary technology and our standard operating procedures (SOPs) to reduce costs and expedite programs. Our commitment to the City is to deliver high-quality, audit-ready files, which allows the City to receive reimbursement of funds faster and protect from clawback of funds. Our team has progressively improved this approach when performing similar services for the City of Houston, Texas; Harris County, Texas; Palm Beach County, Florida; Richland County, South Carolina; and more.

For questions regarding this response, please contact the representatives listed below. As an authorized representative of the firm, I am authorized and empowered to sign this proposal and bind the firm in contractual commitments. **Proof of authority has been attached in Section F – Mandatory Forms.**

Technical Representative: Mr. Chuck McLendon

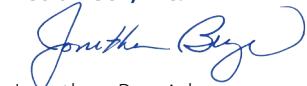
2301 Lucien Way, Suite 120, Maitland, FL 32751
Phone: (407) 353-0342 | Fax: 321-441-8501
chuck.mclendon@tetratech.com

Contractual Representative: Ms. Betty Kamara

2301 Lucien Way, Suite 120, Maitland, FL 32751
Phone: 321-441-8511 | Fax: 321-441-8501
TDR.contracts@tetratech.com

Sincerely,

Tetra Tech, Inc.



Jonathan Burgiel

Business Unit President – Tetra Tech Disaster Recovery

D. Qualifications

Tetra Tech, Inc. (Tetra Tech) was founded as an environmental engineering and technical services firm and has grown to be a worldwide leader whose employees innovate solutions to complex problems focused on water, environment, energy, infrastructure, and natural resources. Since its founding, Tetra Tech became a publicly traded company (NASDAQ-TTEK) in 1991 and now generates annual revenues of over \$4.5 billion. **Each year, Tetra Tech earns top rankings from industry trade journal Engineering News Records. We are currently ranked #4 in the list of Top 500 Design Firms.**

1. General

Company Overview

Tetra Tech was founded as a civil engineering firm by four graduates of the California Institute of Technology in 1966. Our select group of technical experts provided engineering services for waterways, harbors, and coastal areas. During these first decades, Tetra Tech completed projects that had global significance, from a groundbreaking tsunami wave study for the Atomic Energy Commission to master planning and designing coastal protection measures for Egypt's Nile River Delta.

During the 1980s, Tetra Tech met the expanding need for environmental remediation, which involved groundwater modeling, landfill closing, and restoring contaminated military and manufacturing facilities and sites. The firm completed highly visible projects on behalf of the Department of Defense, the Environmental Protection Agency, and other federal agencies, all of which launched the company to its place among the leading environmental and engineering firms in the United States.

In 1991, Tetra Tech became a publicly traded enterprise. Since its initial public offering, the company has grown substantially, expanding its markets, services, and clientele through internal growth and international acquisitions. Today, Tetra Tech is a global leader in providing engineering and technical services. The company is acknowledged for its cutting-edge expertise in sophisticated environmental analysis, modeling, and design and for delivering this expertise effectively across an entire project lifecycle.

Tetra Tech supplemented this proud history with the addition of Disaster Recovery and Emergency Management Operating Units and quickly developed into a national leader in the field of pre- and post-disaster recovery management. Our contracts with federal agencies and state and local governments are in diverse areas such as disaster recovery consulting and technical assistance; staff augmentation; community resilience; grant management; and emergency management planning and preparedness. Since 2001, following our earliest disaster response to Tropical Storm Gabrielle, our team has consistently grown its capabilities and expertise in disaster management, recovery, and consulting services.

Tetra Tech Snapshot

- **Business Organization:** Corporation
- **Stability:** 55+ years in business (founded 1966)
- **Transparency:** Publicly traded (NASDAQ-TTEK)
- **Strength:** \$4.5B annual revenue (FY22)

Engineering News-Record



90+

MAJOR DISASTERS
RESPONSES

25

YEARS IN
DISASTER RECOVERY

172M

CUBIC YARDS OF
DEBRIS MONITORED

\$12B

REIMBURSED
TO CLIENTS

WORKS IN
100+
COUNTRIES



Publicly traded
on NASDAQ as

TTEK
Nasdaq

\$4.5 billion
ANNUAL REVENUE

WORKS ON
100,000
PROJECTS
ANNUALLY

550
OFFICES
WORLDWIDE

ENR RANKINGS

#1 Environmental Management
#2 Solid Waste
#1 Water
#1 Water Treatment/Desalination

20,000
CLIENTS

27,000

ASSOCIATES



Expertise in Disaster Recovery Management

Tetra Tech is a national leader in the field of pre- and post-disaster recovery management. Our contracts with federal agencies and state and local governments are in diverse areas such as disaster recovery consulting and technical assistance; staff augmentation; community resilience; grant management; and emergency management planning and preparedness. We have worked closely with these agencies, recipients, and subrecipients on billions of dollars' worth of projects to determine project eligibility and to provide technical assistance, detailed damage inspection reports, cost estimates, validation and testing, audit documentation, and process reimbursements. Our team also maintains strong relationships with many of the lead federal officers, state agency leadership, local governments, and other staff.

Our team brings together a unique combination of expertise from some of the largest and most complex disasters in U.S. history. Our extensive experience includes leading organizations, shaping policy, and successfully working with diverse stakeholders up to and including top elected leaders. Tetra Tech's senior executives have led responses to some of the most notable incidents and disasters in our nation's history. This real-world experience provides our team with valuable insight and ensures in-depth knowledge of best practices and the ability to provide clients with achievable, customized plans.

Tetra Tech has been activated for over 90 disasters, including:



Office Locations

Tetra Tech's Disaster Recovery Headquarters, located in Maitland, will be the main office to service this contract with the City. This office is supported by several other offices in the Central Florida area, and throughout the State as depicted on the map below.



22 Offices in Florida

Over 1,000 Employees
Throughout the State

 Tetra Tech Office

*Multiple offices in this city

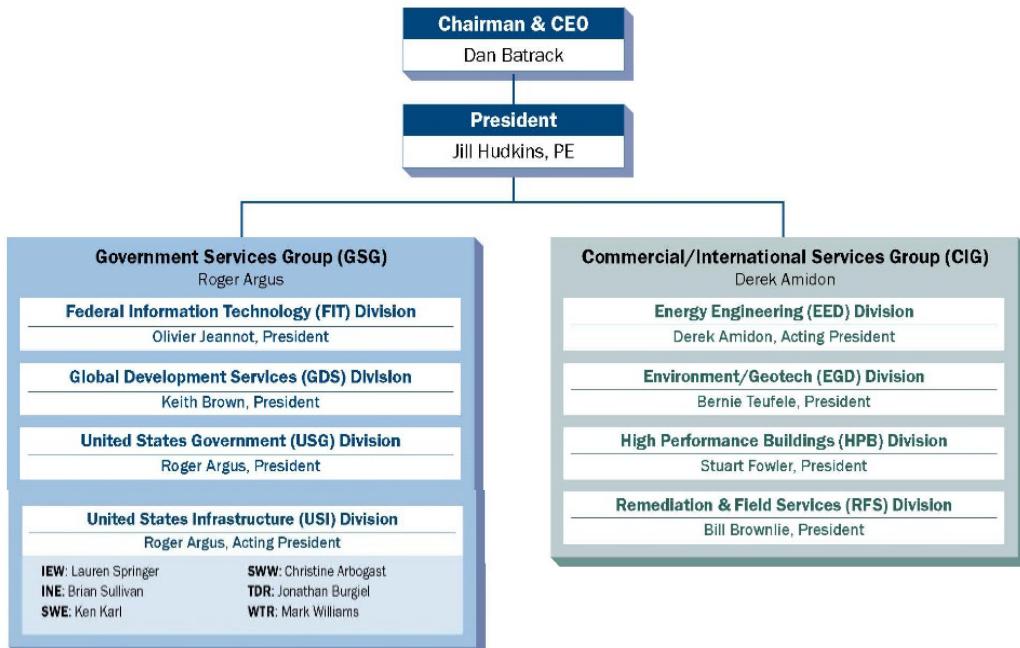
Corporate Organizational Structure

Tetra Tech, Inc. is a publicly traded company. Our common stock is traded on the NASDAQ Global Select Market under the symbol TTEK. We have not had, nor do we anticipate, any recent or materially significant proposed change in ownership.

We manage our operations under two reportable segments. Our Government Services Group (GSG) reportable segment primarily includes activities with U.S. government clients (federal, state and local) and all activities with development agencies worldwide. Our Commercial/International Services Group reportable segment primarily includes activities with U.S. commercial clients and international clients other than development agencies. Tetra Tech's disaster recovery business unit (TDR) is part of the United States Government (USG) Division, within the GSG.

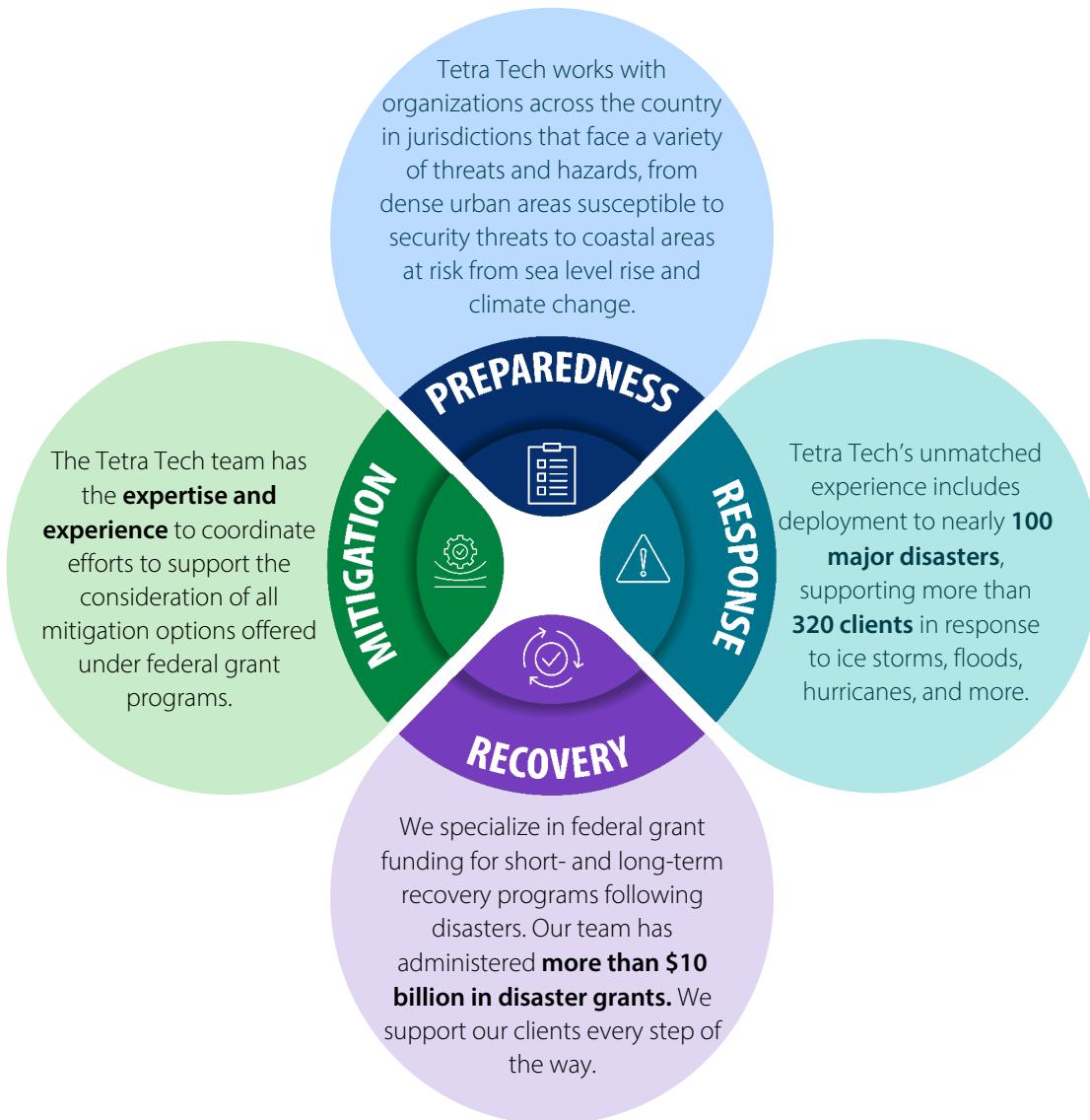


FY2023 OPERATIONS



2. Firm Experience

Tetra Tech is a full-service consultation and engineering firm with a dedicated emergency management department that works in all phases of the emergency management cycle. As an experienced leader in administering Federal recovery programs, Tetra Tech knows what it takes to respond effectively and initiate recovery activities almost simultaneously, while maintaining transparency for the public, funding agencies, and elected officials. We are preferred planners and managers because of our active involvement in response and recovery efforts. The culmination of our experience and approach will allow Tetra Tech to aptly provide disaster recovery management and infrastructure development consultant services for federally funded projects that are tailored to fit local needs in the City.



Throughout the course of the hundreds of grant management and debris management projects that our staff has administered for state and local governments across the U.S., our team has developed a **deep understanding of FEMA, HUD, NRCS, FDEP, FHWA, and other regulatory agencies' policies and procedures.**

Our team has worked closely with FEMA and FHWA staff in the determination of eligibility, meeting data requirements, Project Worksheet/detailed damage inspection report development, and auditing of documentation. This includes providing step-by-step assistance to clients throughout the reimbursement process. **To maximize funding for our clients and for subrecipients, our staff members maintain a working relationship with FEMA at the headquarters, regional, and local levels.**

25+ Years of Disaster Grant Program Management Experience

Our team offers experienced disaster management professionals who are adept at helping organizations recover quickly by applying proven methodologies in disaster management. Along with disaster management, we have expertise in insurance claims as well as how Public Assistance (PA), Hazard Mitigation Grant Program (HMGP), insurance, and HUD grants interplay with one another. Our top priority is to facilitate the process, orchestrating a rapid and effective recovery.

Tetra Tech Disaster Recovery is a national leader in the field of disaster management. Our activations have yielded grant program management engagements resulting in **clients garnering and retaining 99.8 percent of the funds received.**

Tetra Tech offers **comprehensive services...**

- Construction Management
- Hazard Mitigation Planning
- Floodplain Management
- Coastal Planning and Design
- National Flood Insurance Program (NFIP) Compliance Issue Resolution/Training
- Preliminary Damage Requests
- Develop Requests for Public Assistance
- Applicant Briefings and Kickoff Meetings
- Site Visits/Inspections
- Project Cost Estimation & Documentation
- Architecture and Civil Engineering
- Geotechnical Engineering
- Structural Engineering
- Mechanical/Electrical/Plumbing
- Water/Wastewater Design/Build
- PW/Application Development
- Alternate/Improved/Pilot Projects
- Project Cost Reconciliation
- Funding Disbursement
- Grant Closeout
- U.S. Treasury Emergency Rental Assistance (ERA)
- Coronavirus Relief Fund (CRF)
- Coronavirus Aid, Relief, and Economic Security (CARES) Act
- American Rescue Plan Act (ARPA)
- HUD CDBG-CV
- HUD CDBG-DR/MIT
- FEMA PA Program (including Section 406 mitigation and Section 428 alternative procedures)
- FEMA Hazard Mitigation Grant Program (HMGP) (Section 404 mitigation)
- FEMA Building Resilient Infrastructure and Communities (BRIC)
- FEMA Flood Mitigation Assistance Program (FMA)
- FHWA-ER Program
- FHWA Transportation Investment Generating Economic Recovery Grant
- Natural Resources Conservation Service (NRCS) Emergency Watershed Protection

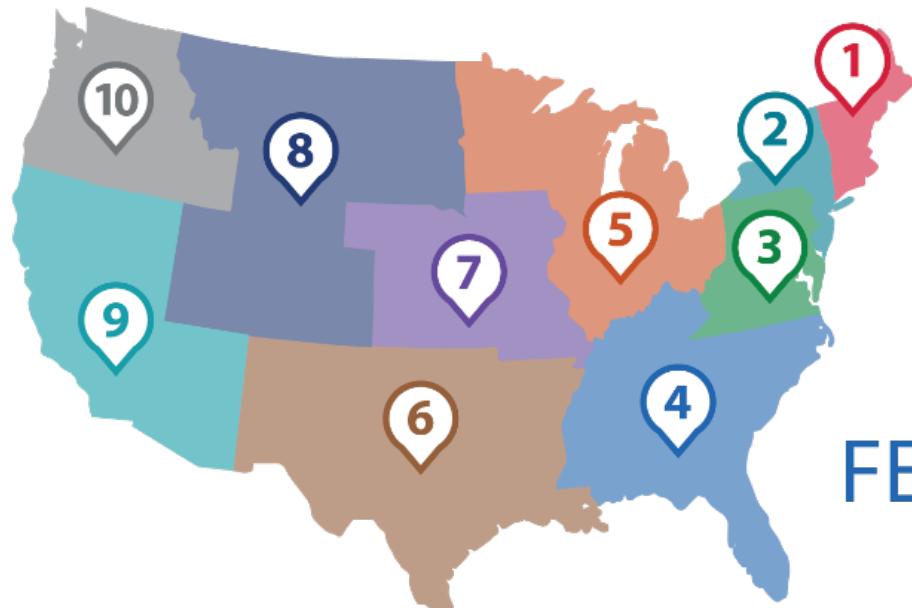
...across a multitude of **federal grants.**

What do our clients say?

"Tetra Tech has been instrumental in addressing some of the key areas needed to complete project closeout for our prioritized disasters. Tetra Tech has been an asset and expert partner in our disaster recovery efforts."

--Lynne Browning, Assistant Deputy Director - Public Assistance
Louisiana Governor's Office of Homeland Security and Emergency Preparedness

Our team holds comprehensive qualifications in working both for and with FEMA. In addition to having worked across all 10 FEMA Regions, Tetra Tech **maintains six current contracts directly supporting FEMA**, in addition to our routine work with FEMA as part of state and local projects seeking FEMA reimbursement.



... working nationwide across all 10 FEMA Regions.

We support our clients in **every stage of disaster recovery**.



Disaster Preparedness

- Recovery planning
- Capacity building
- Public education



Short-term Recovery

- Disaster debris
- Mass sheltering
- Infrastructure systems



Intermediate Recovery

- Public information
- Housing solutions
- Natural and cultural resources



Long-term Recovery

- Mitigation strategies
- Disaster cost reimbursement
- Infrastructure repair



Federal Grant Compliance

- FEMA (PA, HMG, IA)
- HUD CDBG (MIT, DR)
- CARES (CRF, ARPA)

Focus On FEMA Programs

\$12 billion+ Managed

Experience Summary

Our team holds comprehensive qualifications in working both for and with State/Recipient agencies and FEMA. Tetra Tech maintains six current contracts directly supporting FEMA, in addition to our routine work with FEMA Recipients and Subrecipients as part of state and local projects seeking reimbursement.

Our experience supporting clients with FEMA programs includes

- FEMA PA Program
- Section 406 mitigation and Section 428 alternative procedures program
- FEMA Hazard Mitigation Grant Program (HMGP)
- Section 404 mitigation
- FEMA Individual Assistance (IA) Program
- FEMA Flood Mitigation Assistance Program (FMA)
- FEMA Building Resilient Infrastructure and Communities (BRIC)

FEMA Focus Areas



Tailored Procedures

Our procedures are tailored to facilitate FEMA review and generation of Project Worksheet versions. Tetra Tech incorporates changes and/or updates to the PAPPG, IAPPG, FEMA IHP Unified Guidance, and Hazard Mitigation Assistance Guidance into our procedures.



Understanding of FEMA Regulations

Our management team and field staff fully understand rules and regulations across FEMA programs. This allows us to monitor contracts in detail while managing and documenting the operation using proven methodologies to maximize reimbursement.



Relationships Regional Reps

Our team maintains strong relationships with many of the lead federal coordinating officers, PA/IA officers, and other staff. Regular interface and communication with FEMA at the headquarters, regional, and local levels allow our team to obtain quick responses on guidance and issues.



Audits and Appeals

Our grant management experts have assisted clients with applying for and retaining grant funds, even after closeout and audit processes. Our FEMA appeals and funding specialists have worked with FEMA closeout officers to obtain millions of previously deobligated dollars.

Focus On HUD Programs

\$5 billion+ Managed

Experience Summary

Our team members have decades of experience working within HUD's CDBG program eligibility framework and have successfully leveraged public funds for our clients. We work with jurisdictions to complete applications and identify, evaluate, and prioritize recovery projects, ensuring eligibility with federal funding programs. The Tetra Tech team has worked with dozens of communities across the nation to ensure that recovery planning efforts are launched and implemented with long-term sustainability, risk reduction and elimination, and community economic and safety resiliency in mind.

From Tropical Storm Jeanne to Hurricane Maria, along with countless other disasters, our team of experts has supported recovery efforts throughout the territories and mainland.

HUD Focus Areas



Action Plan Alignment

Annual action plans guide the actions and activities to be carried out each year to address each jurisdiction's priority needs and goals. In addition to carefully aligning our project activities with these stated goals, we have also helped multiple State-level clients develop their action plans.



Whole Community Recovery

HUD provides flexible funding to help communities recover. Tetra Tech engages local partners with deep roots in the communities we serve to help expand the impact of programming with equitable access for disproportionately impacted communities.



Hyperlocal Focus

We have helped our clients administer HUD programming at the State and local level. In all activities, we focus on engaging local partners, building local capacity, and returning positive impact to the community through both program activities and project outputs.



Long-term Solutions

Tetra Tech helps its partners design and deliver solutions that last. From resilient infrastructure to reducing repetitive losses, we help leverage HUD funding to shape long-term approaches to mitigate the immediate and future impacts of disasters.

Recent Sample Projects

Year	Client	Program	Unmet Needs	Applicant Kickoff	Site Visits/Inspections	Project Development	Program Management & Documentation	Action Plan Development	Environmental Reviews	Financial Management	Progress Inspections	Funding Disbursement
2022	Commonwealth of Puerto Rico	CDBG-DR/MIT	■	■	■	■	■	■	■	■	■	■
2020	U.S. Virgin Islands	CDBG-MIT				■		■				
2019	Harris County, TX	CDBG-DR/MIT			■	■			■	■	■	■
2019	Commonwealth of Puerto Rico	CDBG-DR	■	■	■	■	■	■	■	■	■	■
2018	State of Florida DEO	CDBG-DR			■				■			■
2017	State of Louisiana OCD	CDBG-DR			■				■			■
2016	St. John's County, FL	CDBG-DR		■	■	■	■	■	■	■	■	■
2016	Lexington County, SC	CDBG-MIT	■	■	■	■	■	■	■	■	■	■
2015	Richland County, SC	CDBG-DR	■	■	■	■	■	■	■	■	■	■
2015	City of Houston, TX	CDBG-DR			■	■		■				
2013	NY/NJ DEP	CDBG-DR			■		■		■		■	■

Mitigation

Hazard mitigation is an essential tool to break the cycle of damage due to disasters. Tetra Tech is a leader in assisting states and municipalities in hazard mitigation planning and program execution. As the recovery to a disaster begins or preparations are made prior to a future disaster, it is critical that all operations consider available hazard mitigation opportunities. The Tetra Tech team has the expertise and experience to coordinate the City's efforts to support the consideration of all mitigation options. Tetra Tech provides the following services:

- Mitigation Program Administration
- Mitigation Planning and Hazard Assessment
- Section 404 and 406 Mitigation Integration
- Hazard Mitigation Assistance Program Application and Implementation (HMGP, FMA, and PDM)

Tetra Tech has a multidisciplinary team of toxicologists, chemists, ecologists, biologists, geologists, modelers, data managers, and environmental scientists that provide environmental risk expertise to the public and private sectors. Many of our scientists have graduate-level degrees and contribute to the scientific community by publishing in peer-reviewed journals and participating in presentations at national conferences of technical and professional organizations.

FEMA 404 Hazard Mitigation Grant Program (HMGP)

The Tetra Tech team is prepared to assist with identifying future mitigation grant opportunities to supplement the disaster-related mitigation programs through FEMA's 404 HMGP program. Tetra Tech is prepared to assist the City with HMGP services, including preparing applications, conducting outreach to potential property owners, developing application scopes, assessing cost-effectiveness (cost-benefit analysis), regulatory clearances, grant implementation, and audit and closeout services. Currently, Tetra Tech is assisting communities in Florida, California, Idaho, North Carolina, New Jersey, Ohio, Oregon, Washington, South Carolina, and Texas with HMGP and FMA grants.

Subrecipients participating in the FEMA PA Program can access Section 406 Mitigation funds during the development of PWs for damaged public facilities. The Section 406 program is designed to enhance the facility's ability to perform against future disasters, thus protecting it from repetitive loss. By maximizing Section 406 Mitigation opportunities, the City can reserve more finite funding sources such as HMGP or CDBG-DR to satisfy other unmet needs. Increasing the use of Section 406 Mitigation funds will also add to the total amount of PA funds, thereby increasing the HMGP funds made available to the City. Tetra Tech has unmatched depth in the areas of Benefit Cost Analysis (BCA) on 406 and 404 mitigation projects. Our team is experienced in utilizing social and economic benefits to increase BCA ratios when handling some of the most complex projects and developing LOIs to maximize use of this funding.

Tetra Tech's HMGP experience includes clients at every scale, including:

- Galveston County, TX | SRL Elevation 2011 and 2015
- Montgomery County | TX/SRL Elevation 2016
- Fort Bend County, TX | HMGP Buyouts & Elevation 2016
- City of Houston, TX | Action Plan 2015
- City of Houston, TX | Unmet Needs Analysis
- Richland County, SC | HMGP Buyouts 2015
- State of Idaho | Office of Emergency Management
- City of Roseville, CA
- Barnwell School Board, SC | Hurricane Safe Room
- Manheim Borough, PA | Flood project; BRIC FY2021; HMGP (DR-4506)
- Brandywine Conservancy and Museum of Art, PA; Elevation of Historic Structures | HMGP (DR-4618)
- Wayne County, OH | HMGP Acquisitions
- Pasco County, FL | DR-4068
- Dougherty County, GA | DR-4284
- Gwinnett County, GA | DR-1858
- Clark Energy Co-op, KY | DR-4284
- City of Charleston, SC | DR-1858
- City of Charleston, SC | DR-4241
- City of Sumter, SC | DR-4286
- Lexington County, SC | DR-4241
- Richland County, SC | DR-4241
- City of Houston
- City of Houston
- Galveston County | DR-1791
- Galveston County | DR-1791



- State of Connecticut | HMGP Closeouts
- Walton County, FL | FMA Application and Elevations 2015 - 2022
- Gwinnett, GA | HMGP Buyouts
- Virginia Beach, VA 2014
- King County, WA | On-call
- Snoqualmie, WA | On-call
- Rochelle Park NJ | Elevations; FMA 2021
- New Jersey Office of Emergency Management | FMA and HMGP technical support
- Ocean City NJ | Elevations Grant Management
- Whatcom County, WA | HMGP Elevations & Acquisitions 2022
- Montgomery County, TX | DR-4269
- Port of Galveston, TX | DR-1791
- City of Callaway, FL | DR-4399
- City of Lynn Haven, FL | DR-4399
- State of Connecticut
- City of Daytona Beach, FL | DR-1840

United States Department of Housing and Urban Development Community Development Block Grant Disaster Recovery and Mitigation (CDBG-DR/MIT)

Tetra Tech has experience with HUD CDBG-DR grant programs at every level, including program design, implementation, monitoring, and closeout. We have worked with a diverse range of clients, including Harris County, Texas; Richland County, South Carolina, St. John's County, Florida; DHSEM of Puerto Rico; Lexington County, South Carolina; the City of Houston, Texas, and more. We also have experience working with HUD CDBG-MIT and CDBG-CV grant programs.

Tetra Tech provides knowledge, experience, and technical competence in the planning, administration, and implementation of eligible CDBG activities as identified at 24 CFR Part 570 and modified or waived under the Federal Register allocation of the CDBG funds. Our team members have decades of experience working within HUD's CDBG program eligibility framework and have successfully leveraged public funds for our clients. We work with jurisdictions to complete applications and identify, evaluate, and prioritize recovery projects, ensuring eligibility with federal funding programs. The Tetra Tech team has worked with dozens of communities across the nation to ensure that recovery planning efforts are launched and implemented with long-term sustainability, risk reduction and elimination, and community economic and safety resiliency in mind.

Tetra Tech has worked with communities across the country providing CDBG services ranging from Action Plans to project implementation. Our team has provided CDBG-related services to a variety of clients, all with different needs, staffing levels, and magnitude of awards. We are currently engaged with the US Virgin Island in development of the CDBG DR Electrical Grid Action Plan and development of the CDBG MIT Application Process.

HUD CDBG-DR Project Development and Management. Tetra Tech has a thorough understanding of the CDBG program and the multitude of rules and regulations necessary for compliance. A current and relevant example of Tetra Tech's experience with CDBG is our current engagement with the Puerto Rico Department of Housing (PRDOH), working in coordination with another firm, to manage the City Revitalization Program (CRP), a CDBG DR-funded program to assist municipalities with hurricane recovery. Tetra Tech provides assistance to the municipalities at every stage of the process to develop and manage compliant, practical projects that meet the goals, objectives and regulatory standards of CDBG and the government of Puerto Rico.

HUD CDBG Payment Processing and Compliance. Tetra Tech has professional staff that can track payment processing and ensure program compliance. Our professionals have truly "seen it all" and there are no compliance issues that they have not encountered either as consultants or employees of Federal, state, and local agencies. Tetra Tech can assist the Territory with the development of mock "monitorings" to prepare for HUD monitoring and audits. We can develop policies and procedures that engineer compliance into the DNA of program management.

Tetra Tech brings CDBG projects to fruition with the knowledge that they can withstand the rigors of programmatic monitoring and financial audits.

HUD CDBG-DR Technical Assistance. Tetra Tech has extensive experience with HUD's CDBG-DR program across the nation for both state and locally administered programs. Our team members have a laudable record of helping communities prepare the CDBG-DR Action Plans and develop and implement the CDBG-DR programs. These services have helped communities bolster their recovery efforts and build long-term resilience. We can offer CDBG technical assistance for the following CDBG topics, among others:

- National Objective and Eligible Activity Compliance

- Contract and Subrecipient Agreement Compliance
- Environmental and NEPA Compliance
- Uniform Relocation Act
- Davis-Bacon Act and Fair Labor Standards Act
- Procurement
- Financial Management Best Practices
- Budgeting for CDBG
- Prevention and Detection of Waste, Fraud and Abuse
- Waiver Requests and Interpretation

Tetra Tech has successfully completed more than 2,800 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 staffs and resources to villages having few or shared resources. These projects illustrate our successful ability to work with local governments, big and small, with varying degrees of capability. They are relevant because each one of these projects has refined tools that work in any environment. This experience will directly translate into a successful planning effort.

Tetra Tech's CDBG-DR action planning and hazard mitigation planning skills include the ability to successfully manage complex, multi-task, and multidisciplinary projects, often under expedited schedules and tight budgets. Tetra Tech already has best practice knowledge, tools, and resources designed specifically for planning projects, which will provide the Territory with a streamlined process and cost savings.

Following are some further examples of Tetra Tech's experience:

- Tetra Tech is currently implementing the CDBG MIT application process for the Virgin Islands Housing Finance Authority (VIHFA).
- Tetra Tech assisted Richland County, SC with the preparation of their CDBG-DR Action Plan that was approved by HUD in 5 working days. Tetra Tech assisted the County with the development of their \$21M CDBG-MIT action plan which was completed in January 2020.
- Tetra Tech was retained by the City of Houston to develop the infrastructure section of their 2015 CDBG-DR Action Plan. Tetra Tech was responsible for plan writing, analyzing flood data and project identification of infrastructure projects that support impacted neighborhoods in low to moderate areas. In addition, Tetra Tech completed a Flood Infrastructure Unmet Needs Analysis and Project Identification for the 2016 CDBG-DR allocation.
- Tetra Tech staff developed the CDBG-DR Action Plan for Dauphin County, Pennsylvania's \$13 million CDBG-DR award. They conducted the unmet assessment, developed the programs and the required Action Plan, and prepared amendments to the Action Plan.
- Tetra Tech led the development of CDBG-DR Community Reconstruction Plans for 11 New York communities devastated by impacts of Superstorm Sandy, Hurricane Irene, and Tropical Storm Lee under the State of New York's NY Rising Reconstruction Planning program. These plans provided a strategic plan for the use of more than \$33 million of CDBG-DR funding.

In addition, our team strives to build solid, actionable plans and to be available as an ongoing resource while the community builds its own local capabilities to implement its initiatives and activities. Our long-term commitment to these programs is evidenced by the following:

- Our staff are ASFPM-Certified Floodplain Managers (CFM) and maintain their certification through regular continuing education. Our staff provide unparalleled knowledge on leveraging the Community Rating System (CRS) to improve the



resilience of municipalities. We currently have existing on-call contracts with four of the five highest-rated communities in the nation, and we have an on-call contract to support the City of Roseville, CA CRS program for the nation's only Class 1 CRS community.

- Our mitigation technical professions are demonstrated national leaders in FEMA Benefit-Cost Analyses and HMA grant applications for mitigation projects nationwide presenting at national and regional ASFPM conferences.
- Our staff have managed and supported climate change assessments for state and federal entities. Our proposed team has evaluated the vulnerability of critical assets to climate change impacts and identified adaptation options to address those vulnerabilities. Further, Tetra Tech is part of a federal project to explore the links between community resiliency and green infrastructure at the municipal level. Green infrastructure is being used to help mitigate projected climate change impacts in concert with resiliency planning.
- The proposed team has assisted hundreds of counties and municipalities with successful grant applications, resulting in tens of millions of dollars in funding for structural elevations, acquisitions, and other mitigation projects. Further, our proposed staff members have assisted with project management and grant administration for numerous grant-funded projects.

Natural Resources Conservation Service Grants (Streambank Stabilization/Acquisitions)

Tetra Tech is a company founded in water conveyance and water resource management. Our firm consistently ranks among the top engineering firms annually according to *Engineering News-Record*. Tetra Tech has been consistently rated 1st in the "Water" category for 19 years.

We have worked for and understand NRCS as an agency and are familiar with NRCS policies and guidance, including the National Engineering Manual (NEM), the National Engineering Handbook (NEH), the National Watershed Manual (NWM), and the National Operation & Maintenance Manual. We use NRCS Technical References on a regular basis, including Urban Hydrology in Small Watersheds (TR-55), Earth Dams and Reservoirs (TR-60), Design Notes, Conservation Practice Standards, and Standard Construction and Material Specifications.

Tetra Tech project specializes in river mechanics, hydraulic engineering, sediment transport, and engineering geomorphology, and is highly experienced in the development of channel stabilization and bank protection techniques. Depending on the available data, our team has conducted rainfall runoff analyses using the USACE's HEC-HMS program for projects nationwide. These models include frequency-duration (e.g., 100-year, 24-hour) events using rainfall inputs from NOAA Atlas 14. We have applied NRCS methods, including TR-55 and WinTR-20/55, stream gage analyses, or regional regression equations.

Hydraulic modeling of the bank stabilization sites can also be performed to evaluate the existing hydraulic conditions over a range of appropriate flows. One-dimensional (1-D) HEC-RAS models will probably be all that is required, but Tetra Tech is highly experienced with a wide range of 2-D hydraulic and sediment-transport models should the need arise, including HEC-RAS 2D and SRH-2D. Output from the models is used to develop and evaluate the design alternatives.

Tech has developed channel and bank stabilization designs using a variety of methods, including NRCS guidelines. Our team develops stabilization techniques that meet necessary objectives, including erosion protection and constructability. The preliminary and final bank stabilization construction plans are drawn according to standards described in NEH Part 541. The construction specifications are established consistent with NEH Part 642.



What Do Our Clients Say?

"Tetra Tech did an excellent job in developing a recommended plan that met the Sponsor's goals and NRCS program requirements. The supplemental Watershed Plan and Environmental Assessment (Plan/EA), and the supporting appendices for hydrology/hydraulics, economics, design, cost estimating, and environmental studies were excellent."

David McKay – NRCS Arizona State Conservationist, Regarding Florence Flood Retarding Structure

"Tetra Tech did an excellent job in developing a recommended plan that met all the requirements of the Natural Resource Conservation Service (NRCS) National Watershed Manual (NWSM), the National Environmental Policy Act (NEPA), and the "Economic and Environmental Principles and Guidelines for Water and Related Land Resources Implementation Studies" (P&G).

Mr. Bob Tillman – NRCS Oklahoma Water Resources Planning Coordinator, Regarding Sallisaw Creek Site 18M

"The design team did an excellent job in developing Construction Drawings and Specifications, Cost Estimate and Bid Schedule, Construction Schedule, Permitting Information, and a comprehensive Design Engineer's Report. The project had an extremely tight schedule that was dictated by the availability of construction funding from the New Mexico Office of the State Engineer. Despite the fast-track nature of the project and additions to the scope of work, your staff consistently delivered high quality products on time and on budget."

David Pacheco – NRCS New Mexico State Conservation Engineer, Regarding Piedra Liza Dam

Florida Department of Environmental Protection

Tetra Tech has extensive beach and marine debris removal program management experience, including past waterway experience working with the Florida Department of Environmental Protection (FDEP). Following Hurricanes Michael, Irma, and Matthew, FDEP activated its debris monitoring contract with Tetra Tech for waterway debris removal from Econfina Creek, St. Joseph Preserve, and multiple counties, including Brevard, Lee, Nassau, St. Johns, and Volusia. Tetra Tech performed preliminary assessments of disaster debris in waterways and monitored recovery contractor operations, verifying FEMA compliance, and providing recommendations to improve project efficiency and the speed of recovery work.

FEMA Public Assistance

Tetra Tech's FEMA reimbursement technical assistance consulting services involve providing guidance and technical assistance for project applications and programs for disaster reimbursement related to response and recovery efforts on behalf of our clients. Tetra Tech has far-reaching experience in assisting clients in post-disaster grant application, administration, program management, and project delivery, including direct experience with funding Categories A-G of the FEMA PA Program. Our team has extensive experience assisting local and state governments with navigating this process and works with officials to properly manage and document work that is eligible for federal funding through FEMA programs.

Tetra Tech's grant administrators document eligible work in the field and organize such documentation in an audit-ready format for future review. This includes guidance requiring that grantees or subgrantees monitor the expenditure of funds and document such expenditures in a manner that will satisfy regulatory audits in the future. This includes Section 3, Fair Housing, 2 CFR Part 200, and other Federal grant requirements.

Tetra Tech has supported clients in processing FEMA PA grant funding across all categories of work, including:

Category A	Category B	Category C	Category D	Category E	Category F	Category G
						
Debris Removal	Emergency Protective Measures	Roads and Bridges	Water Control Facilities	Public Buildings and Contents	Public Utilities	Parks, Recreational, and Other Facilities
Emergency Work		Permanent Work				

Our team has extensive experience managing and documenting projects that are eligible for federal funding through federal programs, including multiple, large programs for the Commonwealth of Puerto Rico, Vermont, Texas, Virginia, Massachusetts, South Dakota, and Connecticut as well as PA Programs for the City of Philadelphia and City of Houston, Texas; Boulder County, Colorado; and Volusia County, Florida. The following provides a brief selection of our experience providing financial recovery and grant management services to large local and state governments.



State of Louisiana

Supporting legacy and future disasters, totaling \$139M in approved costs to-date



Commonwealth of Puerto Rico

Managing \$5.6B in federally awarded funds



City of Philadelphia, PA

Since 2020, managed funding totaling \$276M CRF, \$248M ERAP, \$1.4B ARPA, and \$75M FEMA PA



State of Missouri

Supporting FEMA PA Programs for 10 years over 14 disasters totaling \$756M



City of Houston, TX

Multiple programs including \$2.3B in HUD CDBG, \$15M PA COVID-19 Funding, \$405M CRF, and \$607M ARPA



State of Connecticut

Managed \$405M in FEMA PA and \$20M in HMGP



Harris County, TX

Supporting multiple recent disasters, totaling \$6.5M FEMA PA, \$426M CRF, and \$266M in FEMA COVID-19 funding



State of California

Supporting the State's multi-billion dollar debris missions since 2017

Overview of Federal Grant Funding Experience

Year	Client	Event	Program	Value (\$)	Preliminary Damage Request	Develop Request for Public Assistance	Applicant Briefing	Applicant Kickoff Meeting	Site Visits/Inspections	Project Scoping	Project Cost Estimation & Documentation	PW/Application Development	Alternate/Improved/Pilot Program Projects	Project Cost Reconciliation	Interim Inspections	Funding Disbursement	Grant Closeout	Audit/Appeals Support
2022	Fort Myers, City of, FL	DR-4673	PA	45,000,000	■	■	■	■	■	■	■	■	■	■	■	■	■	
2022	South Daytona, City of FL	DR-4673	PA	3,490,481	■	■	■	■	■	■	■	■	■	■	■	■	■	
2022	Cape Coral, City of, FL	DR-4673	Grant Mgmt	8,271,500	■				■	■								
2022	Collier County, FL	DR-4673	PA	TBD	■	■	■	■										
2022	Pinellas County, FL	DR-4673	PA	5,000,000						■	■	■		■				
2022	Volusia County, FL	DR-4673	PA	33,918,834				■	■	■	■							
2022	Holly Hill, City of, FL	DR-4673	PA	3,050,000	■	■	■	■	■	■	■	■	■	■	■			
2022	Orange City, City of, FL	DR-4673	PA	598,323			■	■	■	■	■	■						
2022	Iowa, State of	CV19	CCS	227,500,000						■	■			■		■		
2022	Lexington County, SC	DR 4241	CDBG-MIT	15,000,000	■	■	■	■	■	■	■	■	■	■	■	■	■	
2022	City of Philadelphia, PA	DR 4618	PA	10,000,000	■	■	■	■	■	■	■	■	■	■			■	
2022	Richland County, SC	CV19	ERAP	12,500,000						■	■			■		■		
2021	Texas, State of	CV19	ERAP	1,308,000,000						■	■			■		■		
2021	Richland County SC	CV19	ERAP	12,500,000						■	■			■		■		
2021	Broward County, FL	CV19	ERAP	58,965,000						■	■			■		■		
2021	Charleston County, SC	CV19	ERAP	22,200,000						■	■			■		■		
2021	Pinellas County, FL	CV19	ERAP	21,400,000						■	■			■		■		
2021	St. Petersburg, FL	CV19	ERAP	8,000,000						■	■			■		■		
2021	Leon County, FL	CV19	ERAP	19,600,000						■	■			■		■		
2021	Mobile County, AL	CV19	ERAP	12,300,000						■	■			■		■		
2021	Winston-Salem/Forsyth City, NC	CV19	ERAP	11,500,000						■	■			■		■		
2021	Greenville County, SC	CV19	ERAP	15,800,000						■	■			■		■		
2021	Orlando, FL	CV19	ERAP	8,600,000						■	■			■		■		
2021	Lexington County, SC	DR-4241	CDBG-MIT	15,000,000	■	■	■	■	■	■	■	■	■	■	■	■	■	
2021	Monroe County, FL	DR-4337	CDBG-DR	15,000,000	■	■	■	■	■	■	■	■	■	■	■	■	■	
2021	Walton County, FL	CV19	COVID PA	131,470	■	■	■	■	■	■	■	■	■	■	■	■	■	
2021	Frisco, TX	DR 4586	FEMA PA	700,000						■	■	■	■	■	■	■	■	
2021	Frisco, TX	CV19	FEMA PA	500,000						■	■	■	■	■	■	■	■	
2021	Frisco, TX	CV19	CRF	3,700,000						■	■	■	■	■	■	■	■	
2021	Harris County, TX	DR 4586	PA	12,300,000	■					■	■			■		■	■	

Year	Client	Event	Program	Value (\$)	Preliminary Damage Request	Develop Request for Public Assistance	Applicant Briefing	Applicant Kickoff Meeting	Site Visits/Inspections	Project Scoping	Project Cost Estimation & Documentation	PW/Application Development	Alternate/Improved/Pilot Program Projects	Project Cost Reconciliation	Interim Inspections	Funding Disbursement	Grant Closeout	Audit/Appeals Support
2021	Philadelphia, PA	DR 4618	PA	10,000,000	■	■						■		■				
2021	Ft. Myers, FL	DR 4486	PA, CRF	2,748,000								■		■				
2020	Hamilton County, TN	DR-4514 CV19	FEMA PA	1,000,000	■	■	■	■	■	■	■	■	■	■	■	■	■	
2020	Commonwealth of Massachusetts	DR 4496	FEMA PA	200,000,000	■	■	■	■	■	■	■	■	■	■	■	■	■	
2020	Harris County, TX	DR 4855	FEMA PA	200,000,000	■	■	■	■	■	■	■	■	■	■	■	■	■	
2020	Houston, TX	DR 4855	FEMA PA	10,000,000	■	■	■	■	■	■	■	■	■	■	■	■	■	
2020	Miami, FL	DR-4337	Appeals	17,000,000														■
2020	Houston, TX	CV19	CRF	404,000,000									■					
2020	Philadelphia, PA	CV19	CRF	276,400,000								■						
2020	Palm Beach County, FL	CV19	CRF	261,000,000								■						
2020	Brevard County, FL	CV19	CRF	105,000,000								■						
2020	U.S. Virgin Islands Housing	DR 4335-VI DR 4340-VI	CDBG-MIT	2,000,000,000								■	■					
2020	LA GOHSEP Vernon-Parish	DR 4559	PA	13,000,000								■	■					
2020	LA GOHSEP Lafayette Delta	DR 4570	PA	14,488,000														
2020	LA GOHSEP Abbeville Laura	DR 4559	PA	376,000								■	■					
2020	LA GOHSEP Lafayette Laura	DR 4559	PA	3,757,000														
2020	LA GOHSEP Abbeville Delta	DR 4570	PA	222,000								■	■					
2020	Houston, TX	DR 4586	PA	10,000,000	■	■	■	■	■	■	■	■	■	■	■	■	■	
2020	Long Beach, CA	DR 4482	PA, CRF	150,753,000								■	■	■	■	■	■	
2020	Iowa Department of Human Services	DR 4482	CRF	7,800,000								■	■	■				
2020	LA GOHSEP SAL	DR 4570, DR 4559	PA	312,600,000	■	■	■	■	■	■	■	■						
2020	LA GOHSEP COVID19 TO 8.2	DR 4484	PA	87,048,000								■						
2020	CR-Mass COVID-19 WO3/05	DR 4496	PA	75,000,000		■	■		■	■	■	■	■	■				
2020	State of Connecticut	DR 4500	PA	1,000,000,000								■	■	■	■	■	■	■
2020	Philadelphia, PA	DR 4506	PA, CRF, HMG	375,000,000					■	■	■	■	■	■	■	■	■	
2020	Dunedin, FL	DR 4486	PA	38,000	■	■	■	■	■	■	■	■	■	■	■			
2020	Harris County, TX	DR 4485	PA, CRF	200,000,000	■	■	■	■	■	■	■	■	■	■	■			
				426,000,000														

Year	Client	Event	Program	Value (\$)	Preliminary Damage Request	Develop Request for Public Assistance	Applicant Briefing	Applicant Kickoff Meeting	Site Visits/Inspections	Project Scoping	Project Cost Estimation & Documentation	PW/Application Development	Alternate/Improved/Pilot Program Projects	Project Cost Reconciliation	Interim Inspections	Funding Disbursement	Grant Closeout	Audit/Appeals Support
2020	Houston, TX		CRF	404,000,000										■			■	
2020	Houston, TX	DR 4332	PA	575,000,000	■	■	■	■	■	■	■	■	■	■	■	■	■	
2019	Harris County, TX	DR 4332	CDBG	1,200,000,000					■	■				■	■	■	■	
2019	Missouri, State of	DR 4451	PA	2,947,200							■			■	■	■	■	
2019	Missouri, State of	DR 4435	PA	5,664,229						■			■	■	■	■	■	
2019	Commonwealth of Puerto Rico	DR 4339	PA, HMGP	60,000,000,000	■	■	■	■	■	■	■	■	■	■	■			
2019	Barnwell County, SC	DR 4479	HMGP	4,800,000														
2018	State of Florida DEO	DR 4337	CDBG-DR	616,000,000	■	■	■	■	■	■	■	■	■	■	■	■	■	
2018	Callaway, FL	DR 4399	PA	50,000,000	■	■	■	■	■	■	■	■	■	■	■	■	■	
2018	Lynn Haven, FL	DR 4399	PA	50,000,000	■	■	■	■	■	■	■	■	■	■	■			
2018	Dougherty County, GA	DR 4400	PA	10,000,000	■	■												
2018	Albany, GA	DR 4400	PA	10,000,000	■	■												
2018	Ventura County, CA	DR 4353	PA	100,000,000						■	■	■						
2018	Callaway, FL	DR 4399	PA	27,098,000	■	■	■	■	■	■	■	■	■	■	■	■	■	
2018	Lynn Haven, FL	DR 4399	PA	54,810,000	■	■	■	■	■	■	■	■	■	■	■	■	■	
2018	Albany, GA	DR 4400	PA	17,773,000	■	■	■	■	■	■	■	■	■	■				
2018	Anchorage, AK	DR 4413	PA	11,936,000					■	■	■	■	■	■	■	■	■	
2018	Lake County, CA	DR 5262	PA	21,531,000									■					
2018	Ventura County, CA	DR 4407	PA	76,755,681									■					
2018	Lake County, CA	DR 4399	PA	1,990,433,000									■					
2018	Walton County, TX		FMA	1,500,000								■						
2018	Houston, TX	DR 4485	PA	12,500,000	■	■	■	■	■	■	■	■	■	■	■		■	
2017	State of Louisiana OCD	DR 4277	CDBG-DR	1,600,000,000	■				■								■	
2017	Houston, TX	DR 4332	PA	2,400,000,000	■	■	■	■	■	■	■	■	■	■	■	■		
2017	South Daytona, FL	DR 4337	PA	6,000,000					■	■	■	■	■	■	■	■	■	
2017	Fort Bend County, TX	DR 4332	PA	50,000,000	■	■	■	■	■	■	■	■	■	■	■	■		
2017	Albany, GA	DR 4294	PA	14,000,000	■	■	■	■	■	■	■	■	■	■	■	■		
2017	DR 4297		PA															
2017	Dougherty County, GA	DR 4297	PA	12,500,000	■	■	■	■	■	■	■	■	■	■	■	■		
2017	Port of Corpus Christi, TX	DR 4332	PA	10,000,000					■	■	■	■	■	■	■	■	■	
2017	Butte County, CA	DR 4407	PA	1,500,000,000								■						

Spotlight On: 20-Year History Working with the City

Tetra Tech has partnered with the City of Deltona for **over 20 years** providing water, wastewater, reclaimed water, stormwater, and other engineering services, **completing over 100 projects**. Our services have included support to several departments including Public Works, Public Utilities, Development Services, Parks and Recreation and the Building and Fire Department.

Tetra Tech has served as a Continuing Consultant for the City of Deltona since April 2002. Public works support services have included: CIP planning and budgeting; stormwater utility study and rate adjustment; public relations on controversial projects; stormwater retrofit projects; cost estimates; peer reviews of projects by others; flood plain modeling and mapping; grant support; stormwater master plan updates; mapping of various infrastructure; construction administration; CEI services; preliminary design reports; and emergency management support during flooding.

Tetra Tech's support to public utilities includes water and wastewater master plans; design and permitting of water and wastewater utility projects; rate studies; engineering services to relocate utilities for roadway projects; and water and wastewater treatment plant improvement projects.

Support to the Development services has included reviews of commercial industrial site plans; attending DRC meetings; conducting site inspections; preparing development review manuals and policies; preparing GIS maps for various functions such as floodplains and problem lots that should be given higher levels of consideration during the development review process.

Tetra Tech also coordinated and managed the City's debris removal program following hurricanes in 2004, 2016, 2017, and 2022.

Hurricane Matthew in 2016 and Hurricane Irma in 2017, both resulted in the collection of right of way debris along with the removal of hazardous trees and limbs with a total collection of over 100,000 CYs of debris for Matthew and over 280,000 CYs of debris for Irma.

In 2022, Hurricane Ian swept a path across central Florida as one of the strongest hurricanes in Florida's history, bringing crushing winds approaching 155 miles per hour and flooding to low-lying portions of the city. Tetra Tech was able to continue our relationship and assist the City utilizing the same regional manager across all activations. Tetra Tech immediately mobilized to assist in the debris removal efforts for the city following Hurricane Ian.

Recovery efforts included the removal of both vegetative debris from the strong winds and a notable amount of construction and demolition debris from the flooding. Pickup efforts were paced to account for the slower turn out of the construction and demolition debris as the flood waters were slow to recede from the homes of the residents.

Our team's active disaster recovery work and the relationships that we have built with City staff provides us with the knowledge necessary to seamlessly assimilate into the disaster response and recovery lifecycle with no learning curve.



Spotlight On: Hazard Mitigation Technical Assistance Program (HMTAP) Support

As part of the Alliance for Resilience and Mitigation (ARM) joint venture, Tetra Tech is currently providing technical assistance to FEMA through HMTAP. Tetra Tech is leading the task orders described below.

Hazard Mitigation Assistance (HMA) Grant Program Technical Assistance

Tetra Tech is providing technical assistance services under this task order to provide support to FEMA headquarters and FEMA regional partners to address pre- and post-disaster mitigation grant responsibilities. ARM will assist Regions V, VI, and VII in administering the program for 15 COVID-19 disaster declarations by conducting grant application reviews, hazard mitigation plan (HMP) reviews, Environmental Historic Preservation (EHP), and Benefit-Cost Analysis (BCA) technical reviews, and outreach. ARM will also provide technical assistance to Regions V, VI, and VII by supporting RFIs and FEMA regional coordination with applicants and sub-applicants.

Federal Insurance and Mitigation Administration (FIMA) NFIP Data Sharing Support

Tetra Tech is currently leading the task order to assist FIMA in enhancing its data sharing support processes. In this task order, ARM will process FIMA's backlog of NFIP data requests and will improve FIMA's procedures for providing NFIP data that includes personally identifiable information (PII).

Local Substantial Damage SOPs (Ideal State)

FEMA Region VI requested that ARM develop a Substantial Damage Response Plan (SDRP) that can be used as an example to communities who face the daunting post-incident challenge of inspecting and tracking structures for permitting when damaged. The SDRP is more than a standard operating procedure; it provides communities with actionable steps to maintain compliance with the NFIP. Our team is undertaking the following steps in the development of the SDRP:

- Assess community vulnerability to substantial damage.
- Assemble a team for managing substantial damage with a capability assessment.
- Identify post-event efforts related to substantial damage.
- Build a property database of possible structures because of repetitive loss and pre-firm construction.
- Identify actions to address substantial damage.
- Determine steps for SDRP implementation and maintenance updates.

ARM is using the CRS Substantial Damage Plan activity as the foundation for this task order, customizing it to fit the community needs and capabilities. The basis for the task order is building a database of addresses of buildings that might be susceptible to sustaining damage exceeding 50% of market value (prior to damage). This database is a living document and will require at least annual updating. Removing addresses based on mitigation actions would eliminate the need for post-incident inspections, and after an incident, new addresses might be added pending on the severity of the incident. A capability assessment of the community staff will determine if the community needs support conducting inspections and developing options for such support. The optimum outcome is to provide a community with a list of areas likely to be the first inspected post-incident as a triage step with studied elevations or past history loss. Outreach to the community will be developed to inform property owners of the various sites.

3. Team Experience

Tetra Tech brings together a deeply qualified team whose expertise has been sharpened through our response to many of the largest and most complex disasters in recent U.S. history. Our team has in-depth knowledge of multiple funding programs, including the Federal Emergency Management Agency (FEMA) Public Assistance (PA) and Individual Assistance Programs, FEMA Hazard Mitigation Grant Program (HMGP), U.S. Housing and Urban Development (HUD) Community Development Block Grant (CDBG) Program, U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS), National Environmental Protection Agency (NEPA), Office of Inspector General (OIG), U.S. Treasury COVID-19 appropriation, among others.

Our technical advisors have worked with and, in some cases, have served as employees of many of the federal funding agencies that will be providing federal grant support. With these relationships, critical decisions and key issues can be addressed at the highest level.

Tetra Tech's close relationships with federal agencies results in a collaborative, nonconfrontational approach. This cooperative approach results in strong working relationships, frequent discussions, fewer disputes, and a faster, more efficient recovery process that ultimately generates higher financial reimbursement to our clients. As previous and current clients will attest, our relationships with FEMA and HUD have allowed us to be strong advocates for our clients' needs and to achieve truly successful results.

We are committed to providing a **consistent and coordinated project team** to successfully complete this scope of work and affirm our ability to commence full operations immediately after notification of award.



Organizational Chart

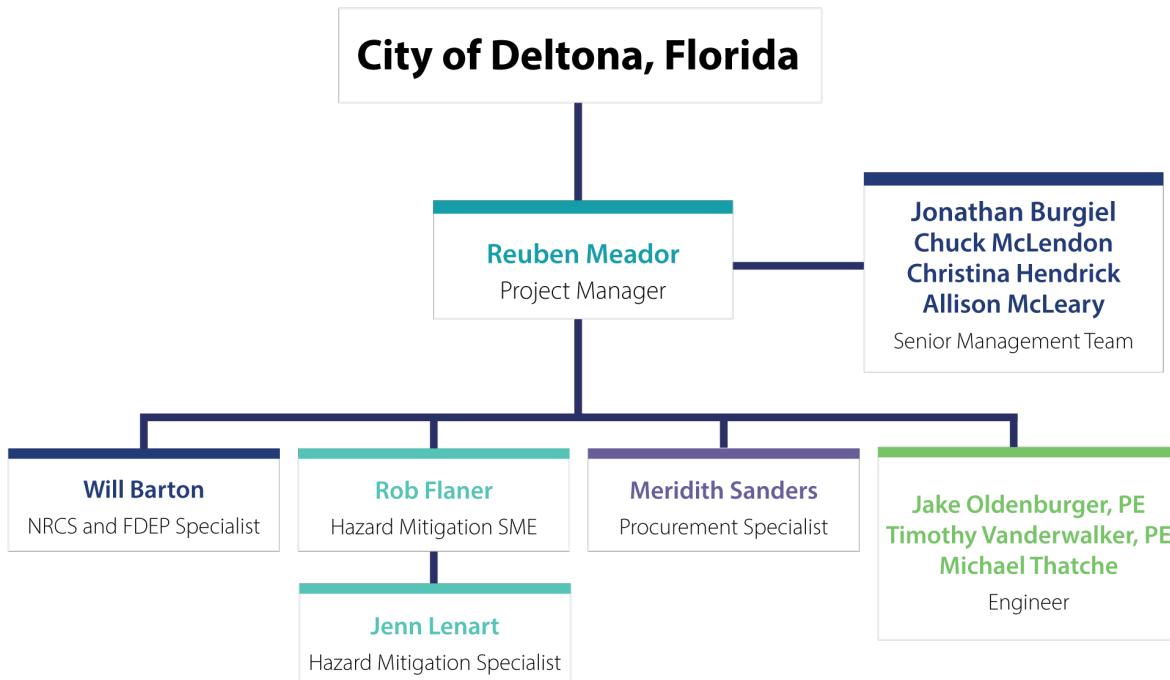
Tetra Tech has assembled a project team with the qualifications and expertise necessary to support the City. The individuals selected for this project not only have national expertise from having worked on every major disaster in the past decade, but also have **hands-on experience working on prior (or current) Florida-based projects**. As a result, our staff has an in-depth understanding of how disaster response and recovery works in Florida.

Our primary day-to-day contact for this engagement will be Ms. Christina Hendrick. Ms. Hendrick is part of our senior management team and will serve as the program manager for this engagement. Information regarding her experience is included on the following page.

We understand that this program will deliver transformative projects to support the City's priorities; there is no room for staffing delays in programs that are designed to positively benefit the whole community. **Our key personnel are immediately available to work on the proposed scope of work.**

As a provider of similar services for other grantees, we have the ability to quickly relocate experienced personnel to the project, either temporarily or permanently, to augment City staffing resources. In addition, we have a dedicated recruiting team that works hand in hand with our operational team to ensure that necessary positions are posted publicly and recruited on an ongoing basis. This allows us to fill needed positions quickly and with little to no gap in coverage. As depicted in our organizational chart, our team is also supported by senior management and subject matter experts who are available to provide support to the project on a moment's notice.

We will serve as an extension of City staff and can provide additional staffing resources, as needed.



Senior Management and Advisory Team

Our senior management and advisory team will provide expert oversight and assistance at critical junctures. This team is prepared to provide both tactical and strategic guidance for the duration of any disaster recovery operation. These individuals bring decades of disaster debris monitoring and reimbursement expertise. **Resumes for project management and advisory staff have been provided in the Appendix.**



Mr. Chuck McLendon, a resident of Volusia County, served as Principal in Charge for the City of Deltona following Hurricane Irma. He has been providing consulting engineering services to federal, state, and local governments across the U.S. for more than 30 years. His background in solid and hazardous waste management has led him to become one of the leading experts in the country on the implementation of large-scale post-disaster debris removal programs. He leads large teams to support major infrastructure and emergency response efforts, including most recently to Miami Dade County's response to the Surfside condo collapse. Mr. McLendon has served as principal in charge for upwards of 30 major disaster activations, including projects totaling more than 150 million CYs of debris and approximately \$2.5 billion in FEMA PA reimbursement. He lends this expert-level insight to help overcome any obstacles the City may encounter in recovery



Ms. Christina Hendrick is a seasoned grant manager with more than 14 years of experience. She has overseen more than \$4 billion of FEMA and U.S. Department of Housing and Urban Development (HUD) grant funding under FEMA PA, FEMA Hazard Mitigation Grant Program (HMGP), COVID-19, and Community Development Block Grant (CDBG) programs. In her current role as a Deputy Director for financial recovery services, Ms. Hendrick has maintained oversight of Tetra Tech's most critical PA and CDBG recovery projects across 7 FEMA regions, as well as multiple COVID-19 recovery projects utilizing PA, CARES Act and other grant funding. She has served as a business management expert, strategic planner, and business planning leader for clients such as the City of Houston and Harris County, Texas; City of Philadelphia, Pennsylvania; Palm Beach County, Florida; Barnwell County, South Carolina; Dougherty County, Georgia; Richland County, South Carolina; Hamilton County, Tennessee; and states such as Louisiana and Massachusetts.



As President of Tetra Tech's Disaster Recovery Business Unit, **Mr. Jonathan Burgiel** manages the business operations of all disaster recovery efforts, including preparedness planning, project staffing, logistics, grant administration and agency reimbursement support, program accounting/auditing oversight, and contract negotiations. Mr. Burgiel has 30+ years of solid waste and disaster recovery experience, and **over 20 years of experience working with Volusia County**. He is intimately familiar with local, state, and federal solid waste and hazardous waste regulations, as well as FEMA, HUD, NRCS, and FDEP policies and reimbursement procedures as they relate to disaster management and recovery. Mr. Burgiel's disaster-related work has included serving as principal in charge of over 100 projects, helping clients throughout the country prepare for, respond to, and recover from natural and human-caused disasters. Mr. Burgiel has led projects for numerous Florida clients, including Miami Dade County, Pinellas County, and St. Johns County.



Ms. Allison McLeary, JD is an attorney and experienced emergency response and recovery executive with a demonstrated history of building meaningful relationships across all levels of government. **As former Recovery Bureau Chief of the Florida Division of Emergency Management**, she offers years of direct experience administering grant programming throughout the State of Florida. She also served as Recovery Counsel for the Louisiana Governor's Office of Homeland Security and Emergency Preparedness (GOHSEP). She is a steadfast advisor in planning for, responding to, and recovering from challenges and disasters. Ms. McLeary is an expert in FEMA policies, building and maintaining relationships with FEMA representatives. Additionally, Ms. McLeary coordinates relationships with funding agencies and local partners to streamline project operations.

Key Personnel

Tetra Tech has identified a team of program staff to support the City. We have selected team members who have previous experience in similar operations. **Brief summaries of each of our team members' experience are provided below. Resumes for these staff have also been provided in the Appendix.**

Proposed Staff	Brief Introduction
Reuben Meador, CPM, CSND <i>Project Manager, Hazard Mitigation</i>	Mr. Meador is a highly qualified emergency management executive with approximately 19 years of expert experience working with the private non-profit sector, and federal, state, and local governments, including working as a senior manager for FEMA. Mr. Meador possesses a firm grasp of the 44 CFR/2 CFR, the Stafford Act, as well as HUD-related disaster recovery and mitigation programs to meet the emergency preparation and disaster recovery business needs of communities on a small and large scale. Mr. Meador has served as a senior-level program manager since 2004. He has managed a vast variety of programs ranging from Hazard Mitigation to CDBG-DR. He has successfully led programs to assist clients in the recovery from more than 20 major disasters including Hurricane Irma and Hurricane Maria.
Robert Flaner, Hazard Mitigation Subject Matter Expert	Mr. Flaner has spent over 30 years developing a comprehensive background in all aspects of floodplain management while administering the Community Rating System (CRS) under contract with FEMA. During his tenure with the CRS program, Mr. Flaner developed strong working relationships with federal, state, and local partners. Flaner has expanded his diverse experience in 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. Utilizing planning tools such as HAZUS-MH, FEMA's Benefit-Cost Analysis Re-engineering (BCAR), and the CRS 10-step planning template. Mr. Flaner has supported local governments across the country in all phases of emergency management.
Jenn Lenart, Hazard Mitigation Specialist	Ms. Lenart is the National GIS Coordinator for the mitigation and resilience practices for Tetra Tech. Ms. Lenart has worked on numerous hazard mitigation plans for the States of New Jersey, New York, Pennsylvania, and Texas. Ms. Lenart has worked on numerous benefit-cost analyses for regional and statewide HMTAP programs and FEMA HMGP, Flood Mitigation Assistance (FMA), and Building Resilient Infrastructure and Communities (BRIC) grant application programs. She has also performed risk assessments for dozens of private and public stakeholders throughout the country to analyze the stakeholder's constituents risk to future climate change conditions and proposed efforts to reduce losses related to economic, environmental, and social variables caused by future climate change conditions. Ms. Lenart has performed large data analyses in ESRI ArcGIS, FEMA's Hazus-MH Tool, and FEMA's BCAR tool.
Meridith Sanders, Procurement	Ms. Sanders is a financial recovery and management professional with a wide range of experience throughout her 9-year career. She evaluates existing contracts and procurements for FEMA Public Assistance 2 CFR 200 compliance and draft addendums to reduce risk of deobligation. She also conducts applicant timesheet review and creation of force account labor, material, and equipment summaries and has drafted local match waiver documentation for multiple clients.
Timothy Vanderwalker, PE <i>Senior Engineer</i>	Mr. Vanderwalker has gained experience in project execution through planning, design, permitting, construction, and certification. He has worked with private and public clients from the municipal to federal levels. His technical expertise includes the preparation of contract documents including plans, specifications, and development of opinions of cost for numerous infrastructure projects including transportation and roadway improvement projects, water system improvement projects, and water reuse projects. He has experience in transportation geometric design, stormwater design, and railroad coordination and design. He also has experience in developing reports relevant to reclaimed water use and emergency response policy, along with aiding clients in obtaining grant funding. Mr.

Vanderwalker has assisted the City of Deltona with stormwater projects, park improvements, and some facilities work.

**Michael Thatcher, PE,
CDT, ENV SP
Engineer**

Mr. Thatcher has served in the Civil Engineering industry since 2012 as a Senior Project Engineer and Technical Group Leader. Mr. Thatcher has wide-ranging experience in the execution of utility infrastructure improvement projects. He has an extensive background in the design and implementation of water/wastewater facilities, including major utility improvement and expansion projects, collection, transmission, and distribution systems, pump stations, utility master planning, and financial planning services including utility assessments. He is proficient in the preparation of construction documents, including drawings and comprehensive project manuals. Most recently, Mr. Thatcher **assisted the City of Deltona with the design of a surface water intake and pumping station from Lake Monroe to the City's Alexander Avenue Water Management Site to treat and supplement for the City's reclaimed water system.**

**Jake Oldenburger, PE,
CFM, ENV SP Engineer**

Mr. Oldenburger has over 12 years of experience in civil engineering, stormwater management, land development, and construction. His project experience has focused on projects throughout the tri-state area, as well as Texas and Florida. He has effectively overseen the performance and preparation of detailed engineering designs for permitting and construction. His expertise lies in flood resiliency design and feasibility studies, hydraulic analyses and calculations, stormwater management reports, flood studies, soil erosion and sediment control designs and reports, site grading and earthwork analyses, survey, construction coordination and inspections. Over the past few years, he has specialized in resiliency and flood mitigation planning in response to hurricanes in Florida, New York, and Texas.

Will Barton, NRCS and FDEP Specialist

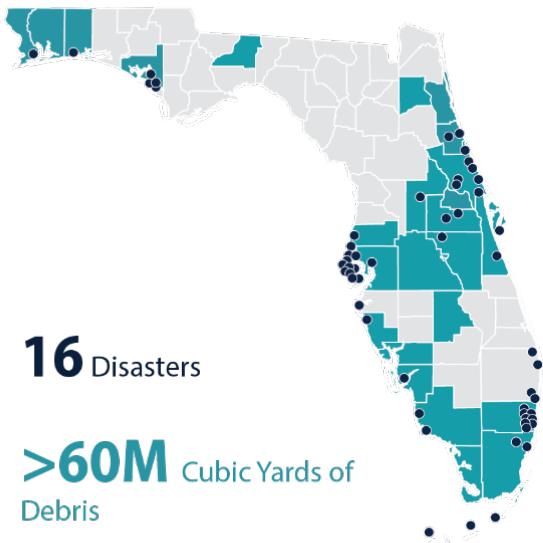
Mr. Barton has over 17 years of experience. He has developed an extensive understanding of federal, state, and local regulations, protocols, processes, and guidance with respect to homeland security response, and recovery. His experience includes working with the USDA Natural Resources Conservation Service on issues involving debris in waterways after several natural disasters. Following the impact of Hurricane Ian on the Florida coast, Mr. Barton was deployed as a regional manager to oversee multiple projects, including waterways, in the Sarasota area. In response to Hurricane Irma, Mr. Barton served as the project manager for a Collier County waterways debris removal program to address debris in waterways.

4. Florida Knowledge

Tetra Tech has the local staffing resources, key relationships, and direct experience with the City to reinforce the City's efforts in the next stage of recovery. We are proud long-term partners in disaster response and recovery for communities across Florida, having responded to every major disaster in Florida since 2001. In response to these events, our team has overseen 141 debris monitoring projects amounting to over 60 million CYs of debris across the State, and dozens of grant management projects as a result of multiple disasters. Due to our vast experience, we have become experts in Florida's unique needs disaster response and recovery needs.

As Floridians, we are personally invested in Florida's recovery.

Florida Debris Monitoring Projects



16 Disasters

>60M Cubic Yards of Debris

140+ Projects

24 Offices and

>900 Personnel throughout the State

2022	Hurricane Ian 23 clients
2021	Surfside Condo Collapse 10,264 tons 1 client
2020	Hurricane Sally 1,652,200 CYs 2 clients
2018	Hurricane Michael 9,248,830 CYs 13 clients
2017	Hurricane Irma 21,442,478 cubic yards 59 clients
2016	Hurricane Matthew 2,738,106 cubic yards 14 clients
2012	Hurricane Debby 7,253 cubic yards 3 clients
2008	Tropical Storm Fay 50,000 cubic yards 3 clients
2007	Groundhog Day Tornadoes 281,000 cubic yards 2 clients
2005	Hurricane Dennis 3,917,267 cubic yards 5 clients
	Hurricane Katrina 9,942,000 cubic yards 11 clients
	Hurricane Rita 4,810,000 cubic yards 3 clients
	Hurricane Wilma 8,914,000 cubic yards 17 clients
2004	Hurricane Charley 1,652,200 cubic yards 2 clients
	Hurricane Frances 500,000 cubic yards 2 clients
	Hurricane Ivan 7,475,554 cubic yards 3 clients
	Hurricane Jeanne 350,000 cubic yards 2 clients
2001	Tropical Storm Gabrielle 1 client

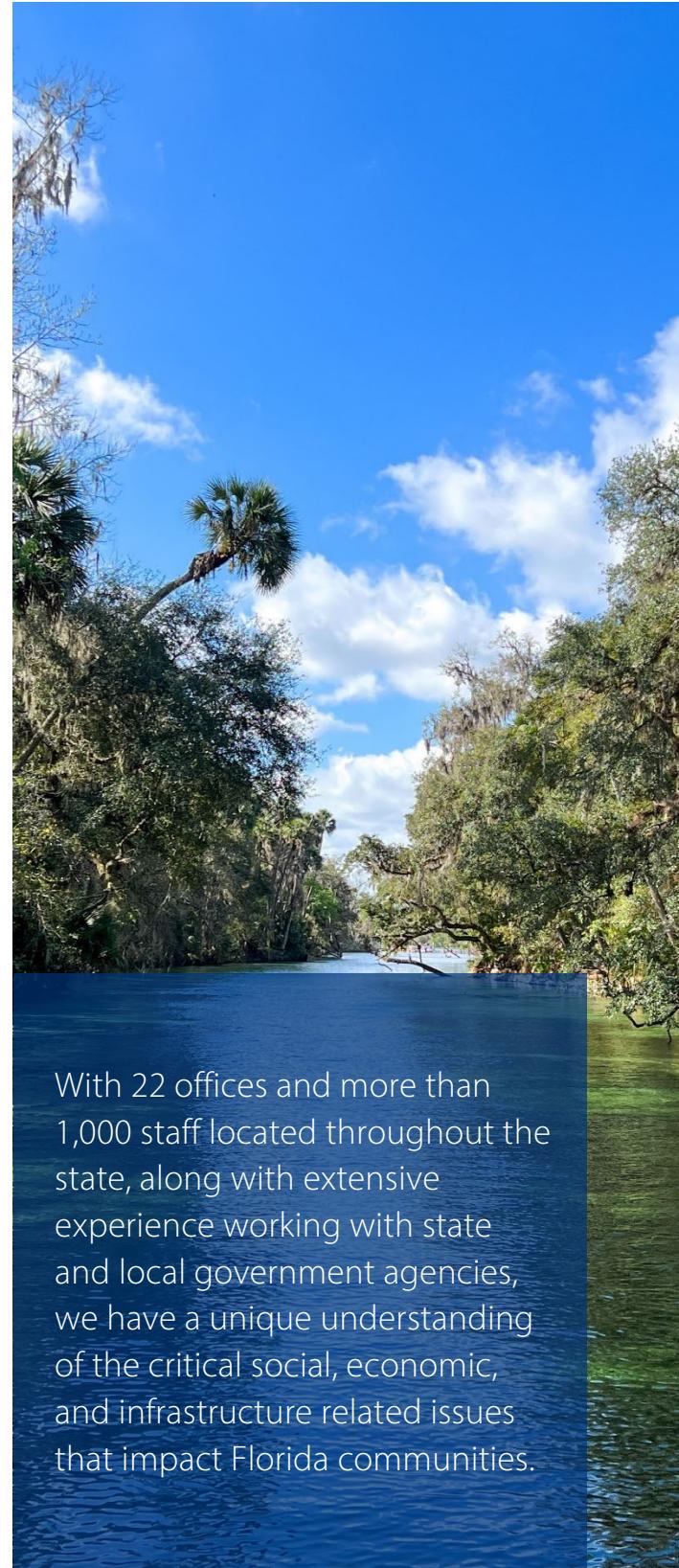
Tetra Tech Understands the Issues that are Most Critical to Florida Communities

For more than 25 years, Tetra Tech has provided disaster response and recovery services in the State of Florida, including state government agencies such as the Florida Department of Economic Opportunity, the Florida Division of Emergency Management, and the Florida Department of Environmental Protection - as well hundreds of city and county government agencies. With 22 offices and more than 1,000 staff located throughout the state, we have a unique understanding of the critical social, economic, and infrastructure related issues that impact Florida communities.

Florida continues to struggle with a number of challenging social, economic, and governance related issues. Many of these issues such as school choice, gun control, and social media will have little impact on City operations. However, there are a number of issues that are critical to the City including home rule, climate change and resiliency, affordable housing, and water quality and stormwater issues.

Within the State of Florida, there continues to be a battle between state and local government over home rule and the laws and ordinances that local government can pass without state intervention. Our state suffers an affordable housing crisis with many local governments recently imposing local ordinances to provide some guard rails on rising rents. Given the importance of tourism and our natural environment and continued threats, such as red tide blooms, the state continues to invest in water quality through septic to sewer programs and enhanced stormwater programs. Finally, many government agencies are suffering from an aging workforce and the challenges to retain and attract workers to government positions is increasingly difficult.

Given the most recent impacts (severe flooding) of Hurricane Ian on the City and its staff, we would anticipate that stormwater and employee retention issues are at the top of the list. Many of the infrastructure related projects that the City of Deltona needs to implement in the near future may take years to implement – and as such it is critical to have a steady-state partner that understands these challenges and has the local staff and expertise to overcome them. Given this understanding of the City's challenges, we know that our team at Tetra Tech - and our best-in-class experience in managing state and federal grant funds - can be a critical partner to the on-going success of the City of Deltona.



With 22 offices and more than 1,000 staff located throughout the state, along with extensive experience working with state and local government agencies, we have a unique understanding of the critical social, economic, and infrastructure related issues that impact Florida communities.

HURRICANE IAN

Event Recap (DR-4673):

Hurricane Ian was a devastating Category 4 hurricane that made landfall in Southwest Florida on September 28, 2022. A destructive storm surge was pushed inland in coastal areas, while high winds and extreme rainfall caused catastrophic damage and flooding across Florida's interior. It is estimated that Hurricane Ian caused more than \$50 billion in damages in Florida.

Key Tetra Tech Accomplishments:

- Mobilized more than **1,000 staff in 5 days**
- Deployment of **water and wastewater engineers** to restore Lee County water systems
- Immediate response operations with transition to long-term recovery
- More than **6.7 million cubic yards of disaster debris** monitored for federal documentation and reimbursement
- Supporting **complex projects up to \$45 million in FEMA PA funding** to support recovery



Disaster Type:
Hurricane



Number of Clients:
38



Number of Staff:
1,400 at peak



Duration of Work:
October 2022 –
Ongoing

Representative Clients:

Florida Division of Emergency Management • **Florida Department of Environmental Protection** • **City of Deltona, FL** • Brevard County, FL • City of Cape Coral, FL • Charlotte County, FL • Collier County, FL • City of Fort Myers, FL • Pinellas County, FL • Volusia County, FL • Manatee County, FL • Osceola County, FL • Polk County, FL

5. References

Tetra Tech has provided descriptions for the projects included on the reference form. Tetra Tech is proud of the long-term relationships we have developed throughout the years and encourages the City to contact each of our client references to obtain comments on the quality of services we provide.



Reference #1 - Volusia County, Florida

FEMA Grant Management, Technical Assistance and Site Inspection Support

Hurricane Matthew devastated the coastal communities of Volusia County in October 2016, when it made landfall as a Category 2 hurricane. Our team has been supporting Volusia County for many years and was available to assist prior to the storm making landfall as well as in the immediate aftermath. Tetra Tech mobilized a team within hours and began the process of supporting debris removal monitoring and operations.

In addition to providing debris monitoring services, Tetra Tech was a crucial part of the operations planning team, providing consulting in the EOC while initial operations were unfolding and helping with special disaster-specific tasks like getting temporary debris sites permitted and putting together the documentation to request FEMA approval of debris collection on private roads, and initiating a debris hotline to support citizen questions.

Additionally, our team of grant management specialists provided staff augmentation to the County in order to write FEMA project worksheets for reimbursement claims estimated at \$30,000,000. These project worksheets encompass all categories of work and include improved projects, alternate projects, and 406 hazard mitigation. Tetra Tech is also providing Technical Assistance to the County for other post-disaster federal grants including USDA, HUD, and FHWA-ER.

Most recently, following Hurricane Ian Tetra Tech supported the County by providing qualified coastal engineers and technical specialists during FEMA site inspections to advise County staff and ensure that all damages were captured accurately and in totality. Tetra Tech continues to support the County by reviewing FEMA Site Inspection Reports (SIRs), developing 406 hazard mitigation proposals, and by advising on best practices for maximizing flexibility and reimbursements through the FEMA Public Assistance Alternative Procedures (428) program.

CLIENT

Volusia County

LOCATION

Florida

DURATION

October 2016 – August 2018
(Matthew)

September 2022 – Present (Ian)

COST

\$399,160 (Matthew)
\$496,805 (Ian)

REFERENCE

**Arden Fontaine,
Activity Project Manager**
123 W Indiana Ave. Room 300
DeLand, FL 32720
(386) 736-5965 (Ext. 15621)
Afontaine@volusia.org



Reference #2 - South Daytona, Florida

Hurricane Ian Grant Management Support

Hurricane Ian devastated the coastal communities of Volusia County in September 2022, when it made landfall as a Category 4 hurricane and was responsible for five fatalities in the County. Due to extreme winds and storm surge, the City of South Daytona (South Daytona) sustained significant damage to numerous facilities and infrastructure.

Tetra Tech assisted South Daytona as soon after the storm's impact by deploying a dedicated team to the site. Tetra Tech has been supporting South Daytona with the documentation and administrative processes to develop FEMA project worksheets (PWs) for reimbursement claims.

While providing overall project management and oversight, Tetra Tech's team also worked on conducting site inspections, collecting, and reviewing documentation, managing the documents and Essential Elements of Information in FEMA's Grants Portal, and providing daily guidance to South Daytona.

Tetra Tech continues to support South Daytona by providing the documentation and support necessary to develop FEMA PWs for reimbursement claims estimated in excess of \$3.5 million.

Previously, Tetra Tech provided debris monitoring and grant management support to South Daytona following Hurricanes Matthew and Irma.

CLIENT

South Daytona, Florida

DURATION

October 2022 - Present

COST

\$100,00

REFERENCE

Jason Oliva, Finance Director

1672 S. Ridgewood Avenue
South Daytona, FL 32119

(386) 322-3063

joliva@southdaytona.org



Reference #3 - Collier County, Florida

Grant Management Services and NRCS Support

Over the last two decades, Tetra Tech has provided a variety of disaster recovery assistance to Collier County – from debris management planning and training to major post-disaster debris monitoring assignments.

In September of 2022, Category 4 Hurricane Ian crushed Charlotte County with winds approaching 155 miles per hour. Tetra Tech is currently providing the County with debris monitoring services for its right-of-way debris, hazardous leaners and hangers, park, private roads, waterways, and ditches. Tetra Tech is also providing FEMA Public Assistance services to the County.

Following a direct landfall by Hurricane Irma in 2017, Tetra Tech provided total program management for the Collier County debris removal mission. In addition to debris monitoring, we served as the County's representative tasked with overseeing ROW debris removal; processing, site management and haul-out; private road and gated community debris removal; and leaner, hanger and stump removal. At the peak of the project, Tetra Tech employed nearly 200 monitors and over the course of four months and monitored nearly 64,000 loads of debris and over 25,000 leaner and hanger removals. In total, Tetra Tech monitored over 4,000,000 CY of debris.

In January 2016, Collier County was forced to manage debris after a straight-line windstorm left a swath of damaged and downed trees across the County. The County tasked Tetra Tech with the rapid ramp-up to monitor disposal of debris from the impacted areas. Tetra Tech worked for the County for a three-week period and monitored and documented the contractor's removal of over 44,000 cubic yards of vegetative debris during this brief timeframe. Tetra Tech used *RecoveryTrac™ ADMS* to document quantities of debris and provided ADMS units to County code-enforcement staff to assist with damage assessments. Tetra Tech provided daily reports to the County project leadership, and the County was especially appreciative of the timely and accurate information that allowed them to make quick decisions and ultimately conduct an efficient and effective clean-up for Collier County residents.

In the spring of 2006, nearly six months after Hurricane Wilma struck Collier County, Florida, damage assessments revealed that waterways throughout the County contained storm generated hazardous debris, which caused

CLIENT

Collier County

LOCATION

Florida

DURATION

Ian: September 2022 – Present

Irma: September 2017 – December 2018

PROJECT SIZE

Ian: 1,400,000 CYs

Irma ROW: 4,004,300 CYs

COST

Ian: \$3,144,234

3.REFERENCE

Christopher Johnson

Interim Director – Corporate Financial and Management Services

3299 Tamiami Trail East, Suite 201
Naples, FL 34112

Phone: 239-252-5812 Cell: 239-821-7261

Kari Hodgson

Director Solid and Hazardous Waste Management Division

3339 Tamiami Trail East, Suite 302
Naples, FL 34112

Phone: 239-398-9621

Kari.Hodgson@colliercountyfl.gov

impediments and obstructions to the natural flow of watershed drainage. Collier County determined that an estimated 47 miles of waterways and canals were affected and required debris removal. Under contract with Collier County and the regulatory direction of the NRCS, our team successfully managed the environmentally sensitive debris removal operation while providing daily progress reports that included debris concentration maps, debris removal tracking maps that included GPS coordinates, before and after photographs, and debris quantity tracking spreadsheets. Another important function of the monitoring services provided by our team under this engagement was the enforced observance of special considerations set forth by the contract. Special considerations included the preservation of the embankments, the protection of endangered species (mangroves), and the restoration of the natural flow of water.

Since Tetra Tech's work for Collier County after Hurricane Wilma, our team has maintained a true partnership with the County in helping prepare for the next potential event. The County holds an annual War Games to prepare County and municipality staff as well as other agency and private sector partners for what to expect and what actions to take following a hurricane or other disaster event. Tetra Tech has been an active participant in this annual event for years and has helped lead the training for all participants. Tetra Tech also recently completed an update of Collier County's Disaster Debris Management Plan.

Additional Project - Richland County, South Carolina | Disaster Recovery Grant Management Consulting Services

Tetra Tech was selected by Richland County under an emergency contract to provide comprehensive disaster recovery services in response to the 1,000 year flood disaster of October 1-5, 2015, which caused extensive damage throughout Richland County and surrounding communities.

Tetra Tech assisted the County immediately after the flood to perform a comprehensive needs assessment of the County followed by a strategic analysis of available grant funds to support the County's recovery efforts. A direct allocation of \$23.5 million in HUD CDBG-DR grant funds was subsequently awarded to the County, followed up a year later with supplemental grant funds of an additional \$7.25 million in HUD CDBG-DR grant funds. Tetra Tech assisted the County with preparation of an Action Plan that was approved by HUD in 5 working days. Tetra Tech is now providing comprehensive grant implementation services including outreach, case management, and management of permanent home repairs, mobile home replacements, and economic development projects.

The full list of services provided by Tetra Tech to the County included the following:

- 1. FEMA HMGP Grant Application Services:** Developed the County's HMGP full-applications to the State and to FEMA.
- 2. FEMA HMGP Grant Implementation Services:** Implemented the County's HMGP Programs, including all aspects of grant and property owner management, as well as demolition monitoring, HMGP grant compliance, and closeout.
- 3. FEMA Public Assistance (PA) Reimbursement Support:** Assisted the County, City of Forest Acres, and County School Districts in preparation of their documentation for FEMA reimbursement.
- 4. Preparation of Road Repair Procurement Packages:** Assisted the County's Department of Public Works prepare quantities and cost estimates to repair over 270 roads and bridges Countywide.
- 5. Management of Countywide Well Testing and Disinfection Program:** Provided overarching management of a comprehensive well testing and disinfection program.
- 6. Performance of Outstanding Need Assessment:** Completed a needs assessment study to identify any outstanding post-disaster unmet needs of the citizens of Richland County.
- 7. Long Term Recovery Funding and Strategy Development:** Assisted the County in identifying long term disaster funding sources to fund the County's recovery efforts and developed a strategy to help maximize the amount of funds the County could realize through a comprehensive recovery strategic plan.
- 8. County Council Long Term Recovery Workshop Facilitation:** Worked with the County to facilitate a County Council workshop to brief the Council on the status of the recovery effort and long term recovery path forward.
- 9. Consulting Services to the County Recovery Manager:** Provided the County a full-time staff member to act as the Assistant Local Disaster Recovery Manager. His role was to advise and mentor the County Recovery Manager, to help the region's VOADS establish a Long Term Recovery Group, and to assist in coordinating all County recovery efforts with other local and State jurisdictions and agencies.



Key Project Statistics

- FEMA HMGP 404 Grant Application and Implementation Services (**11 applications - \$14.7 million grant**)
- FEMA PA Reimbursement Services (**\$4 million grant**)
- HUD CDBG-DR Action Plan Development (**\$30.75 million grant**)
- HUD CDBG-DR Implementation and Staff Augmentation Services
- Long Term Recovery Planning and Workshop Facilitation

10. Community Development Block Grant – Disaster Recovery Services: Assisted the County in winning a direct CDBG-DR allocation from HUD and then facilitated the process for the County to develop the implementation plan and action plan for their CDBG-DR program. Tetra Tech subsequently helped the County submit substantial and minor amendments to the action plan for their CDBG-DR program.

11. Community Development Block Grant – Disaster Recovery Implementation: Provided services to oversee and manage the implementation of the CDBG-DR action plan to include single family home repairs, mobile home replacements, small rental rehabilitation, public infrastructure project support, and HMGP buyout local match for residential and non-residential buyouts of 79 properties.

These services included extensive support to Housing, Infrastructure and Economic Development Programs. Tetra Tech staff members worked full-time at the County to implement the CDBG-DR case management and construction oversight as well CDBG-DR program management. Case managers worked directly with residents of the County to compile their applications for the housing programs. Tetra Tech cost estimators/inspectors completed all Housing Program scope of repairs and cost estimates using Xactimate software. Throughout the rehabilitation of the homes, cost estimators/inspectors provided construction supervision and all necessary inspections for both HUD and local building code compliance.

12. COVID-19 Consulting Services: Assisted with disaster recovery services related to COVID-19, including chairing the Richland County's COVID Small Business Grant Fund Selection Committee, assisting with applying for CARES Act Funding, and facilitating the development of the COVID-19 Interim Recovery Plan. Tetra Tech also assisted with the establishment and operation of a non-congregate shelter; Public Assistance data collection and project worksheet development; and with applying for other possible funding sources.

6. Conclusion

Tetra Tech is an industry expert in federal grant program documentation. This is our specialty, and we have provided this service to our clients on a myriad of federal programs over the last 20 years. We scour program guidance to create a program documentation process that is implemented at the onset of the program. Quality assurance and quality control against program documentation requirements is our standard. We reach out to our network of federal partners to stay ahead of program changes and confirm language of the policy guides.

Throughout the course of the hundreds of grant management projects that our staff have administered for state and local governments across the U.S., our team has developed a deep understanding of local, state, and Federal policies and procedures.

We commit to maintaining compliance with the applicable requirements in project operations and serving as a coach to the City to design and deliver compliant programs.

1	We are experts in federal grant policy.	Tetra Tech has Federal Policy Groups composed of subject matter experts focused on reviewing and analyzing federal funding passed to state, tribal and local governments through new and existing programs for economic, whole community recovery. New information is frequently being released by the federal government in the way of additional funding, guidance documents, and Frequently Asked Questions (FAQ), and our team is immediately primed to analyze and report on impacts to our clients' programs.
2	We know Florida.	Our team maintains strong relationships with many of the lead federal officers, state executive agency leadership, and staff across Florida's municipalities and at the state level with FDEM. With these relationships, many of the critical decisions and key issues can be addressed at the highest level. Our team also understands the duties and responsibilities of emergency management personnel at the state and local level, which helps us build strong relationships.

3	Trusted Compliance Advisor.	<p>The Tetra Tech team's primary mission is to aid the City with eligibility, administration, and compliance issues surrounding federal funding allocations. As grant programs and City needs evolve and new program requirements and guidance are released, we serve as a trusted advisor to modify programmatic SOPs and other procedures to mitigate risk of noncompliance.</p>
4	Our oversight framework aligns with program requirements.	<p>Tetra Tech will work with City stakeholders to establish an Implementation Plan along with SOPs for critical program elements, including financial procedures and compliance. We have combed the FEMA, HUD, NRCS, and FDEM guidance to develop template SOPs that can be updated and implemented for the City's range of projects. We can quickly customize our templates to meet the City's task order needs and meet federal documentation and compliance requirements.</p>
5	We maintain audit-ready files.	<p>We know federal agencies routinely and randomly review our clients' programs. We maintain our documentation process so that files are audit-ready, and our procedures are tailored to facilitate review and generation of project submissions.</p>
6	Our team is committed throughout closeout.	<p>Tetra Tech's work does not end when project tasks are complete. Through the demobilization phase, Tetra Tech completes extensive documentation, producing and delivering required deliverables to support auditing. Audit support not only includes a detailed project report that summarizes the project and identifies opportunities for improvements on future engagements, but also includes continued availability of information systems to support closeout information requests.</p>

Dashboard Reporting

In order for effective reporting to be achieved, key information needed for decision-making must be extracted and summarized from the large volume of data that is collected through the use of project controls processes and tools. We achieve this through a combination of reporting formats, content, data visualization, and careful analysis of the data to result in sound conclusions and recommendations.

RecoveryTrac™ is a web-based application that provides the City with a real-time portal to the Tetra Tech team's project work. Tetra Tech will customize *RecoveryTrac*™ reports to meet the City's specific needs for both force account labor and contractor invoice records. Regulatory and auditing agencies can efficiently search and review electronic project files as required, and the *RecoveryTrac*™ system data is exportable and allows for importation into other applications such as the FEMA GrantsPortal.

Because Tetra Tech has managed FEMA PA grant programs for clients across the country, we can anticipate the information the State and FEMA will request to review throughout the entire grant lifecycle. We have built these requirements into our SOPs and our automated system for tracking and controlling costs. We provide transparent, concise, accurate, and routine information to state and federal agencies in aggregate and disaggregate formats as requested and needed. Our proprietary software allows us to run reports in real time that show a summary of costs to present to FEMA. We can generate these reports in various formats depending on what information is being requested. Our professional and knowledgeable staff can facilitate a presentation of summaries and reports that will provide the State and FEMA the information they need to support the City.

Sample Progress Report Dashboard

CT DR-4500 Closeout Review Dashboard

Financial Summary Closeout Dashboard Closeout Tracking (Internal) TT Project List Non TT Projects

RecoveryTrac Project Management

680 Projects	\$907,693,989 Total Approximate Cost	\$600,948,925 Obligations to Date	287 Project Closeout Reviews In Progress	30 Closeout Reviews Complete	\$127,663,776 Completed Closeout Review Costs	
GP Project Number	TT Project (T/F)	Workflow Step	Project Size	Project Name	Sub-Recipient	Applicant Type
All	All	All	All	All	All	All

Project Closeout Review Complete 30 / 680

Closeout Costs Review Complete \$127.66M / \$907.69M

Workflow Steps

Workflow Step	Approximate Cost	Project Count
1) To be Assigned (TT)	\$48,783,074.35	393
2) Review in Progress (TT)	\$517,209,366.61	182
3) Applicant RFI Review in Progress (Applicant)	\$187,279,387.97	41
4) P.A. in Progress (Applicant)	\$22,588,039.56	12
5) Ready for Closeout by FEMA (State)	\$131,834,120.63	52
Total	\$907,693,989.12	680

Project Count by Size

Size Category	Project Count	Approximate Cost
Less than \$131,100	394	\$0M
\$131,100 - \$500K	91	\$587M
\$500K - \$1M	48	\$614M
\$1M - \$5M	75	\$620M
Greater than \$5M	38	\$629M
TBD	34	\$676M

Project Cost Review Forecast by Date

GP Project Number Sub-Recipient Closeout Workflow Step Target Review Completion Date Total Approximate Cost Obligation To Date

671389	ESF 7	Review in Progress (TT)	06/30/2023	\$76,184,104.76	
167480	ESF 7	Ready for Closeout by FEMA (State)	09/27/2023	\$61,376,306.85	\$61,376,306.85
333406	Connecticut Office of State Comptroller	Applicant RFI Review in Progress (Applicant)	12/26/2023	\$54,517,747.41	\$54,517,747.41
6711392	ESF 7	Review in Progress (TT)	06/30/2023	\$49,326,053.22	
661510	ESF 7	Ready for Closeout by FEMA (State)	09/27/2023	\$42,221,775.77	\$42,221,775.77
548507	Connecticut Office of State Comptroller	Applicant RFI Review in Progress (Applicant)	12/26/2023	\$29,085,642.05	\$29,085,642.05
187078	Connecticut Office of State Comptroller	Applicant RFI Review in Progress (Applicant)	12/26/2023	\$24,365,688.00	\$24,365,688.00
678541	Department of Corrections	Review in Progress (TT)	09/01/2023	\$21,000,000.00	
Total				\$907,693,989.12	\$600,948,924.56

Due to numerous material variables not under the control of Tetra Tech, we are unable to warrant that the data forecasted herein will proceed as projected. Therefore, Tetra Tech hereby expressly advises the viewer that this forecast should not be relied upon for business, financial, operational, or other decisions.

CRF Summary

Project Total: \$294,113,187.618

RecoveryTrac Project Management

Project Completion Status

Status	Amount	Percentage
Substantially Complete	\$40,957,216.35	14%
Closeout Ready	\$64,636,054.33	22%
Partially Complete	\$188,519,916.938	64%

Departments

Department	Project Amount
Prisons	\$88M
MDO	\$83M
Commerce	\$46M
Fire Department	\$28M
Public Health	\$23M
Treasurer	\$10M
Health & Human Services	\$9M
OIT	\$5M
First Judicial Co.	\$1M
OEM	\$0M
Parks	\$0M

Funding Allocation

Allocation Type	Amount	Percentage
CRF Allocation	\$276,406,952.60	94%
Additional COVID Expenses	\$17,706,235.02	6%

Activity

Activity Type	Amount
Substantial D...	\$160M
Small Business ...	\$47M
Rental Assistance	\$32M
General Recover...	\$18M
Social Distancing	\$9M
Sheltering	\$9M
PPE	\$9M
Medical Support	\$4M
Vaccinations	\$3M
Feeding	\$2M
Cleaning & Disinfecting	\$2M
Testing & Conta...	\$1M

06/15/2022

Leading with Science®

FEMA PA COVID Projects Financial Summary

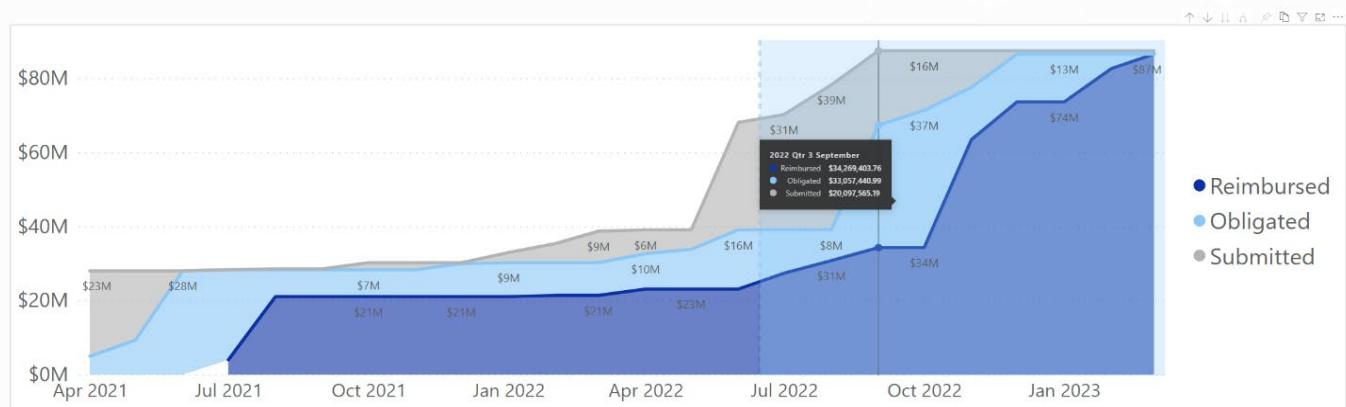


	Submitted	Obligations	Reimbursements
Actual To Date	\$35,732,101.56	\$35,732,101.56	\$23,077,706.91
Additional Forecasted	\$51,692,308.38	\$50,794,743.19	\$63,449,137.84
Total	\$87,424,409.94	\$86,526,844.75	\$86,526,844.75

Project Name

Department

4/1/2021 3/31/2023



06/15/2022

Leading with Science®

Weekly Reports

The Tetra Tech team will prepare and submit a written report in electronic format to the City. The report will include information related to the key performance indicators (KPIs) agreed to with the City Project Management Staff during the kickoff meeting including numbers of applications, number of awards, denials, status, and the number of projects monitored and closed out.

Weekly Status Meetings

Tetra Tech's program manager will meet each week with the City to review the weekly status report and discuss any issues, concerns, or problems.

Monthly and Quarterly Progress Reports

Tetra Tech tailors our data management tool so that the review and analysis of the data and preparation of tables and graphs is as automated as possible. This approach will provide consistency and accuracy to our reporting and give the City staff the opportunity to review the data and provide their insights to make the reports more meaningful from a project delivery viewpoint. In the development of our reports, the Tetra Tech team will apply proven principles, including:

- Focus on the core essentials of the program; avoid trying to discuss all aspects
- Maintain a future orientation; concentrate on where the program is going
- Be concise; limit the total number of pages
- Present information in graphs and tables as opposed to narrative
- Provide well-written and engaging narratives
- Employ standard milestones throughout for consistency in reporting
- Avoid unnecessary details; references can be provided for supporting documentation
- Issue the report in a timely manner
- Fully validate and cross-check all data

Annual Performance Reports

We understand that the purpose of the Annual Performance Report is to provide a concise and insightful summary of progress that is suitable for executive-level review and potentially wider dissemination. The format will be provided to the City for early review and comment.

Final Report

As the final deliverable provided by the Tetra Tech team, the Final Report will capture the lessons learned and serve as a final accounting of the performance in program delivery. The Tetra Tech team will begin the process of Final Report documentation before the end of the contract period to deliver a well-organized and insightful document that could serve as a roadmap for future successful projects. This approach is consistent with our “deliver with the end in mind” approach to program management.



The *RecoveryTrac™* grant management system was specifically designed for the management and maintenance of documents, data, and information related to grant administration and case management. The result is a networked and highly functional framework for collecting, managing, and leveraging the flood of incoming data to visualize project projection and recovery in real time using customized dashboard reporting.



Key Features

Information is a critical ally when supporting a major community to stabilize in the wake of a disaster. Funding agencies require highly granular data to support grant application and reimbursement. Tetra Tech has configured the *RecoveryTrac™* grant management system to organize and manage data and documentation associated with each grant program in mind.

Real Time Statistics

Audit-Ready Data

Exporting Capabilities



Efficiency

Regulatory agencies can quickly search and review electronic project data files.



Enhanced Reporting

Fully customizable data control facilitates custom reporting for all recipients.



Fully Transparent

Access to a real-time portal to review project analytics and progress as it happens.

Customizable dashboards are designed to expand with your needs. The *RecoveryTrac™* system provides aggregate data management and chain-of-custody tracking of changes. Dashboards are web-accessible with cloud storage, and flexible and expandable to encompass project and portfolio lifecycle tracking.

Geospatial project tracking powered by Microsoft PowerBI. Tetra Tech has leveraged emerging technologies and the use of proprietary geospatial GIS software into all phases of emergency management. This software tracks key data against program objectives and key performance indicators, building the highest level of transparency for grant expenditure.

Reference Information Form
RFQ # 23013
GRANT COMPLIANCE SERVICES

Organization: Volusia County, Florida

Contact Person: Arden Fontaine, Activity Project Manager

Address: 123 W Indiana Ave, Room 300

City: Deland State: Florida Zip: 32720

Phone Number: (386) 736-5965 Ext. 15621

Project Cost: \$496,805 Date Performed: September 2022 - Ongoing

Organization: City of South Daytona, Florida

Contact Person: Jason Oliva, Finance Director

Address: 1672 S. Ridgewood Avenue

City: South Daytona State: Florida Zip: 32119

Phone Number: (386) 322-3063

Project Cost: \$100,000 Date Performed: October 2022 - Ongoing

Organization: Collier County, Florida

Contact Person: Christopher Johnson, Interim Director – Corporate Financial and Management Services

Address: 3299 Tamiami Trail East, Suite 201

City: Naples State: Florida Zip: 34112

Phone Number: (386) 322-3063

Project Cost: \$3,144,234 Date Performed: September - Ongoing

Firm: Tetra Tech, Inc.

Representative: Jonathan Burgiel

Date: April 11, 2023



Section E: Other Information

Technical Approach

It is crucial that the City select a trusted partner with expertise and capacity to execute the requested services efficiently and cost effectively. The solutions detailed in this proposal are designed to leverage Tetra Tech's proven expertise in deployment, processes, service, and technology to deliver full-lifecycle support for disaster management that is focused on efficiency. We have been providing similar services since 2001, and **most recently deployed our response structure in response to September 2022's Hurricane Ian – staffing more than 1,400 surge staff in just 5 days.**

DEPLOYMENT	SERVICE
<p>Our team is prepared for rapid deployment at any scale. We have worked tirelessly to prepare a qualified and dedicated team for this critical project – and stand ready to rapidly mobilize in accordance with City requirements. Our goal is to support the City in its time of need with the right staff, at the right time, for the right amount of time.</p> <p>We will rapidly mobilize resources in each of the functional areas, across preparedness, response, recovery, and mitigation as needed throughout the contract term.</p>	<p>Our solutions are built on experiences from our current work with the City and other Florida communities to meet the City's needs efficiently and effectively. Tetra Tech's proven methodologies for assisting clients after large disasters integrate data-driven staffing ratios to reduce costs and expedite recovery programs by prioritizing compliance, advocacy, and customer service.</p> <p>This staffing philosophy is designed to ensure agile responsiveness to the City and its stakeholders.</p>
PROCESS	TECHNOLOGY
<p>Our grant program management methodology sets the standard for client service and subrecipient engagement across the disaster recovery and emergency management industry. Our approach is informed by direct experience with Pennsylvania agencies and federal grant policies, systems, and tools assisting clients after large disasters.</p> <p>We deliver high quality, audit-ready files to allow the City to not only quickly move funding but, more importantly, ensure the funding is retained.</p>	<p>Tailored technology solutions drive efficiency and accuracy throughout the project lifecycle. Our robust software suite tracks all phases of the grant cycle, including enrollment, data intake, approval, payment, and closeout. In fact, our technologies have been used to manage the recovery of every major disaster declaration in recent history.</p> <p>Tetra Tech's extensive technology will be used to intake, track, and organize documentation and materials throughout the program lifecycle.</p>

The focus of Tetra Tech's disaster recovery practice is to assist local communities improve housing and community development planning, streamline grants management, and create access to programs that provide support to their most vulnerable citizens. **At Tetra Tech, we do this by providing responsive, timely, cost-effective, and outcomes-driven technical assistance.** Our staff comprises skilled former senior administrators of federally funded grant programs, community development, homeless, and public housing programs; infrastructure program management; economic development specialists; environmental engineers; and government officials with years of direct experience working in nonprofit, local, state, and federally funded organizations. Our team has extensive knowledge managing and implementing these programs, giving the City access to **experts experienced in FEMA Category A, FEMA HMA, FHWA, United States Army Corps of Engineers (USACE), Natural Resources Conservation Service (USDA-NRCS), and HUD programs** and navigating their cross-cutting requirements.

Over the past 25 years, Tetra Tech has responded to many of our nation's most significant emergencies and disasters. Clients across the U.S. have relied upon Tetra Tech for our comprehensive services, significant staffing resources, and deep domain knowledge of state and federal disaster programs to respond to a wide variety of disaster incidents efficiently and effectively. From Hurricanes Katrina, Irma, and Michael to the complex wildfire that devastated Paradise California to the Zika virus that haunted much of the Southern U.S. – our team of emergency response professionals have been at the forefront of disaster response and recovery. **We provide services ranging from emergency operations center staff augmentation, field data collection and reporting, and comprehensive grant management oversight.**

We have supported clients at every scale to understand federal programs, define and refine targeted solutions, and foster effective program development and delivery. Combined with the experience presented throughout this SOQ, Tetra Tech is an industry leader in federal program administration, and one of the largest and most trusted disaster response and recovery contractor in the country.

Our Philosophy – Disaster Recovery Program Management

It's Not What You Get, It's What You Keep: At Tetra Tech, we understand that all federal funds come with strings attached. We are adept at developing strategies, action plans, policies, and processes to achieve program success and eliminate funding claw backs.

Efficiencies to Maximize Benefits: We will help the City receive maximum benefits from federal disaster programs while minimizing the out-of-pocket costs by implementing Standard Operating Procedures and Guidelines aligned with current U.S. Treasury policy/regulation.

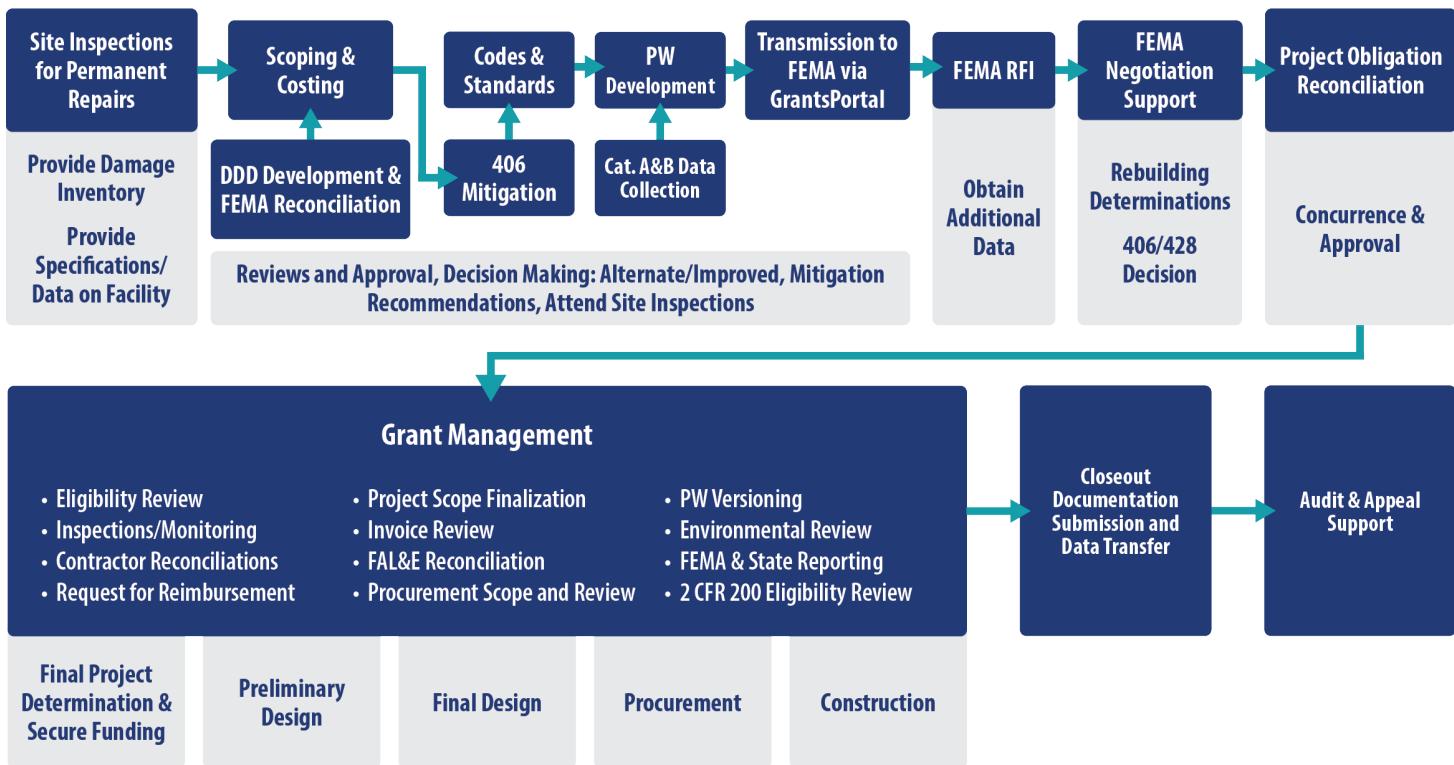
Bringing in the Right People at the Right Time: Every incident is different, so our team is scalable to meet the needs of the City. Our staffing and resource plan will be constantly evaluated and revised as the situation evolves from short-term recovery to long-term recovery and beyond.

Leading Recovery of the Whole Community: We have the technology systems, processes, and experience to represent the City in gathering and vetting project requests, if needed. Our experience has shown that strong applicant training and advocacy effort yields successful results. We will help the City make their municipal partners successful.

Retaining Funding Through Documentation and Audits: We have a proven track record of success in retaining funds and resolving disputes with funding agencies. Tetra Tech will provide guidance and assistance on internal controls and documentation requirements to ensure projects are fully supported and "audit-ready."

A. FEMA Public Assistance & Individual Assistance Advisory Services

Tetra Tech is prepared to assist the City with all components of the scope of work. The following section details our proposed start-up procedures, followed by a detailed technical approach. Our team has developed documentation processes to capture the data at each step along the way.



Provide extensive knowledge, experience, and technical competence.

The Tetra Tech Team's broad experiencing delivering the services described below for the State of Vermont, State of Connecticut, State of Missouri, State of South Dakota, State of Louisiana, State of Massachusetts, the Commonwealth of Puerto Rico, and over 100 local governments provide the City with a team that is skilled in each of the function service lines requested.

FEMA PA Project Work Plan

The following table provides a timeline to illustrate the timing of events identified in this proposal for a mobilization. The exhibit provides a chronological timeline listing the approximate start date and duration for each service area. The actual start date and duration would be agreed to by the City and Tetra Tech during the Task Order scoping meeting discussed above and memorialized in the Task Order.

Tetra Tech PA Project Timeline

Time	Tasks	Deliverables/Milestones
Annual Training and PA Updates		
Annual	Meet with the State to review PA Administrative Plan, provide annual refresher training course, and provide PA updates	<ul style="list-style-type: none"> • Conduct annual coordination meeting with the State • Obtain and coordinate management of critical documents and files, • Review and revise PA plans and procedures, as required • Provide PA legislative and regulatory updates
Pre-Event Activities (In cases of a no-notice event, the following pre-event tasks would be performed immediately post-disaster)		
H-96	Communication check/internal capabilities review	<ul style="list-style-type: none"> • Contact the City via phone to establish a point of communication • Initiate daily Tetra Tech Team conference call (Tetra Tech Team) • Determine potential staff resource requirements (Tetra Tech Team)
H-72	Execute responsibilities and activate contracts	<ul style="list-style-type: none"> • Review statewide procedures/guidance documents issues from the State • Continue daily Tetra Tech Team conference calls (Tetra Tech Team)
H-48	Monitor storm track and continue preparations	<ul style="list-style-type: none"> • Place Tetra Tech Account Manager & key PA staff on alert prepare to mobilize • Conduct regular meetings with the City • The City issues Task Order (TO) and notice-to- proceed to the Tetra Tech Account Manager and key Recovery staff, as needed (for no-notice event this would come after TO scoping meeting occurs) • Save critical documents and files to the network drive, USB drive, and laptop hard drive • If requested by the City, deploy Phase 1 staffing (Project Manager and other key Recovery staff to EOC) • Support incident action planning through the entirety of the response and recovery efforts
H-24 *	Mobilization	
H-0	Arrival/Impact of Disaster or Initiate Response to No-Notice Event	
Response and Recovery		
H +24	Mobilization	<ul style="list-style-type: none"> • Deploy Tetra Tech staff in accordance with the City TO requirements • Coordinate with the counties to support PDA and prepare to receive PDA data • Provide damage and debris model and estimates • Conduct Tetra Tech/ City project kickoff meeting • Begin development of PA Disaster-specific Work Plan • Participate in status review meetings
H +48	Damage assessments/operational plans	<ul style="list-style-type: none"> • Continue PDAs data collection and support • Develop cost estimate and other inputs required for presidential disaster declaration • Develop operational plan for disaster-specific issues • Receive approval for PA Work Plan
H + 1 Week	Stabilize response	<ul style="list-style-type: none"> • Develop training protocols • Plan and schedule applicant kickoff meetings • Begin weekly reporting to the SPAO
H + 2 Weeks	Implement programs	<ul style="list-style-type: none"> • PA Technical Support and Service section fully functional • Deliver PA training to City as requested

		<ul style="list-style-type: none"> Conduct applicant kickoff meetings Provide debris analysis
H + Multiple Weeks	Full project implementation	<ul style="list-style-type: none"> Provide PW support to City Test 20% sample of PWs and report results Review PWs for mitigation opportunities
Weekly	Project maintenance	<ul style="list-style-type: none"> Participate in weekly review meetings Provide the City with weekly status reports
When Needed	Support services	<ul style="list-style-type: none"> Provide the City with issue report within 24 hours of identifying a significant issue Provide City with program advocacy Deliver assessments on complex issues management and resolution Provide regulatory reviews Assist in appeals Conduct desk audit on completed PWs
Available Anytime	Support services	<ul style="list-style-type: none"> Project Report Dashboard Access to <i>RecoveryTrac</i>™
Project Completion	Document turnover/ closeout	<ul style="list-style-type: none"> Conduct final inspection on PWs Provide closeout package

Strategic Planning for Maximizing Reimbursements

Tetra Tech has assisted clients following catastrophic disasters such as Superstorm Sandy in New York and Hurricane Maria in Puerto Rico with developing and implementing comprehensive recovery strategies that meet the needs of the community while adhering to federal funding regulations. This strategy includes:

- Stakeholder Involvement:** Conducting outreach internally within the City and externally may include conducting community outreach on a variety of topics, including impacts from the disaster, the availability of recovery resources, potential funding programs, and application procedures.
- Adherence to Federal Grant Guidelines:** Providing Subject Matter Experts to provide technical assistance on the myriad rules that accompany federally funded disaster assistance, including FEMA PA, FEMA HMGP, HUD, Treasury CRF, Natural Resource Conservation Service (NRCS), Insurance, and FHWA.
- Analyzing Business Processes:** Incorporating recommendations to address issues such as staff turnover, changes in federal guidelines, and upgrades in technology that may improve the City's recovery.
- Focus on Program Implementation:** Supporting the City through staff augmentation to provide the needed management support that ensures that project data meets requirements for regulatory compliance, quality, format, documentation, and accessibility, and is aligned with anticipated audit criteria.

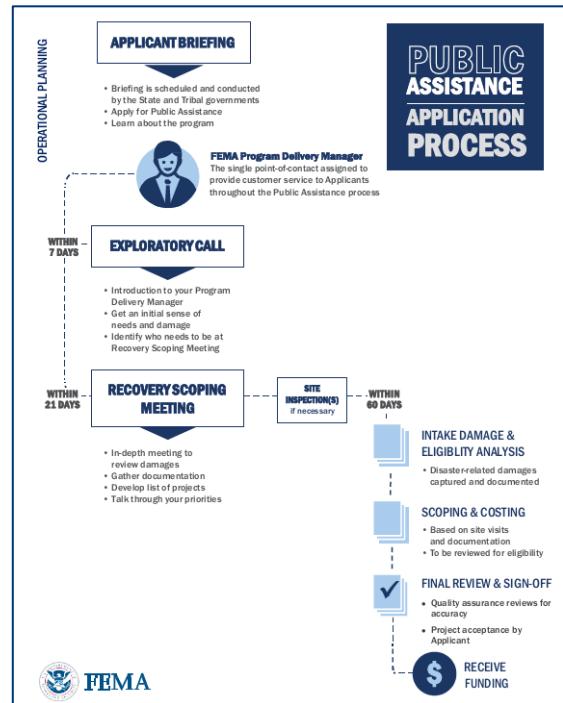
Integration in FEMA New Delivery Model

In 2017, FEMA introduced a new business model for PA Program delivery. For Hurricane Irma and disasters occurring after September 12, 2017, FEMA has been implementing its "New Program Delivery Model" to achieve a streamlined grant application process. FEMA's New Program Delivery Model is built around three basic elements:

- Staff:** Simplified roles and responsibilities of federal staff; introduction of Program Delivery Manager (PDMG), customer service focused role
- Technology:** Cloud-based customer relationship and program management software known as the PA Grants Manager and Grants Portal; and
- CRCs:** Centralized locations where subject matter experts are staffed to process grant applications across multiple disasters

Tetra Tech has adapted in response to FEMA's program delivery changes. We have realigned our staffing models, processes, and procedures to maximize the benefits of the streamlined program, while offering additional protection to our clients to minimize the negative impacts of the streamlined program. Our staff have been exhaustively trained on all facets of the new FEMA program delivery model, including fundamental published program guidance contained in the FEMA PAPPG and FEMA Recovery Policies, detailed Grants Manager and Grants Portal training, and the series of FEMA Independent Study Program Courses (IS-1000 through IS-1027) focused on the FEMA PA New Delivery Model.

Tetra Tech has also been following the evolution of the Disaster Reform Recovery Act (DRRA) since its infancy, and years before its October 2018 signing into law. We are intimately aware of both the anticipated and unanticipated impacts this powerful legislation brings to FEMA programs, and are seeing the impacts of key provisions, including revisions to Management Costs, the implementation of the three-year statute of limitation on deobligations, and the establishment of an arbitration process.



Tetra Tech also often maintains direct relationships and ongoing communication with CRC on behalf of our clients. We have found that these direct communications result in reduced review times and higher-quality PWs.

Identification of Alternative Sources of Funding

Tetra Tech has a long history working with subrecipients to identify alternative funding sources. We understand how federal funding sources can work in concert to reduce local financial impacts to the City, such as FHWA's Emergency Relief (ER) Program, NRCS Emergency Watershed Protection (EWP), HUD's CDBG-DR, CDBG-MIT or CDBG-CV programs, Treasury Coronavirus Relief Program (CRF) and State-level funding such as Senate Bill 7 – Local Cost Share assistance. For those projects that may require a local funding component, we will work with the Finance Department and departmental representative to identify and apply for this assistance, working this into cash flow projections and final cost calculations.

Evaluate and assist in the formulation, execution, and closeout of FEMA PA Emergency and Permanent Work PWs.

Tetra Tech is prepared to assist the City in all levels of PW development. Tetra Tech will assist in all phases of PW development including, but not limited to, the following phases of PW development and monitoring:

- Sites visits to damaged sites
- DDD development
- Cost Estimates
- Engineering reviews (if applicable)
- Environmental reviews
- Historic preservations reviews
- Insurance subrogation
- Negotiations with FEMA on project scope and costs
- Responding to FEMA RFIs
- Interim and final inspections
- Audit support
- Appeals support

Tetra Tech and our project team have significant experience supporting clients in performing cost analyses. With over 21,000 technical specialists and engineers and multiple offices throughout the region, Tetra Tech will support the City in any of its PW development and forensic needs.

Tetra Tech's PA SOPs reflect requirements of the formulating PWs within the GrantsPortal system and following FEMA's Streamlined Process for COVID-19 Disaster.

In the preparation phase of the PW (e.g., Project Formulation), Tetra Tech will identify the project category (A-G), determine if it is a large or small project, whether it is work to be completed or work completed, and ultimately draft the scope of work for the project.

Scope of Work: The scope of work will show a direct correlation between the cause of the damage and the repair. As an example, for a damaged facility or road the scope will include a description of damage, the type and function of the facility, and its condition prior to the disaster. A complete description of cause of the damage will be documented due to its importance when considering eligibility.

Work to Be Completed: Tetra Tech will review the scope of work to ensure it is not incomplete or inaccurate and whether it is completed or work to be completed. ***An incomplete or inaccurate scope of work could impede the funding process and result in a loss of funding in the post-disaster audit.*** The scope of work will accurately reflect the solution for the damage described in the damage description. Tetra Tech will also address special considerations, such as hazard mitigation, insurance, environmental, and historical issues that must be resolved prior to funding.

Supporting Documentation: The supported cost information for labor, materials, and equipment associated with the project will be documented where the project costs may be estimated by unit price, time and materials, or contracts in which labor, equipment, and materials are provided by an outside source.

If Tetra Tech determines there are questions, issues, or potential ineligible costs during the preparation of the PW, it will be noted and discussed with the City to minimize the delays that can be realized when a PW is disallowed or has multiple RFI from the State or FEMA staff.

Time Extensions: Based on the type of project, we will support the City with tracking requisite time extension requests for Categories A and B on a rolling 6-month basis along with Categories C through G following the first 18 months and subsequently on a rolling 6 month basis.

Versioning: Based on the scope of the specific PW, it may be necessary to version PWs within the GrantsPortal system based on additional information provided by the City. We are prepared to work with the Consolidated Resource Center (CRC) and PDMG to request and obtain versions for the PWs, as required. Our team has worked with clients to version hundreds of PWs following disasters.

Request for Reimbursement Support

To facilitate the request for reimbursement (RFR) process and reduce the reconciliation backlog, it is important for supporting documentation to be collected, maintained, and updated throughout the duration of the recovery process. We will constantly monitor grant applications, project progress, requests for reimbursement, and reimbursements received.

The Tetra Tech team has an extensive history of implementing, reconciling, and monitoring the RFR process internally and on behalf of our state and local clients spanning the FEMA PA Program. While many agencies and subrecipients still wait for reimbursement from previous disasters, our goal is to expedite economic recovery through strategies such as:

1. Work with departments to collect data necessary for RFR claim
2. Within 48 hours of final submission by client departments of documentation, execute a review and provide feedback on any outstanding items required
3. Issue RFR to the State within 24 hours of notification of submission of a complete data package from the City
4. Respond to RFIs from the State within 48 Hours
5. Develop and Issue Weekly RFR Report/Tracker

Tetra Tech will track all supported cost information for labor, materials, and equipment associated with the project and all documentation submitted where the project costs may be estimated by unit price, time and materials, or contracts in

Following Hurricanes Matthew, Harvey, and Irma disasters, the Tetra Tech Team was able to provide eligible costs and documentation to write the PWs using *RecoveryTrac™*, **resulting in identifying 25% more damage than FEMA.**

which labor, equipment, and materials are provided by an outside source. Tetra Tech will follow-up on any missing or inadequate cost information associated with the project to ensure all expenditures are submitted for reimbursement.

If Tetra Tech determines there are questions, issues, or potential ineligible costs during the submission of documentation, it will be noted and discussed with the City to minimize the delays that can be realized when a PW is disallowed or has multiple RFIs from the State or FEMA staff.

FEMA PA Project Closeout Support

The closeout of both small and large projects requires additional documentation by applicants. Tetra Tech will ensure that critical documentation, to include invoices, timesheets, and procurement documentation are collected in advance of closeout timelines. Once the decision is made to close out a project, our team will work with departments to capture final documentation required, to include any post-construction documentation and proofs of payment. Once all required documentation is captured, Tetra Tech will create the closeout request and submit to FEMA through the State of Florida's PA Grants Management Portal, floridapa.org.

Key Statistics

Our team has reconciled over \$12B in FEMA PA related documentation.

Our team has performed 100+ 2 CFR 200 contract eligibility reviews.

Our team knows the ins and outs of grant management, having worked for Grantees like Louisiana, Connecticut, Vermont, Puerto Rico, Massachusetts, Florida, and New York.

Overall Project Close-out

Tetra Tech will inform the City, FEMA, State, and other project participants of the Tetra Tech demobilization and prepare for the transition of project-related responsibilities to the City's designated point of contact (POC). We will implement the Program Closeout Plan, including the Program Transition Plan, Final Audit Plan, Agreement Closeout Plan, and Asset Transfer Plan. Additional activities within this phase include data transfer, exit briefings with subgrantee, acceptance meetings with the customer, and final communications.

Tetra Tech is prepared to conduct final inspection activities alongside the City. The purpose of the final inspection is to document that work was completed according to the PW scope of work and that all regulatory clearances have been satisfied. In addition to physically conducting the final inspections for projects, Tetra Tech will assist with writing closeout versions to large project PWs and any final project accounting.

Closeout packets will be created within the Tetra Tech team's *RecoveryTrac™* system. Once all documentation is collected, final inspection is complete, and approval to proceed with submittal to FEMA is granted by the State, Tetra Tech will extract all required documentation from our *RecoveryTrac™* system to generate closeout packets that fully and concisely present FEMA with all documentation required for grant closeout. The closeout packets will typically include the following:

- Listing and copies of PWs
- Closeout PW versions
- All associated invoices and receipts
- Force account labor and equipment records
- Project status report/proof of completion and scope of work
- Project inspection reports
- Complete GrantsPortal records detailing FEMA review and approval
- All associated project cost and funding documentation

B. FEMA 404 and 406 Hazard Mitigation Expertise

Tetra Tech maintains a best-in-class hazard mitigation team with expertise in maximizing the benefits of utilizing this program, including reducing future losses for residents and the federal government by identifying and producing hazard mitigation proposals that:

- Incorporate resiliency measures;
- Maximize the amount of hazard mitigation funding for the City;
- Utilize proven cost-effective mitigation measures (FEMA's Appendix J, 100% rule, and Benefit Cost Analysis tool);
- Ensure the most up-to-date federal and state environmental guidelines are followed
- Apply Wind and Flood Retrofit best practices (FBC, ASCE); and
- Ensure possible opportunities to incorporate hazard mitigation are maximized.

Tetra Tech is FEMA's Region VI, VII, and VIII Hazard Mitigation Technical Assistance Contractor for the suite of Hazard Mitigation Programs.

Assist in identifying, developing and evaluating opportunities for hazard mitigation projects to reduce or eliminate risk from future events (both Sections 404 and 406).

Hazard mitigation is an essential tool to break the cycle of damage due to disasters. Tetra Tech is a leader in assisting states and municipalities in hazard mitigation planning and program execution. As the recovery to a disaster begins or preparations are made prior to a future disaster, it is critical that all operations consider available hazard mitigation opportunities. The Tetra Tech team has the expertise and experience to coordinate the City's efforts to support the consideration of all mitigation options.

Tetra Tech provides the following services:

- Mitigation Program Administration
- Mitigation Planning and Hazard Assessment
- Section 404 and 406 Mitigation Integration
- Hazard Mitigation Assistance Program Application and Implementation (HMGP, FMA, and PDM)



Subrecipients participating in the FEMA PA Program can access Section 406 Mitigation funds during the development of PWs for damaged public facilities. The Section 406 program is designed to enhance the facility's ability to perform against future disasters, thus protecting it from repetitive loss. By maximizing Section 406 Mitigation opportunities, the City can reserve more finite funding sources such as HMGP or CDBG-DR to satisfy other unmet needs. Increasing the use of Section 406 Mitigation funds will also add to the total amount of PA funds, thereby increasing the HMGP funds made available to the State.

404 Hazard Mitigation Grant Program Support

At the City's request, the Tetra Tech team will assist with identifying future mitigation grant opportunities to supplement the disaster-related mitigation programs through FEMA's 404 Hazard Mitigation Grant Program or NFIP's Flood Mitigation Assistance (FMA) program. Tetra Tech is prepared to assist the City with HMGP or FMA services, including preparing applications, conducting outreach to potential property owners, developing application scopes, assessing cost-effectiveness (cost-benefit analysis), regulatory clearances, grant implementation, and audit and closeout services. Currently, Tetra Tech is assisting communities in South Carolina, Florida, and Texas, including the City of Houston with HMGP and FMA grants.

Did You Know?

Our team has successfully worked with the City of Houston on the Flood Mitigation Assistance (FMA) grant over the last two years alone to obtain \$38.9M in federal funding for Home Elevation grants. This unprecedented commitment by the City and the Tetra Tech team will contribute to over 100 homeowners in the floodplain to elevate their homes out of harm's way.

Additionally, over the past 4+ years we've assessed drainage issues associated with the City's drainage system and have reviewed hundreds of Capital Improvement Plan (CIP) projects for funding eligibility.

406 Hazard Mitigation Grant Program Support

With all permanent work PA projects, the Subrecipient has the option to request hazard mitigation measures as part of the project – termed a hazard mitigation proposal (HMP) – which can be funded up to an equivalent amount of 100% of the eligible repair or replacement costs. Where an HMP is 15% or less of the project cost, the HMP can be immediately approved by FEMA during project formulation. HMPs that are >15% but <100% that are from FEMA's pre-approved list of mitigation measures (aka Appendix J) are considered automatically cost-effective and approved during the project formulation process. For HMP >100% the Subrecipient must submit a BCA (minimum threshold ratio of 1:1) to FEMA for approval prior to starting the work.

Tetra Tech has unmatched depth in the areas of Benefit Cost Analysis (BCA) on 406 and 404 mitigation projects.

Our team is experienced in utilizing social and economic benefits to increase BCA ratios when handling some of the most complex projects.

428 Program Election Support

Section 428 projects are funded up to the fixed cost estimate for eligible repair, replacement, and mitigation work, and if actual costs are less than the fixed estimate, the Subrecipient may retain the excess funds for other approved uses. The Subrecipient may prepare and submit an estimate to FEMA for validation or may choose to allow FEMA to prepare the estimate. FEMA will validate each estimate for cost reasonableness, and if the estimate is within 10% of the local average weighted unit prices or industry standard construction cost data, will accept the Subrecipient's estimate.

Excess funds may be used for other approved or eligible work but cannot be used to offset the 10% local cost share. The Subrecipient, FEMA, and the State have 12 months from declaration to reach agreement on the fixed cost estimate. Project formulation (DDD, eligible SOW, HMP approval) follows the same policies as Section 406 project development, and projects may be consolidated during formulation to allow maximum flexibility in developing the SOW. The governing grant document is a Fixed Cost Estimate Subaward Agreement Letter. Individual project estimates greater than \$5 million will be reviewed by a FEMA expert panel.

HMGP Grant Monitoring

The lifecycle of a project from grant award through closeout requires clear communication with the State and FEMA. Often there is a change in project scope requiring a change request or an extension of the project period of performance which must be submitted with appropriate supporting documentation to the State and FEMA for approval. For some changes there are procurement requirements that must be followed to avoid a de-obligation of funds. Additionally, if FEMA denies a request or determines some work was ineligible, the action may trigger an appeal process. Finally, there are various quarterly reporting requirements and regular documentation management that must occur to keep the project on track.

Tetra Tech will provide grant monitoring services, which includes:

- Project administration
- Construction inspection (as requested)
- Time extension requests
- Quarterly reporting
- Issues resolution
- Project amendments
- Payment processing

Additionally, as updates and adjustments to HMGP policies are made, such as the Hazard Mitigation Grant Program Management Costs (Interim) Policy and the replacement of the Pre-Disaster Mitigation program with the BRIC program, Tetra Tech will develop info sheets and conduct briefings with City staff to highlight and crosswalk policy changes and implications for new or ongoing HMGP projects. Furthermore, Tetra Tech's subject matter experts have decades of policy experience and have applied novel remedies, methods, and approaches to enable solution sets and common ground to develop between applicants, FEMA, and the State to resolve roadblocks and facilitate issue resolution and project progress.

Develop hazard mitigation proposals (HMPs), and if needed benefit-cost analysis (BCA), to protect damaged elements and facilities from future damage.

At the City's request, the Tetra Tech team will assist with identifying future mitigation grant opportunities to supplement the disaster-related mitigation programs through FEMA's 404 HMGP program. Tetra Tech is prepared to assist the City with HMGP services, including preparing applications, conducting outreach to potential property owners, developing application scopes, assessing cost-effectiveness (cost-benefit analysis), regulatory clearances, grant implementation, and audit and closeout services. Currently, Tetra Tech is assisting communities in California, Idaho, North Carolina, New Jersey, Ohio, Oregon, South Carolina, Florida, and Texas, including the City of Houston with HMGP and FMA grants.

Tetra Tech will utilize state-of-the-art strategies in conjunction with the FEMA BCA Toolkit (currently version 6.0) to maximize the benefit cost ratio by incorporating both quantifiable and additional costs and benefits to demonstrate economic feasibility of projects. Tetra Tech's in-depth knowledge of the FEMA BCA has come from conducting hundreds of BCAs across hazard and project types. Tetra Tech BCA analysts are adept at finding creative solutions and leveraging our risk assessment knowledge to pioneer many of the interfaces between the BCA Toolkit and other hazard packages such as the FEMA HAZUS-MH model.

The Tetra Tech team has in-depth knowledge and extensive experience in calculating benefit cost analysis (BCA) ratios—resulting in a high rate of grant funding for our clients. Tetra Tech has extensive experience evaluating proposed projects to validate cost effectiveness for federal and state grant programs. This knowledge has resulted in millions of grant dollars awarded to our clients for project implementation. We take a hands-on approach to work with sub-recipients to leverage our expertise while gathering the supporting hazard, cost, and mitigation factors need for the BCA Toolkit. These data points will be utilized in the BCA tool for each of the hazard types in the tool and in building specific hazard models when necessary. Our Team will analyze and identify the most advantageous damage and frequency relationship between modeled, historical, or professional expected damages to continue to maximize the benefit cost ratio. This methodology has proven to provide a robust benefit-cost analysis utilizing an expanded cost-benefit methodology to ensure project eligibility and provide additional benefits to cover and unforeseen costs during project implementation.

Prepare hazard mitigation proposals, grant applications, benefit cost analysis, and other services related to Hazard Mitigation Grant Program, Pre-Disaster Mitigation, and other mitigation programs.

The lifecycle of a project from grant award through closeout requires clear communication with the City, State, and FEMA. Often there is a change in project scope requiring a change request or an extension of the project period of performance which must be submitted with appropriate supporting documentation to the State and FEMA for approval. For some changes there are procurement requirements that must be followed to avoid a de-obligation of funds. Additionally, if FEMA denies a request or determines some work was ineligible, the action may trigger an appeal process. Finally, there are various quarterly reporting requirements and regular documentation management that must occur to keep the project on track.

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- Closeout reporting

Additionally, as updates and adjustments to HMGP policies are made, such as the Hazard Mitigation Grant Program Management Costs (Interim) Policy and the replacement of the Pre-Disaster Mitigation program with the BRIC program, Tetra Tech will develop info sheets and conduct briefings with City staff to highlight and crosswalk policy changes and implications for new or ongoing HMGP projects. Furthermore, Tetra Tech's subject matter experts have decades of policy experience and have applied novel remedies, methods, and approaches to enable solution sets and common ground to develop between the City, FEMA, and the State to resolve roadblocks and facilitate issue resolution and project progress.

Tetra Tech is prepared to assist the City with BCA reviews, feedback, training, and technical assistance that lead to complete BCAs in each sub-application. This includes, but is not limited to:

- FEMA GO
- Review and reconciliation of Emergency Purchase Orders (EPOS)
- Review and reconciliation of supporting cost documentation
- Procurement reviews
- GMS upload and tracking
- Cost estimates
- Engineering reviews (if applicable)
- Environmental and historical preservation reviews
- Insurance reviews and subrogation
- Codes and standards compliance
- Responding to FEMA RFIs
- Negotiations with FEMA on project scope and costs

Review of Contracts and Procurement

The Tetra Tech team utilizes a procurement checklist contained in Tetra Tech's Hazard Mitigation Program Standard Operating Procedures (HMGP SOPs) in the review process of procurements and contracts. The checklists contain requirements from the Uniform Administrative Requirements for Grants and Cooperative Agreements to State and Local Governments (44 CFR 13.36-FEMA's purchasing regulation) as well as requirements from local, state, and federal regulation including but not limited to 2 CFR 200.

Requests for Reimbursement

The Tetra Tech team has an extensive history of implementing, reconciling, and monitoring the RFR process internally and on behalf of our state and local clients spanning FEMA programs. While many agencies and Subrecipients still wait for reimbursement from previous disasters (such as Hurricane Irene in 2012, where it took 5 years for reimbursement for some communities), our goal is to expedite economic recovery through strategies such as:

- Work with departments to collect data necessary for RFR claim
- Issue RFR within 24 hours of notification of award/submission of data
- Respond to RFIs within 48 hours
- Develop and Issue Weekly RFR Report/Tracker

Tetra Tech will track supported cost information for labor, materials, and equipment associated with the project and documentation submitted where the project costs may be estimated by unit price, time and materials, or contracts in which labor, equipment, and materials are provided by an outside source. Tetra Tech will follow-up on any missing or inadequate cost information associated with the project to ensure expenditures are submitted for reimbursement.

If Tetra Tech determines there are questions, issues, or potential ineligible costs during the submission of documentation, it will be noted and discussed with the City to minimize the delays that can be realized when a cost or project scope element is disallowed or has multiple RFIs from FEMA staff.

Regulatory and auditing agencies can efficiently search and review electronic project files as required, and the *RecoveryTrac™* system data is exportable and allows for importation into other applications such as FEMA GO.

Additional Representative Experience

Tetra Tech has industry leading experience across the disaster lifecycle supporting clients at every level of government, and **maintains an entire division dedicated to federal grant management**. This team is supported by experts in federal grant compliance, with decades of experience developing and implementing best practices in federal grant administration.

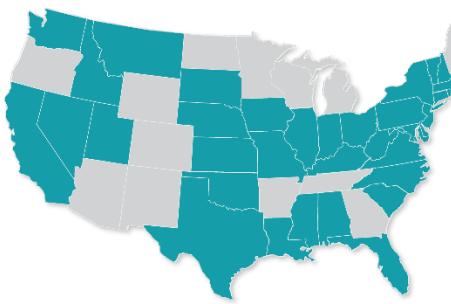
In addition to astute knowledge of federal grant requirements, Tetra Tech has also pioneered innovations in technologies and program management strategies to streamline grant administration and management for federally funded work, including dashboard reporting, real-time project data management, customized reports, and GIS mapping. Based on this experience, the Tetra Tech team is uniquely qualified to serve as a trusted advisor to governments at every level to analyze, advise, and support improvements in federal program delivery.

We have supported clients at every scale to understand federal programs, define and refine targeted solutions, and foster effective program development and delivery. Combined with the experience presented throughout this SOQ, Tetra Tech is an industry leader in federal program administration, and one of the largest federal contractors in the country.

Federal program experience at every level.



 **Federal**



 **State**



 **Local**

We understand federal programs because we regularly work with federal agencies. We are a direct contractor for:

- ✓ Federal Emergency Management Agency
- ✓ U.S. Army Corps of Engineers
- ✓ U.S. Environmental Protection Agency
- ✓ U.S. Agency for International Development
- ✓ U.S. Department of Defense
- ✓ Department of Homeland Security

17

State-Level Emergency Management Departments

Tetra Tech is the chosen partner for 17 state emergency management departments. We are familiar with **representing our clients as recipients of federal program funding** from multiple agencies, including FEMA, FHWA, HUD, EPA, SBA, and more.

500+

Municipal Partners

We are trusted by more than 500 communities around the country as a disaster preparedness, response, recovery, or mitigation consultant. For majority of these local-level clients, Tetra Tech provides **expert guidance to navigate the complexities of federal grant programs**.

5-Year Historical Purview

Client and Project	A. Preparedness	B. Response	C. Recovery	D. Mitigation	PA	IA	PW Development	PW Audit	Documentation Review	Eligible Cost Reconciliation	Audit Checklists	Appeal and Closeout
Broome County, New York Master Service Agreement	◆	◆	◆	◆	◆		◆		◆			
Morris County, New Jersey Master Service Agreement	◆	◆	◆	◆	◆		◆		◆			
Arlington County, Virginia Master Service Agreement	◆	◆	◆	◆	◆		◆		◆	◆		
NYU Langone Health Enterprise Master Service Agreement	◆	◆		◆								
Texas Division of Emergency Management Grant Compliance Monitoring Services for Statewide FEMA PA and Hazard Mitigation Funding			◆	◆	◆		◆	◆	◆	◆	◆	◆
Massachusetts Emergency Management Disaster Recovery Services			◆				◆	◆	◆	◆	◆	◆
North Carolina Emergency Management Individual Assistance/Public Assistance Personnel Contract			◆		◆	◆	◆	◆	◆	◆	◆	◆
Vermont Emergency Management Accounting Services FEMA Closeout			◆		◆		◆	◆	◆	◆	◆	◆
Philadelphia Office of Emergency Management, PA Exercise Series (Mass Casualty & Mass Decon),	◆	◆							◆			
Community Foundation of Western Kentucky December 2021 Tornados DCM and LTRG Support			◆			◆			◆			◆
E.R. Assist JUMPSTART December 2021 Tornados	◆		◆			◆			◆			◆
NJVOAD JUMPSTART Hurricane Ida	◆		◆			◆						◆
B.R.A.C.E DCM Training and Mentoring Program			◆			◆						
FEMA/Volunteer Florida DCMP in Bay County, FL for Hurricane Michael			◆			◆			◆			◆
FEMA/Volunteer Florida DCMP in Miami-Dade and Monroe Counties, FL for Hurricane Irma			◆			◆			◆			◆

Client and Project	A. Preparedness	B. Response	C. Recovery	D. Mitigation	PA	IA	PW Development	PW Audit	Documentation Review	Eligible Cost Reconciliation	Audit Checklists	Appeal and Closeout
Multiple Funders Ocean County Long Term Recovery Group Hurricane Sandy			◆	◆					◆			◆
American Red Cross and Robin Hood Foundation DCM and Unmet Needs Facilitation in New Jersey			◆	◆		◆			◆			◆
New Mexico USACE New Mexico Wildfires	◆	◆			◆				◆	◆		
Virginia Department of Transportation Winter Storms	◆	◆			◆				◆	◆		
City of Bowling Green, KY Severe Storms and Tornadoes	◆	◆			◆				◆	◆		
Warren County, KY Severe Storms and Tornadoes	◆	◆			◆				◆	◆		
CalRecycle (State Contract) Dixie Fire	◆	◆			◆				◆	◆		
Iowa, State of CV19 CCS Program			◆						◆	◆		
Lexington County, SC DR 4241 CDBG-MIT				◆			◆	◆	◆	◆	◆	◆
City of Philadelphia, PA Evacuation Plan	◆			◆					◆			
City of Philadelphia, PA DR 4618 PA	◆		◆		◆		◆	◆	◆	◆		◆
Richland County, SC CV19 ERAP			◆						◆	◆		◆
City of Central, LA Hurricane Ida	◆	◆			◆				◆			
Iberville Parish, LA Hurricane Ida	◆	◆			◆				◆			
Tangipahoa Parish, LA* Hurricane Ida	◆	◆			◆				◆			
Miami-Dade County, FL Surfside Condo Collapse	◆	◆			◆				◆			
Metro Nashville and Davidson County, TN Tennessee Severe Storms and Floods	◆		◆		◆				◆			
Calhoun County, AL Alabama Tornado	◆		◆		◆				◆			
Virginia Department of Transportation Winter Storms	◆		◆		◆		◆		◆	◆		
Texas, State of CV19 ERAP			◆						◆	◆		
Richland County, SC CV19 ERAP			◆						◆	◆		
Broward County, FL CV19 ERAP			◆						◆	◆		

Client and Project	A. Preparedness	B. Response	C. Recovery	D. Mitigation	PA	IA	PW Development	PW Audit	Documentation Review	Eligible Cost Reconciliation	Audit Checklists	Appeal and Closeout
Charleston County, SC CV19 ERAP			◆						◆	◆		
Pinellas County, FL CV19 ERAP			◆						◆	◆		
St. Petersburg, FL CV19 ERAP			◆						◆	◆		
Leon County, FL CV19 ERAP			◆						◆	◆		
Mobile County, AL CV19 ERAP			◆						◆	◆		
Winston-Salem/Forsyth City, NC CV19 ERAP			◆						◆	◆		
Greenville County, SC CV19 ERAP			◆						◆	◆		
Orlando, FL CV19 ERAP			◆						◆	◆		
Lexington County, SC DR 4241 CDBG-MIT			◆	◆				◆	◆	◆		
Monroe County, FL DR4337 CDBG-DR			◆					◆	◆	◆		
Walton County, FL CV19 COVID PA			◆		◆			◆	◆	◆		
Frisco, TX DR 4586 FEMA PA			◆		◆			◆	◆	◆		
Frisco, TX CV19 FEMA PA			◆		◆			◆	◆	◆		
Frisco, TX CV19 CRF			◆					◆	◆	◆		
New York City, NY Housing Authority Comprehensive Emergency Management Plan	◆	◆							◆			
Harris County, TX Unified and Uniform Approach to Preparedness, Response, and Recovery	◆	◆	◆						◆			
Delaware Emergency Management Agency All-Hazards Exercise Program	◆	◆	◆	◆					◆			
FEMA National Exercise Division National Series/National Level Exercises	◆	◆	◆	◆					◆			
Harris County, TX DR 4586 PA			◆		◆			◆	◆	◆		
Philadelphia, PA DR 4618 PA			◆		◆			◆	◆	◆		
Ft. Myers, FL DR4486 PA,CRF			◆		◆			◆	◆	◆		◆
CalRecycle Northern Branch* California Wildfire	◆	◆		◆					◆			
Audubon Society of LA Hurricane Zeta	◆	◆		◆					◆			
City of Diamondhead, MS Hurricane Zeta		◆	◆		◆				◆			

Client and Project	A. Preparedness	B. Response	C. Recovery	D. Mitigation	PA	IA	PW Development	PW Audit	Documentation Review	Eligible Cost Reconciliation	Audit Checklists	Appeal and Closeout
City of Gulfport, MS Hurricane Zeta	◆	◆	◆	◆					◆			
City of Waveland, MS Hurricane Zeta	◆	◆	◆	◆					◆			
City of Slidell, LA Hurricane Zeta	◆	◆	◆	◆					◆			
Dallas County, AL Hurricane Zeta	◆	◆	◆	◆					◆			
Hancock County, MS Hurricane Zeta	◆	◆	◆	◆					◆			
City of Youngsville, LA Hurricane Delta	◆	◆	◆	◆					◆			
St. Martin Parish, LA Hurricane Delta	◆	◆	◆	◆					◆			
Baldwin County, AL Hurricane Sally	◆	◆	◆	◆					◆			
City of Pensacola, FL Hurricane Sally	◆	◆	◆	◆					◆			
Okaloosa County, FL Hurricane Sally	◆	◆	◆	◆					◆			
Acadia Parish, LA Hurricane Laura	◆	◆	◆	◆					◆			
Calcasieu Parish, LA Hurricane Laura	◆	◆	◆	◆					◆			
City of Lake Charles, LA Hurricane Laura	◆	◆	◆	◆					◆			
City of Sulphur, LA Hurricane Laura	◆	◆	◆	◆					◆			
Jefferson Davis Parish, LA Hurricane Laura	◆	◆	◆	◆					◆			
Orange County, TX Hurricane Laura	◆	◆	◆	◆					◆			
Town of Holden Beach, NC Hurricane Isaias	◆	◆	◆	◆					◆			
Town of Ocean Isle Beach, NC Hurricane Isaias	◆	◆	◆	◆					◆			
Town of Oak Island, NC Hurricane Isaias	◆	◆	◆	◆					◆			
Hidalgo County, TX Hurricane Hanna	◆	◆	◆	◆					◆			
Barnwell County, SC South Carolina Severe Storms and Tornadoes	◆	◆	◆	◆					◆			
City of Chattanooga, TN Tennessee Severe Storms and Tornadoes	◆	◆	◆	◆					◆			

Client and Project	A. Preparedness	B. Response	C. Recovery	D. Mitigation	PA	IA	PW Development	PW Audit	Documentation Review	Eligible Cost Reconciliation	Audit Checklists	Appeal and Closeout
Hamilton County, TN Tennessee Severe Storms and Tornadoes	◆	◆		◆					◆			
Metro Nashville and Davidson County, TN Tennessee Severe Storms and Tornadoes	◆	◆		◆					◆			
Hamilton County, TN DR 4514, CV19 FEMA PA		◆		◆			◆	◆	◆	◆		
Commonwealth of Massachusetts DR4496 FEMA PA		◆		◆			◆	◆	◆	◆		
Harris County, TX DR 4855 FEMA PA		◆		◆			◆	◆	◆	◆		
Houston, TX DR 4855 FEMA PA		◆		◆			◆	◆	◆	◆		
Miami, FL DR 4337 Appeals		◆										◆
Houston, TX CV19 CRF		◆										
Philadelphia, PA CV19 CRF		◆										
Palm Beach County, FL CV19 CRF		◆										
Brevard County, FL CV19 CRF		◆										
U.S. Virgin Islands Housing DR 4335-VI, DR 4340-VI CDBG-MIT		◆	◆						◆			
LA GOHSEP Vernon-Parish DR 4559 PA	◆	◆		◆					◆			
LA GOHSEP Lafayette Delta DR 4570 PA	◆	◆		◆					◆			
LA GOHSEP Abbeville Laura DR 4559 PA	◆	◆		◆					◆			
LA GOHSEP Lafayette Laura DR 4559 PA	◆	◆		◆					◆			
LA GOHSEP Abbeville Delta DR 4570 PA	◆	◆		◆					◆			
Houston, TX DR 4586 PA	◆	◆		◆			◆	◆	◆	◆		◆
Long Beach, CA DR 4482 PA, CRF	◆		◆				◆	◆	◆	◆		
Iowa Department of Human Services DR 4482 CRF	◆						◆		◆	◆		
LA GOHSEP SAL DR 4570, DR 4559 PA	◆		◆				◆		◆			
LA GOHSEP COVID19 TO 8.2 DR 4484 PA	◆		◆						◆			
CR-Mass COVID-19 WO3/05 DR 4496 PA	◆		◆				◆	◆	◆	◆		
State of Connecticut DR 4500 PA	◆		◆				◆	◆	◆	◆		

Client and Project	A. Preparedness	B. Response	C. Recovery	D. Mitigation	PA	IA	PW Development	PW Audit	Documentation Review	Eligible Cost Reconciliation	Audit Checklists	Appeal and Closeout
Philadelphia, PA DR 4506 PA, CRF, HMGP			◆		◆		◆	◆	◆	◆		
Dunedin, FL DR4486 PA			◆		◆		◆	◆	◆	◆		
Harris County, TX DR 4485 PA, CRF			◆		◆		◆	◆	◆	◆		
Houston, TX CV19 CRF			◆				◆	◆				
Houston, TX DR4332 PA			◆		◆		◆	◆	◆	◆		
Jefferson County, TX Hurricane Dorian	◆	◆			◆				◆			
Colleton County, SC Hurricane Dorian	◆	◆			◆				◆			
Dorchester County, SC Hurricane Dorian	◆	◆			◆				◆			
City of Ruston, LA Louisiana Severe Storms and Tornadoes	◆	◆			◆				◆			
Lee County, AL Alabama Severe Storms and Tornadoes	◆	◆			◆				◆			
Harris County, TX DR 4332 CDBG	◆	◆	◆						◆	◆		
Missouri, State of DR 4451 PA	◆	◆			◆				◆	◆		
Missouri, State of DR 4435 PA	◆	◆			◆				◆	◆		
Commonwealth of Puerto Rico DR 4339 PA, HMGP					◆		◆	◆	◆	◆		
Barnwell County, SC DR 4479 HMGP				◆								
Lynn Haven, City of, FL Hurricane Michael	◆	◆			◆				◆			
Callaway, City of, FL Hurricane Michael	◆	◆			◆				◆			
Parker, City of, FL Hurricane Michael	◆	◆			◆				◆			
Wakulla County, FL Hurricane Michael	◆	◆			◆				◆			
Franklin County, FL Hurricane Michael	◆	◆			◆				◆			
Albany County, GA Hurricane Michael	◆	◆			◆				◆			
Dougherty County, GA Hurricane Michael	◆	◆			◆				◆			
New Bern, City of, NC Hurricane Florence	◆	◆			◆				◆			
Craven County, NC Hurricane Florence	◆	◆			◆				◆			

Client and Project	A. Preparedness	B. Response	C. Recovery	D. Mitigation	PA IA	PW Development	PW Audit	Documentation Review	Eligible Cost Reconciliation	Audit Checklists	Appeal and Closeout
Lenoir County, NC Hurricane Florence	◆	◆	◆	◆				◆			
Fayetteville, City of, NC Hurricane Florence	◆	◆	◆	◆				◆			
Brookfield, CT Connecticut Tornadoes	◆	◆	◆	◆				◆			

CERTIFICATE
TETRA TECH, INC.

To: City of Deltona, Florida

I hereby certify to you that I am a duly elected and qualified Senior Vice President, General Counsel and Secretary of Tetra Tech, Inc., a Delaware corporation (the "Company"), and that, as such, I am authorized to execute this Certificate on behalf of the Company. I further certify to you on behalf of the Company that:

Jonathan Burgiel, Business Unit President within the Company's United States Government Division of the Government Services Group, is authorized and empowered, in accordance with the Company's Signature Approval Authority Matrix, as approved by the Company's Board of Directors, for and on behalf of the Company, to sign a proposal in response to City of Deltona's RFQ# 23013 for Grant Compliance Services. Further, Mr. Burgiel is authorized and empowered to sign any resulting contract and is authorized to bind the Company.

IN WITNESS WHEREOF, I have hereunto set my hand as of this 7th day of April, 2023.



Preston Hopson
Senior Vice President, General Counsel and
Secretary



Insurance Requirement Form

Insurance Type	Required Limits
<input checked="" type="checkbox"/> Worker's Compensation	Statutory Limits of Florida Statutes, Chapter 440 and all Federal Government Statutory Limits
<input checked="" type="checkbox"/> Employer's Liability	\$1,000,000 each accident, single limit per occurrence
Commercial General Liability	\$1,000,000 single limit per occurrence \$3,000,000 aggregate for Bodily Injury Liability & Property Damage Liability.
<input checked="" type="checkbox"/> (Occurrence Form) patterned after the current ISO form	This shall include Premises and Operations; Independent Contractors; Products & Completed Operations & Contractual Liability.
<input checked="" type="checkbox"/> Indemnification	To the maximum extent permitted by Florida law, the Contractor/Vendor/Consultant shall indemnify and hold harmless City of Deltona, its officers and employees from any and all liabilities, damages, losses and costs, including, but not limited to, reasonable attorneys' fees and paralegals' fees, to the extent caused by the negligence, recklessness, or intentional wrongful conduct of the Contractor/Vendor/Consultant or anyone employed or utilized by the Contractor/Vendor/Consultant in the performance of the Agreement. This indemnification obligation shall not be construed to negate, abridge or reduce any other rights or remedies which otherwise may be available to an indemnified party or person described in this paragraph. This section does not pertain to any incident arising from the sole negligence of the City of Deltona.
<input checked="" type="checkbox"/> Automobile Liability	\$1,000,000 each person; Bodily Injury & Property Damage, Owned/Non-owned/Hired; Automobile Included.
<input type="checkbox"/> Other	

Vendor shall ensure that all subcontractors comply with the same insurance requirements that he/she is required to meet. The same Vendor shall provide the City with certificates of insurance meeting the required insurance provisions.

The City of Deltona must be named as "Additional Insured" on the Insurance Certificate for Commercial General Liability where required.

The Certificate Holder shall be named as City of Deltona.

Thirty (30) days cancellation notice required.

The undersigned firm agrees to obtain, prior to award, if selected, insurance as stated above.

Tetra Tech, Inc.

Proposer/Bidder



Authorized Signature

Business Unit President

Officer Title

April 10, 2023

Date

Scrutinized Company Certification

Florida Statutes, Sections 287.135 and 215.473

Pursuant to Section 287.135, Florida Statutes (2017), a company is ineligible to, and may not, bid on, submit a proposal for, or enter into or renew a contract with the City for goods or services of:

- a. Any amount if, at the time of bidding on, submitting a proposal for, or entering into or renewing such contract, the company is on the Scrutinized Companies that Boycott Israel List, created pursuant to s. 215.4725, or is engaged in a boycott of Israel; or
- b. One million dollars or more if, at the time of bidding on, submitting a proposal for, or entering into or renewing such contract, the company:
Is on the Scrutinized Companies with Activities in Sudan List or the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List, created pursuant to s. 215.473; or
Is engaged in business operations in Cuba or Syria.

Subject to limited exceptions provided in state law, the City will not contract for the provision of goods or services with any scrutinized company referred to above. The Contractor must submit this required certification form attesting that it is not a scrutinized company and is not engaging in prohibited business operations.

The following shall be grounds for termination of the contract at the option of the awarding body:

- a. The company is found to have submitted a false certification; been placed on the Scrutinized Companies with Activities in Sudan List or the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List;
- b. Been placed on the Scrutinized Companies that Boycott Israel List or
- c. Is engaged in a boycott of Israel; or
- d. Been engaged in business operations in Cuba or Syria.

The City shall provide notice, in writing, to the Contractor of any determination concerning a false certification.

- a. The Contractor shall have five (5) days from receipt of notice to refute the false certification allegation.
- b. If such false certification is discovered during the active contract term, the Contractor shall have ninety (90) days following receipt of the notice to respond in writing and demonstrate that the determination of false certification was made in error.
- c. If the Contractor does not demonstrate that the City's determination of false certification was made in error then the City shall have the right to terminate the contract and seek civil remedies pursuant to Section 287.135, Florida Statutes.

**THIS CERTIFICATION FORM MUST BE COMPLETED AND INCLUDED IN YOUR BID RESPONSE.
FAILURE TO SUBMIT THIS FORM AS INSTRUCTED SHALL RENDER YOUR BID SUBMITTAL NON-RESPONSIVE.**

- a. The Vendor, owners, or principals are aware of the requirements of Section 287.135, Florida Statutes; and
- b. The Vendor, owners, or principals are eligible to participate in this solicitation and not listed on the Scrutinized Companies that Boycott Israel List or engaged in a boycott of Israel; and
- c. For contracts of one million dollars or more, the Vendor, owners, or principals are eligible to participate in this solicitation and not listed on the Scrutinized Companies with Activities in Sudan List or the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List and, further, are not engaged in business operations in Cuba or Syria; and
- d. If awarded the Contract, the Vendor, owners, or principals will immediately notify the City in writing if any of its company, owners, or principals: are placed on the Scrutinized Companies that Boycott Israel List, the Scrutinized Companies with Activities in Sudan List, or the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List; engage in a boycott of Israel; or engage in business operations in Cuba or Syria.

Jonathan Burgiel
(Authorized Signature)

Jonathan Burgiel, Business Unit President
(Printed Name and Title)

Tetra Tech, Inc.
(Name of Vendor)

STATE OF FLORIDA

COUNTY OF ORANGE

The foregoing instrument was acknowledged before me by means of (X) physical presence or () online notarization, this

10th day of April, 2023 by

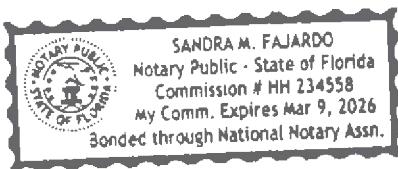
Jonathan Burgiel the Business Unit President of Tetra Tech, Inc., a Corporation
(X) who is personally known to me or () who produced
as identification.

Sandra Fajardo

Notary Public

Print Name: Sandra M Fajardo

My Commission Expires: 3/9/2026



Non-Collusion Affidavit of Prime Respondent

STATE OF FLORIDA

COUNTY OF ORANGE

Jonathan Burgiel, being duly sworn, deposes and says that:

(1) He/she is Business Unit President of Tetra Tech, Inc.
Title _____
Firm/Company _____

The respondent that has submitted the attached response.

(2) He/she is fully informed respecting the preparation and contents of the attached solicitation and of all pertinent circumstances respecting such solicitation.

(3) Such solicitation is genuine and is not a collusive or sham solicitation.

(4) Neither the said respondent nor any of its officers, partners, owners, agent representatives, employees or parties in interest including this affiant, has in any way, colluded, conspired, or agreed, directly or indirectly, with any other respondent, firm or person, to submit a collusive or sham response in connection with the Agreement for which the attached response has been submitted or to refrain from proposing in connection with such Agreement, or has in any manner, directly or indirectly, sought by Agreement or collusion or communication or conference with any other responder, firm or person to fix the price or prices in the attached solicitation or of any other respondent, or to fix any overhead, profit or cost element of the proposed price or the proposed price of any other responder, or to secure through any collusion, conspiracy, connivance or unlawful Agreement any advantage against the City of Deltona, Florida, or any person interested in the proposed Agreement.

(5) The price or prices quoted in the attached response are fair and proper and are not tainted by any collusion, conspiracy, or unlawful Agreement on the part of the proposer or any of its agents, representatives, owners, employees, or parties of interest, including affiant.

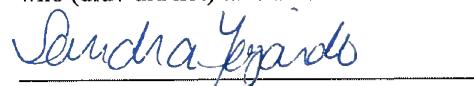


Signed _____
Title _____
Business Unit President

STATE OF FLORIDA COUNTY OF

VOLUSIA ORANGE

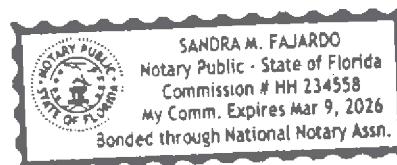
The foregoing instrument was acknowledged before me this April 10, 2023 by
Jonathan Burgiel,
who is (Business Unit President of Tetra Tech, Inc.),
personally known to me or (X) who has produced _____ as identification and
who (did / did not) take an oath.



(Signature of Notary Public)

Sandra M. Fajardo _____ (Name of Notary Typed, Printed or Stamped) Notary Public

HH 234558 _____ (Commission Number)



DRUG FREE WORKPLACE FORM

The undersigned proposer, in accordance with Florida Statute 287.087 hereby certifies that

Tetra Tech, Inc. does:

(Name of Business)

1. Publish a statement notifying employees that the unlawful manufacture, distribution, dispensing, possession or use of a controlled substance is prohibited in the workplace and specifying the actions that will be taken against employees for violations of such prohibition.
2. Inform employees about the dangers of drug abuse in the workplace, the business's policy of maintaining a drug-free workplace, any available drug counseling, rehabilitation, and employee assistance programs, and the penalties that may be imposed upon employees for drug abuse violations.
3. Give each employee engaged in providing the commodities or contractual services that are under contract a copy of the Drug-Free statement.
4. Notify the employees that as a condition of working on the commodities or contractual services that are under contract, employee will abide by the terms of the statement and will notify the employer of any conviction of, or plea of guilty or nolo contendere to, any violation of Chapter 893 or of any controlled substance law of the United States or any state, for a violation occurring in the workplace no later than five (5) days after such conviction.
5. Impose a sanction on, or require the satisfactory participation in a drug abuse assistance or rehabilitation program if such is available in the employee's community, by any employee who is so convicted.
6. Make a good faith effort to continue to maintain a drug-free workplace through implementation of this section.
7. As the person authorized to sign the statement, I certify that this business complies fully with the above requirements.



(Authorized Signature)

Jonathan Burgiel, Business Unit President

(Print/Type Name as Signed Above)

April 10, 2023

(Date)

CERTIFICATION OF NON-SEGREGATED FACILITIES FORM

By affixing his signature to this form, the consultant certifies that he does not maintain or provide for his employees any segregated facilities at any of his establishments, and that he does not permit his employees to perform their services at any location, under his control, where segregated facilities are maintained. The consultant certifies further that he will not maintain or provide for his employees any segregated facilities at any location under his control where segregated facilities are maintained. The consultant agrees that a breach of this certification will be a violation of the Equal Opportunity clause in any contract resulting from acceptance of this Bid. As used in this certification, the term "segregated facilities" means any waiting rooms, work areas, restrooms and washrooms, restaurants and other eating areas, time clocks, locker rooms and other storage and dressing areas, parking lots, drinking fountains, recreation or entertainment area, transportation and housing facilities provided for employees which are segregated by explicit directive, or are in fact segregated on the basis of race, color, religious disability or national origin, because of habit, local custom, or otherwise. The consultant agrees that (except where he has obtained identical certifications from proposed subcontractors for specific time periods) he will obtain identical certifications from proposed subcontractors prior to the award of subcontracts exceeding \$10,000 which are not exempt from the provisions of the Equal Opportunity clause, and that he will retain such certifications in his files.

The non-discriminatory guidelines as promulgated in Section 202, Executive Order 11246, and as amended by Executive Order 11375 and as amended, relative to Equal Opportunity for all persons and implementations of rules and regulations prescribed by the United States Secretary of Labor are incorporated herein.

NOTE: The penalty for making false statements in offers is prescribed in 18 U.S.C. 1001.

By:



Date: April 10, 2023

Jonathan Burgiel

Print Name

Business Unit President

Title

Official Address: 2301 Lucien Way, Suite 120, Maitland, FL 32751

State of Florida

Department of State

I certify from the records of this office that TETRA TECH, INC. is a Delaware corporation authorized to transact business in the State of Florida, qualified on April 28, 1988.

The document number of this corporation is P19034.

I further certify that said corporation has paid all fees due this office through December 31, 2022, that its most recent annual report/uniform business report was filed on January 3, 2022, and that its status is active.

I further certify that said corporation has not filed a Certificate of Withdrawal.

*Given under my hand and the
Great Seal of the State of Florida
at Tallahassee, the Capital, this
the Third day of February, 2022*




Laurel Lee
Secretary of State

Tracking Number: 4132609416CU

To authenticate this certificate, visit the following site, enter this number, and then follow the instructions displayed.

<https://services.sunbiz.org/Filings/CertificateOfStatus/CertificateAuthentication>



30+ YEARS OF EXPERIENCE

100+ PROJECTS

\$8B GRANT FUNDING

Areas of Expertise

Disaster Recovery Program Design and Management

Federal Grant Management

Solid and Hazardous Waste Management

Grant Experience

FEMA PA

CDBG-DR

HMGP

Disasters

4337 FL HURRICANE IRMA

4332 TX HURRICANE HARVEY

4286 SC HURRICANE MATTHEW

4344 CA WILDFIRES

4084 HURRICANE ISAAC

4029 TX WILDFIRES

4024 HURRICANE IRENE

4106 CT WINTER STORM

1791 HURRICANE IKE

1679 FL TORNADOS

1602 HURRICANE KATRINA

1539 HURRICANE CHARLEY

& SEVERAL MORE

Education

University of Central Florida, Master of Business Administration, 1989

Tufts University, Bachelor of Arts, Economics, 1984

Jonathan Burgiel

Business Unit President/Senior Management Team

EXPERIENCE SUMMARY

As President of Tetra Tech's Disaster Recovery Business Unit, Mr. Burgiel manages the business operations of all disaster recovery efforts, including preparedness planning, project staffing, logistics, grant administration and agency reimbursement support, program accounting/auditing oversight, and contract negotiations. Mr. Burgiel is dedicated to helping communities plan for and recover from disasters and provide the necessary documentation to receive the maximum allowable reimbursement from federal and state emergency management agencies.

Mr. Burgiel has 30+ years of solid waste and disaster recovery experience, including 20 years of experience working with Volusia County. His disaster-related work has included serving as principal in charge of over 100 projects, helping clients throughout the country prepare for, respond to, and recover from natural and human-caused disasters.

Mr. Burgiel is intimately familiar with local, state, and federal solid waste and hazardous waste regulations, as well as U.S. Department of Housing and Urban Development (HUD), Federal Emergency Management Agency (FEMA), and Federal Highway Administration (FHWA) policies and reimbursement procedures as they relate to disaster management and recovery.

FEATURED RELEVANT EXPERIENCE

Mr. Burgiel has provided senior management oversight to the following projects:

- 30 communities and over 1,500 staff in Florida – Hurricane Ian
- Rental and Mortgage Assistance - rental assistance to 120k homeowners across 5 states; and mortgage assistance in Florida and Maryland resulting from COVID pandemic
- Hurricane Maria debris mission supporting the Commonwealth of Puerto Rico Department of Transportation, comprehensive support including environmental; grant management; homeowner and infrastructure support w/HUD funding
- 67 communities and over 2,400 staff in Florida – Hurricane Irma
- 38 communities and over 1,400 staff in Texas – Hurricane Harvey
- CalRecycle/CalOES - State of California Camp Fire Response
- Multiple communities in South and North Carolina – Hurricane Matthew
- Richland County & Lexington County, South Carolina - South Carolina 1,000-year Flooding Event - Comprehensive Disaster Recovery Services
- Hays County/City of Wimberley, Texas – Severe Flooding Disaster Recovery Assistance
- New Jersey Department of Environmental Protection (NJDEP) – Hurricane Sandy Disaster Vessel Recovery Program
- State of Connecticut – Hurricane Sandy Disaster Debris Program
- State of Louisiana – Hurricane Isaac Disaster Debris Program Management
- City of New Orleans, Louisiana – Hurricane Katrina Residential Demolitions
- Bastrop County, Texas – Wildfires
- City of Cedar Rapids, Iowa – Severe Flooding

Principal in Charge (2018 - Present)

Camp Fire Response

Mr. Burgiel is responsible for oversight of debris and environmental work related to the hazardous material removal of over 12,000 parcels located in the County of Butte. This is possibly the largest debris operation in history.

Principal in Charge (2017)

Numerous Florida Jurisdictions | Hurricane Irma

Following Hurricane Irma in September of 2017, Mr. Burgiel oversaw debris monitoring operations for over 67 communities and 2,400 personnel across Florida. This included Miami Dade County, where at peak Tetra Tech had nearly 900 monitors working in the field. Documentation was created for almost 110,000 load tickets and over 78,000 unit rate tickets. In total, Tetra Tech monitored over 4,000,000 cubic yards of debris for the County.

Principal in Charge (October 2019 - Present)

St. Johns County, Florida | HUD CDBG-DR Housing Rehabilitation Program Management

Mr. Burgiel was engaged with the County immediately following contract execution to assist with managing the CDBG-DR funds for St. John's Housing Rehabilitation and Reconstruction Program. To support the long-term recovery and restoration of the impacted areas, Mr. Burgiel managed the grant allocated to the recovery activities for over 300 properties including repair and elevation; reconstruction of properties, repair/replacement of damaged manufactured homes or mobile home units (MHUs), relocation of homeowners, and mortgage payment assistance.

Principal in Charge (October 2018 – Present)

North Carolina Department of Public Safety | Hurricane Matthew HUD CDBG-DR Program Management

Serving as Principal-in-Charge for all environmental services for this \$400 million CDBG-DR program addressing 3,400 homes for rehabilitation. Tetra Tech will be performing an estimated 3,400 Tier 2 Reviews, 25 Tier 1 Reviews, 1,700 lead and asbestos risk assessments, and other required specialized environmental services (e.g., CESTs, EAs, etc.) as subcontractor to IEM Inc.

Principal in Charge (November 2018 – Present)

Florida Department of Economic Opportunity | HUD CDBG-DR Rehab/Reconstruction Program

Mr. Burgiel serves as program manager for Tetra Tech's performance of housing rehabilitation and reconstruction related environmental services associated with the State of Florida's \$615.9 million HUD CDBG-DR grant associated with Hurricane Irma.

- Overseeing Tetra Tech staff's development of approximately 6,000 Tier 2s.
- 3,000 lead risk assessments.
- Review of 8 Tier 1s, and other specialized environmental services (e.g., CESTs, EAs, etc.) as a subcontractor to IEM, Inc.

Principal-in-Charge (October 2015–Present)

Richland County South Carolina | Comprehensive Post-Disaster Flood Support Services

Following the State of South Carolina's 1,000-year flooding event that took place from October 1–5, 2015, Mr. Burgiel led a team of Tetra Tech staff to provide comprehensive disaster recovery services to Richland County immediately following the historic flooding event. Services included but were not limited to FEMA PA reimbursement support, procurement package development for over 270 road and bridge repairs, well testing and disinfection program management, a post-disaster outstanding needs assessment, flood mitigation planning support, grant funding strategic plan development, and coordination and technical support activities among the County, State and FEMA agencies.

Principal-in-Charge (October 2015–October 2016)

Lexington County, South Carolina | HUD CDBG-DR Residential Buyout Programs

Mr. Burgiel served as principal-in-charge of Lexington County's residential buyout programs funded by HUD CDBG-DR grant funds. As part of this effort, Tetra Tech is providing comprehensive housing buyout activity services including applicant outreach, buy-out packet preparation and demolition cost estimating, oversite of demolition contractor activities, payment recommendation and project close out on over 100 homes. The work involves management of over \$16 million of HUD CDBG-DR grants.

Principal-in-Charge (May 2015–October 2015)**Hays County/City of Wimberley Texas | Post-Disaster Flood Support Services**

Following the historic flooding event along the Blanco River where over 20 people perished, Mr. Burgiel provided technical support in the Hays County, Texas Emergency Operations Center (EOC) during and immediately following the flooding disaster. As part of these services, Mr. Burgiel supported the County and City of Wimberley in providing expert technical advice associated with providing the County/City appropriate measure for responding to the event and methods for best tracking the County's disaster-related costs to maximize the County's/City's FEMA reimbursement post-disaster. Mr. Burgiel was instrumental in standing up the County right-of-way debris removal program and subsequently obtaining approval for a private property debris removal (PPDR) program from FEMA to cover the extensive debris that remained along and in the Blanco River, which created a future health and safety hazard to the County and City.

Senior Management (September 2004–September 2009)**City of Orlando, Florida | Disaster Debris Program Management**

Mr. Burgiel served in a senior leadership role and assisted the City of Orlando with a range of storm recovery monitoring and management activities. Mr. Burgiel was responsible for managing a full support team involved with staging operations, load inspections for storm debris cleanup performed by contract haulers, scheduling, dispatching, and logistics operations for the field inspectors assigned to storm debris cleanup. Our team's assistance enabled the City of Orlando to promptly apply for and receive reimbursement for the total cleanup cost from state and federal emergency management agencies.

Senior Management (February - April 2007)**Volusia County, Florida | Groundhog Day Tornado Disaster Recovery and Storm Debris Removal**

Our team was retained by Volusia to assist with monitoring of cleanup efforts following the Groundhog Day tornadoes that swept through Central Florida during the early morning hours, leaving 20 people dead and many others injured and without homes. Under Mr. Burgiel's direction, our team mobilized a response team to the area to help identify critical debris removal areas and initiate its ROW debris removal operation. Mr. Burgiel oversaw the management of a full support team involved with staging operations, load inspections for storm debris cleanup, and logistics operations for the field inspectors.

Senior Management (August 2005 - October 2006)**Miami-Dade County, Florida | Hurricanes Katrina and Wilma Disaster Recovery and Debris Management**

After Hurricanes Katrina and Wilma struck Miami-Dade County, our team provided immediate on-site assistance and a wide range of disaster recovery management and storm debris cleanup monitoring services to help Miami-Dade County make a quick recovery. Under Mr. Burgiel's direction, our team assembled and deployed a full disaster recovery team to assist Miami-Dade County with removal of approximately 5.5 million cubic yards of debris. Mr. Burgiel oversaw the data management process and assisted Miami-Dade County with FEMA project worksheets and appeals.

Senior Management (August 2004-2005)**Lake County, Florida | Hurricanes Charley and Frances Disaster Recovery and Debris Management**

Following Hurricanes Charley and Frances, Mr. Burgiel helped Lake County perform a range of storm debris cleanup monitoring and management activities. He supervised staging operations, load inspections for storm debris cleanup performed by contract haulers, scheduling, dispatching, and logistics operations for the field inspectors assigned to storm debris cleanup.

Project Management (September – October 2001)**Sarasota County, Florida | Tropical Storm Gabrielle Disaster Debris Program Management**

As a result of Tropical Storm Gabrielle in 2001, Sarasota County required assistance with logistics, staging operations, and load inspections for storm debris cleanup performed by contract haulers. As project manager for the project, Mr. Burgiel assisted Sarasota County with scheduling, dispatching, and logistics operations for the field inspectors assigned for storm debris cleanup.



32+ YEARS OF EXPERIENCE

125M CYS OF DEBRIS

\$3B FEMA PA REIMBURSEMENT

Areas of Expertise

- Solid and Haz. Waste Management
- Disaster Debris Monitoring
- Solid Waste Routing and Efficiency
- Private Property Debris Removal
- Emergency Management
- Damage Assessment
- Utility Engineering/Consulting
- Cost of Service Evaluations
- Program Management
- Public Outreach/ Communications
- Procurement (2CFR)
- Environmental Permitting
- Grant Management

Disasters

- DR4673, Hurricane Ian
- DR4564FL, Hurricane Sally
- DR-4559LA, Hurricane Laura
- DR-4393NC, Hurricane Florence
- DR-4337FL, Hurricane Irma
- DR-4283FL, Hurricane Matthew
- DR-4241SC, Severe Flooding
- DR-4138FL, Severe Flooding
- DR-1971AL, Tornado Outbreak
- DR-4024VA, Hurricane Irene
- DR-1603LA, Hurricane Katrina
- BP Deepwater Horizon Oil Spill

Education

Florida State University
Bachelor of Science, Business
Marketing, 1991

Chuck McLendon

Senior Management Team

EXPERIENCE SUMMARY

Mr. McLendon is a Volusia County resident and has been providing consulting engineering services to federal, state, and local governments across the U.S. for more than 30 years. His background in solid and hazardous waste management has led him to become one of the leading experts in the country on the implementation of large-scale post-disaster debris removal programs. He has routinely assembled large teams to support major infrastructure and emergency response efforts. Career highlights include:

- Experienced Executive Program Manager with over 32 years of experience working with federal, state, and local government agencies on the finance, design, permitting, procurement, construction, and operations of major infrastructure projects.
- Served as Principal in Charge for upwards of 30 major disaster activations including projects totaling more than 125 million cubic yards of debris and upwards of \$3 billion in FEMA PA reimbursement.
- Major experience in the legal substantiation and implementation of complex debris removal programs including PPDR, waterways, beaches, selective salvage, etc.
- In depth knowledge of the FEMA Public Assistance program including a strong understanding of Federal Register 2 CFR Part 200 ("the Super Circular")

Mr. McLendon served as Principal in Charge for the City of Deltona following Hurricane Irma. During this activation, Tetra Tech monitored the removal of over 280,000 CYs of debris. He also recently assisted the City with debris removal monitoring for approximately 140,000 CYs of debris following Hurricane Ian.

RELEVANT EXPERIENCE

Hurricanes Ian and Nicole (2022)

Numerous Florida Jurisdictions

Following Hurricanes Ian and Nicole, Mr. McLendon served as regional program manager supporting over 15 Tetra Tech clients – including Orange County, Volusia County, Seminole County, and the Florida Park Service - in standing up and operating debris removal programs. Mr. McLendon served as a senior subject matter expert and assisted Tetra Tech's clients and project managers in maintaining FEMA-compliant programs and resolving various challenging issues.

Surfside Condominium Collapse (2021)

Miami-Dade County, Florida

The collapse of the twelve story Champlain Towers South condominium was a high-profile, catastrophic event. Mr. McLendon served as Principal in Charge for Tetra Tech to Miami-Dade County following the collapse on June 24, 2021. Mr.

McLendon was on the ground at the collapse site within hours of the building collapse and County activation in order to assess the resources needed to assist the County with emergency debris removal. Over the next several days, he assisted the County with contractor procurement efforts in addition to developing and executing a plan to monitor debris removal both from a FEMA reimbursement and evidentiary debris removal perspective.

Hurricane Sally (2020)

City of Pensacola, FL and Okaloosa County, FL

The City of Pensacola and Okaloosa County, FL have been long-standing clients of Mr. McLendon. Following the impact of Hurricane Sally, Mr. McLendon provided senior advisory services to include explanations of the FEMA Category A program as well as procurement assistance. Chuck has also provided senior level oversight to ensure that our response crews are meeting client expectations.

Hurricane Laura (2020)

Calcasieu Parish, LA

Mr. McLendon mobilized immediately to the Lake Charles, LA area in the aftermath of Category 4 Hurricane Laura. He facilitated the initial kick-off meeting with the Parish and debris contractor and developed an immediate staffing and logistics plan for the Parish. He worked closely with our on-site project manager and senior staff from the debris contractor to ensure that emergency roadway clearance (push) crews were dispatched with their work times and locations tracked. Mr. McLendon worked throughout the project with Tetra Tech project management staff to ensure that all of the parish's needs met.

Hurricane Florence (2018)

Boiling Spring Lakes, NC and Briarcliff Acres, SC

Following Hurricane Florence, Mr. McLendon provided disaster debris monitoring and FEMA grant management related services to the City of Boiling Spring Lakes, NC and the Town of Briarcliffe Acres, SC (through a contract with the Horry County Solid Waste Authority). Monitoring work including debris management site permitting, right of way collection, hazardous tree removal, and household hazardous waste collection.

Hurricane Irma (2017)

Numerous Central Florida Jurisdictions

Following Hurricane Irma in September of 2017, Mr. McLendon provided senior oversight of debris monitoring operations across seven counties – including Seminole, Lake, and Volusia counties in Central Florida. Chuck was responsible for assembling project management and support teams to include policy and field operations expertise. In total, he oversaw a team of over 1,000 personnel that accounted for nearly 6 million cubic yards of debris removal. This work included implementation and tracking of Private Property Debris Removal (PPDR) programs within each of the seven counties managed.

Severe Flooding (2017)

South Carolina Emergency Management Division

Mr. McLendon was retained by the SCEMD to serve as a Senior FEMA PA Policy Advisor in support of project worksheet formulation for the October 2015 flooding event that impacted much of central South Carolina. Mr. McLendon oversaw a team of Project Specialists in drafting and versioning project worksheets.

Hurricane Matthew (2016)

St. Johns and Flagler Counties, Florida

Mr. McLendon served as Principal in Charge for the debris monitoring mission in St. Johns County and Flagler County, Florida following Hurricane Matthew. Chuck oversaw the removal of more than 1.1 million cubic yards of debris from public

and private roads as well as debris removal efforts along nearly 27 miles of county-maintained beach. In addition to providing daily oversight of the debris removal mission, Mr. McLendon was regularly relied upon by County staff for policy guidance related to the County's overall recovery effort.

Severe Flooding (2015)

Clarendon County, South Carolina

Mr. McLendon provided on-site technical assistance to Clarendon County following a catastrophic flooding event in 2015. Chuck assisted the County with coordination and communications with the South Carolina National Guard in the repair of County-maintained roadways. Mr. McLendon also assisted with various procurements associated with temporary and permanent repairs while helping the County to develop a system to track materials used for roadway stabilization/repair.

Severe Flooding (2014)

Escambia County, Florida

Mr. McLendon served as the Recovery Program Manager for Escambia County, Florida following a 500-year flooding event that resulted in upwards of \$100 million in damages to Escambia County. Mr. McLendon assisted with the damage assessment documentation process, procured engineers and contractors for both temporary and permanent repairs, and helped the County Public Works Dept. with overall reimbursement efforts.

Hurricane Isaac (2012)

Jefferson Parish, Louisiana

Mr. McLendon served as Principal in Charge and Project Manager to Jefferson Parish following Hurricane Isaac in 2012. A very minor hit in comparison to Hurricane Katrina, the County still had very high expectations for a rapid debris removal program. Mr. McLendon organized a strong team that provided right of way debris removal as well as staffing at citizens convenience sites.

Deepwater Horizon Oil Spill (2010)

Escambia and Santa Rosa Counties, Florida

Mr. McLendon provided comprehensive field environmental and reimbursement services to Escambia and Santa Rosa Counties, Florida (located in the Florida Panhandle) following the Deepwater Horizon Oil Spill. Mr. McLendon led efforts to procure containment boom contractors as well the program management of daily containment boom operations. Mr. McLendon was also responsible for implementing a large-scale training program for County staff and volunteers on OSHA's Hazardous Waste Operations and Emergency Response Standard (HAZWOPER).

Hurricane Ike (2008)

Galveston County and City of Galveston, TX

Mr. McLendon oversaw the debris removal effort for Galveston County and the City of Galveston, Texas following Hurricane Ike in 2008. Upwards of 10 million cubic yards of debris was removed County-wide under Chuck's direction. Debris removal programs included right of way, private property debris removal (PPDR), commercial debris removal, dead animal carcasses, hazardous waste, and white goods.

Hurricanes Katrina and Gustav (2007-2009)

City of New Orleans, Louisiana

Mr. McLendon served as Principal in Charge for several recovery efforts for the City of New Orleans including the City's residential demolition program following Hurricane Katrina as well the overall response effort following Hurricane Gustav. Mr. McLendon assisted project management staff in the development of a complex legal and environmental process to allow for the demolition of flood-damaged structures to occur within the City and oversaw the demolition of some 2,000

residential structures. This work included a complex legal condemnation process, selective salvage of historically significant architectural items, environmental testing, utility disconnects, and environmental monitoring. Later, Mr. McLendon served as Principal in Charge for debris management efforts in the City following Hurricane Gustav.

Hurricane Ivan (2004)

Escambia County, City of Pensacola, and FDOT District 3, Florida (2004)

Hurricane Ivan devastated northwest Florida. Mr. McLendon served as Principal in Charge for recovery efforts to Escambia County, the City of Pensacola, and Florida DOT District 3. Mr. McLendon assisted the County in putting together the legal substantiation for the County to receive approval for a major private property debris removal program including both vegetative debris and sand removal from residential structures on the beach. Upwards of 8 million cubic yards of debris was removed from County and City right of ways, private property, and county beaches.

**14+** YEARS OF EXPERIENCE**77** DISASTERS**\$6B** GRANT FUNDING**Areas of Expertise**

Program Design / Implementation

Grant Administration

Business Planning

Project Budgeting & Accountability

Reimbursement Maximization

Process Engineering

State and Federal Regulations/Policies

Process Improvement

Resource Management

Grant Experience

FEMA PA AND FEMA HMGP

CDBG

CARES Act

Key Training/Certifications

Project Management Professional (PMP)

EducationLouisiana State University
Master of Public Administration, 2011

Louisiana Tech University Bachelor of Liberal Arts, Political Science/Pre-Law and English, 2006

Christina R. Hendrick, MPA, PMP

Senior Management Team/Program Manager

EXPERIENCE SUMMARY

Christina Hendrick is a seasoned grant manager with more than 14 years of experience. She has overseen more than **\$4 billion** of Federal Emergency Management Agency (FEMA) and U.S. Department of Housing and Urban Development (HUD) grant funding under FEMA Public Assistance (PA), FEMA Hazard Mitigation Grant Program (HMGP), COVID-19, and Community Development Block Grant (CDBG) programs.

In her current role as a Deputy Director for financial recovery services, Ms. Hendrick has maintained oversight of Tetra Tech's most critical PA and CDBG recovery projects across **7 FEMA regions**, as well as multiple COVID-19 recovery projects utilizing PA, CARES Act and other grant funding. She has served as a business management expert, strategic planner, and business planning leader for clients such as the City of Houston and Harris County, Texas; City of Philadelphia, Pennsylvania; Palm Beach County, Florida; Barnwell County, South Carolina; Dougherty County, Georgia; Richland County, South Carolina; Hamilton County, Tennessee; and states such as Louisiana and Massachusetts.

Ms. Hendrick specializes in the technical intricacies of grant management – from budgeting and quality control to finance planning and staffing – and excels in clear communication and reporting to deliver client satisfaction.

RELEVANT EXPERIENCE

Tetra Tech, August 2017 – Current**Deputy Director of Financial Recovery Services**

- Directly manages program managers spanning 7 FEMA regions, providing guidance and direction on PA, Individual Assistance, HGMP, CDBG, 404, 406 and 428 mitigation programs from Alaska to Puerto Rico.
- Maintains oversight of project operations across financial recovery practice nationwide, including management of budget, contracts, task orders, staffing, implementation, and compliance.
- Create Standard Operating Procedures and process improvements for all projects across the practice.
- Management and oversight of approximately 50 projects from small recovery operations to \$35 million budget operations.
- Ensure adherence to project accountability and revenue recognition as well as verifying the audit process.
- Maintain expert knowledge of state and federal regulations to provide feedback and improvement suggestions to governing entities, such as FEMA, HUD, U.S. Treasury, and other grant funding agencies.
- Create and foster long-term client relationships.

Disaster Recovery Management Consultant – City of Houston, Texas

- Oversaw the technical team completing project worksheets (PWs) for estimated expenditures associated with Categories A and B totaling \$360 million.
- Created standard operating procedures for site inspection, project formulation, grant management, and closeout processes.
- Oversaw technical teams conducting site inspections for infrastructure projects.

- Managed and tracked federal funds and activities through the New Delivery Model to submit up to \$2.1 billion in infrastructure funds.
- Oversaw day-to-day operations, subcontractor staff, and subject matter experts, implementing the program and interpreting rules and guidelines for the best remedy in place for each situation.
- Led project teams responsible for collecting data from City of Houston departments in the project formulation process for the recovery project.
- Ensured adherence to project accountability and revenue recognition as well as verified the audit process.
- Led financial tracking of all project activities to remain in compliance with Federal and contractual requirements.

Program Manager (CRF-Treasury and FEMA Grant Management) – City of Philadelphia, Pennsylvania

- Provides consulting services to the City in response to the COVID-19 emergency regarding current and future available funding and cost recovery sources from state and federal agencies.
- Reviews investment justifications and Scopes of Work for projects requested by City of Philadelphia departments for inclusion in the COVID-19 Spend Plan.
- Provides procurement support to the City for active and future COVID-19 related procurements by reviewing applicable documentation for compliance with Federal, State, and Local requirements specific to the Grant/Fund selected for the project.
- Liaises with City leadership to collect and review COVID-19 costs and relevant documentation submitted by departments and review/reconcile relevant project documentation for compliance with selected Grant/Fund source and submit Compliance Memorandum deliverables outlining potential reimbursement pitfalls and corrective action.
- Oversees auditing of cost data (time sheets, project specific costs, outgoing payments to funding recipients (residents, businesses) to ensure all activities have been performed to follow City project SOPs and guidelines to avoid fraud, waste and abuse of funds.

Deputy Director, Governor's Office of Homeland Security and Emergency Preparedness (GOHSEP) | Multiple Disasters**– Baton Rouge, Louisiana**

- Disaster Recovery Program Management consultant leading PA Recovery for multiple Disasters declared within the state of Louisiana.
- Direct and manage project team, providing guidance and direction on PA, performing cost analysis determinations for completed work, insurance review and reconciliation as well as eligibility reviews for management cost associated with implementing approved projects.

Deepwater Horizon Economic and Property Damages Settlement Program, August 2012 - August 2017

Federally appointed Senior Executive in charge of the Subsistence Program and Program Manager of IT Vendors for the Deepwater Horizon Economic and Property Damages Settlement Agreement, the largest class action settlement of its type in history.

Director of Subsistence Programs (Economic and Property Damage Claims), New Orleans, LA

- Created and Implemented Subsistence Program across 7 states (Alabama, Florida, Louisiana, Mississippi, New York and Virginia), 9 vendors, 70 managers (attorneys and analysts) facilitating the compensation of over \$460 million dollars to fisherman and hunters for their losses resulting from the oil spill in April of 2010.
- Negotiated policies at Panel Hearings with the parties, vendors, and Claims Administrator staff.
- Administered and monitored awards, as well as monitoring and evaluating program participants. Eliminated inefficiencies among claimant submissions and program processes with all pro se claimants and law firms within the program.
- Appointed to the Court Approved Data Retention Team to interpret and executed court ordered data retention policies and processes.

Program Manager of IT Vendors, New Orleans, LA

Directed all IT vendors within the Deepwater Horizon Economic and Property Damages Settlement Agreement implementing best practices for change management, cost control, IT asset management and IT vendor management within \$66.2 million budget. Negotiated agreements and manage contacts for continued support planning (staff, infrastructure, services, software, etc.). Managed the wind down and closeout of all IT related systems as required by program closeout policy and data retention order.

CDM Smith, March 2011 - August 2012**Economic Development Program Administrator, CDBG Disaster Recovery Program, Springfield, IL**

- Administered and monitored grants in CDBG/Economic Development programs; monitored and evaluated program participants; developed and compiled reports.
- Prepared scopes of work and RFPs to assist program participants in hiring contractors to complete project components.
- Tracked project costs, including reviewing pay requests from program participants to assure compliance with grant agreements, program requirements, and applicable regulations.
- Monitored project performance, created and shared status reports, monitored KPIs, and forecasted staffing/resource needs.
- Business management, strategic planning, business plan preparation, assistance tailored specifically toward microenterprises and start-ups, loan application and preparation services, and other technical assistance, such as accounting, insurance, marketing and legal.

Community Stabilization Program (CSP) Administrator, CDBG Disaster Recovery Program, Springfield, IL

- Administered and monitored grants in CDBG/Economic Development programs; monitored and evaluated program participants.
- Monitored project performance, created and shared status reports, monitored KPIs, and forecasted staffing/resource needs.
- Reviewed programs and policies and prepared scopes of work/RFPs to assist in hiring contractors to complete project components.
- Completed site visits to review documentation and meet with program participants. Addressed local needs in the post-flood revitalization efforts to assure positive changes to support the short and long-term stabilization and revitalization of affected communities.

Affordable Housing Program (AHP) Administrator, CDBG Disaster Recovery Program, Springfield, Illinois

Administered and monitored grants in CDBG/Economic Development programs; monitored and evaluated program participants. Completed site visits to review documentation and met with program participants.

Special Projects Administrator, Tioga County, New York, April 2012

Tioga County Damage Assessment-Hurricane Irene and Tropical Storm Lee.

Louisiana Department of Wildlife and Fisheries, March 2007 - March 2011**State Recovery Specialist/Outreach Coordinator (Federal Block Grant Programs) (September 2009 – March 2011)**

- Managed 4 projects within CDBG-funded federal fishery recovery program, including:
 - Writing program charter and guidelines
 - Managing program operations, including scope, budget, and deliverables
 - Developing and implementing objectives and policies for applications
 - Tracking and reporting project status, KPIs, performance, and costs
 - Directly managing project team
 - Conducting outreach, training, and technical assistance for potential disaster recovery grantees
- Designed and implemented application tracking system including user training and system oversight and permit and landing tracking system including user training and system oversight.
- Designed and delivered public presentations regarding recovery needs and activities to a variety of audiences including elected officials, media representatives, and other interested parties across Louisiana.

Disaster Recovery and Emergency Operations Assistant (March 2007 – September 2009)

Coordinated cabinet-level discussion among various state and federal agencies regarding combined efforts for recovery from Hurricanes Gustav and Ike. Lead contact person for LDWF Emergency Operations Center during Hurricanes Gustav and Ike under the direction of the Enforcement division. Managed web-based emergency operation center where field reports of oil and affected wildlife sightings are documented and assigned to local, state and federal officials for action.

Louisiana Office of Community Development-Disaster Recovery Unit, May 2006–March 2007**Disaster Recovery Specialist/Paralegal**

Prepared a variety of CDBG disaster recovery-related legal documents, including contracts, cooperative agreements, grant agreements, property covenants, affidavits, statements of assurance, and MOUs. Coordinated research efforts for ensuring all federal and state statutory and regulatory requirements were met in legal documents. Primary liaison to the Road Home Corporation in its CDBG disaster recovery activities associated with the Homeowners Assistance Program.



18 YEARS OF
EXPERIENCE

Areas of Expertise

- Disaster Response & Recovery
- Grant Administration
- Stafford Act Compliance
- Alternative Procedures

Grant Experience

- FEMA Public Assistance
- CARES Act
- USDA Agriculture Recovery Block Grants
- HUD CDBG
- ARPA

Education

Auburn University, Bachelor of Arts,
March 2000

Louisiana State University- Paul M.
Hebert Law Center, Juris Doctorate,
May 2004

Louisiana State University- Paul M.
Hebert Law Center, Bachelor of Civil
Law, May 2004

Allison McLeary, Esq.

Senior Management Team

Federal Grant Programs

EXPERIENCE SUMMARY

Ms. Allison McLeary is an experienced emergency response and recovery executive with a demonstrated history of building meaningful relationships across all levels of government. **As former Recovery Bureau Chief of the Florida Division of Emergency Management, she offers direct experience administering grant programming throughout the State of Florida.** She also served as Recovery Counsel for the Louisiana Governor's Office of Homeland Security and Emergency Preparedness (GOHSEP). She is a steadfast advisor in planning for, responding to, and recovering from challenges and disasters.

RELEVANT EXPERIENCE

Director, Disaster Recovery Programs (March 2021 – Present)

Tetra Tech, Inc.

Ms. McLeary serves as Director of Disaster Recovery Programs, providing policy guidance and program support. Ms. McLeary is an expert in FEMA policies, building and maintaining relationships with FEMA representatives. She analyzes policy and provides policy guidance to clients. She supports the Tetra Tech team to build programs that align with federal expectations and comply with client/federal requirements. She maximizes operational efficiencies by analyzing individual projects with a holistic lens, leveraging best practices from Tetra Tech debris management operations throughout the Nation. Additionally, Ms. McLeary coordinates relationships with funding agencies and local partners to streamline project operations.

Recovery Bureau Chief (March 2020 – February 2021)

Compliance and Appeals Officer (December 2018 – February 2020)

Florida Division of Emergency Management

- Administered all FEMA Stafford Act programs for the State of Florida (\$9.8+ Billion over 26 federally declared events under management)
- Validated and Paid through FDEM an unprecedented \$4.1 Billion in Recovery funds in the period January 2019-February 2021, including \$2.7 Billion in PA and over \$300 Million in USDA Agriculture Recovery Block Grants
- Developed and implemented the State strategy for \$1.275 Billion in CARES-Coronavirus Relief Fund payments to 55 medium and small counties. (\$1.07 Billion validated and paid June 2020-February 2021)
- Served as Alternate Governor's Authorized Representative and Deputy State Coordinating Officer for all FEMA declared events in Florida
- Created a comprehensive FEMA PA Compliance program, including risk assessments, monitoring, and technical assistance and programmatic guidance tailored to address specific compliance risks

Recovery Legal Counsel (January 2017 – November 2018)**Louisiana Governor's Office of Homeland Security and Emergency Preparedness**

- Served as Recovery counsel- advising on all matters of emergency management and whole community Recovery
 - Programs included FEMA/Stafford Act programs and HUD-Community Development Block Grants (CDBG-DR)
- Audit liaison to US Department of Homeland Security- Office of Inspector General and FEMA
- Developed and delivered a comprehensive outreach and education technical assistance strategy to grant subrecipients in Louisiana

FirstNet Program Manager (February 2015 – January 2017)**Louisiana Division of Administration, Office of Technology Services**

- Oversaw a team effort to identify needs, perform gap analyses, and plan for the buildout of the State's portion of the Nationwide Broadband network, known as FirstNet.
- Identified the needs and expectations of the State's 62,000+ first responders and worked with the US Department of Commerce and the FirstNet Authority to include those inputs in the \$7 Billion RFP for the buildout and operation of the FirstNet network.

State Police Legal Counsel (August 2003 – May 2013)**Louisiana Department of Public Safety and Corrections, Louisiana State Police, Office of Legal Affairs**

- Counsel to State Police on matters of policy, operations, public records law, personnel management, emergency management/crisis response, and investigations
- Served as legislative liaison and helped draft numerous bills and testified in committee on several measures including revisions to the electronic surveillance framework and the regulation of private security, and the role of volunteers in emergency response.
- Represented the Louisiana Oil Spill Coordinator's Office and was assigned Attorney Supervisor throughout the response to the Deepwater Horizon event
 - Led a multi-agency team of in house, state agency lawyers in the early days of the disaster
 - Coordinated efforts among state agency counsel to ensure that necessary inputs needed for the response, damage assessment and claims under the Oil Pollution Act of 1990, Clean Water Act and other applicable federal and state laws were supported.



Reuben Meador, CPM, CSND

Project Manager, Hazard Mitigation

19 YEARS OF
EXPERIENCE

20 DISASTERS

Areas of Expertise

Emergency Management

Regulatory Compliance

Training & Development

Consulting

Key Training/Certifications

Certified Project Manager (CPM),
AAPM

Certified Sustainable Neighborhood
Developer (CSND), Accreditation:
Southern University, LA

FEMA/DHS ICS/IS Courses

EMI Grants Management / Floodplain
Management

Certified Honor Graduate, U.S. Signal
Corps, U.S. Army

Education

Monterey Peninsula College,
Computer Science

EXPERIENCE SUMMARY

Mr. Meador is a highly qualified emergency management executive with approximately 19 years of expert experience working with the private non-profit sector, and federal, state, and local governments, including working as a senior manager for the Federal Emergency Management Agency (FEMA). Mr. Meador possesses a firm grasp of the 44 CFR/2 CFR, the Stafford Act, as well as HUD-related disaster recovery and mitigation programs to meet the emergency preparation and disaster recovery business needs of communities on a small and large scale. He is a dedicated leader that provides the regulatory knowledge needed to deliver successful outcomes. Mr. Meador works directly with government leaders assisting them with high-level decisions that directly affect the administration and delivery of most federal grant programs.

RELEVANT EXPERIENCE

Senior Program Manager (September 2022 - Present)

Tetra Tech | Florida

Mr. Meador recently joined the Tetra Tech Disaster Recovery team as part of the Public Assistance Practice focused on assisting clients with various grant management projects. Mr. Meador will work alongside clients to provide them with successful and compliant programs.

Senior Program Manager (September 2018 – September 2022)

GP Strategies Corporation | Maryland

- Strategized, implemented and maintained program initiatives that adhered to organizational objectives
- Developed program assessment protocols for evaluation and improvement
- Maintained organizational standards of satisfaction, quality, and performance
- Oversaw multiple project teams, ensuring program goals are reached
- Managed budget and funding channels for maximum productivity
- Worked closely with state and federal program representatives, cross-functional teams, and assigned project managers to plan and develop scope, deliverables, required resources, work plan, budget, and timing for new initiatives
- Managed program and project teams for optimal return-on-investment, and coordinate and delegate cross-project initiatives
- Identified key requirements needed from cross-functional teams and external vendors
- Developed and managed budget for projects and be accountable for delivering against established business goals/objectives
- Worked with other program managers to identify risks and opportunities across multiple projects within the department
- Analyzed, evaluated, and overcame program risks, and produced program reports for management and stakeholders

- Responsible for the development and administration of the Hazard Mitigation Grant Program (HMGP), CDBG-MIT, and CDBG-DR applications which resulted in federal funding of large-scale construction projects such as drainage infrastructure, structural retrofits, property acquisition and elevation, community safe rooms, and other construction projects eligible under the HMGP, PDM, FMA, CDBG, BRIC, and other grant programs.
- Provided oversight and management of construction projects.
- Developed Request for Proposals/Qualifications (RFP)(RFQ) for clients ensuring that federal compliance and policy guidance is included.
- Responsible for contract and task order management.
- Provided procurement oversight and training to local governments.
- Technical assistant liaison to local governments and municipalities instructing them on the policies, laws, and guidelines associated with the Hazard Mitigation Grant Program.
- Leadership responsibilities included directing a team, financial management, grant management oversight, reporting to executive management and shareholders, and other duties as appropriate.
- Project Management duties included project development, implementation, monitoring, closeout of grants, reviewing and evaluating work processes, management controls, communication channels, and information systems offering suggestions for improvement.
- Provided guidance in the administration, review, funding, and subsequent closeout of projects funded through the Hazard Mitigation Grant Program and CDBG programs.

HMA Senior Program Manager (September 2016 – September 2018)

Innovative Emergency Management | Washington, DC

- Responsible for the development of Hazard Mitigation Grant Program (HMGP), CDBG-MIT, and CDBG-DR applications which resulted in approval for construction funding of large-scale drainage, retrofit, acquisitions, elevations, Safe Rooms, and other construction projects eligible under the HMGP, PDM, FMA, BRIC and grant programs.
- Responsible for the oversight and project management of construction projects totaling approximately one billion dollars.
- Technical assistant liaison to local governments and municipalities instructing them on the policies, laws, and guidelines associated with the Hazard Mitigation Grant Program.
- Liaison between FEMA and Parishes, to resolve programmatic and procurement issues, which increased efficiency in all areas of the program.
- Responsible for providing quality control review of documents relating to procurement and contracting of engineering firms as well as construction companies.
- Project Management duties included project development, implementation, monitoring, and closeout of grants; reviewing and evaluating work processes, management controls, communication channels, and information systems offering suggestions for improvement.
- Provided guidance in the administration, review, funding, and subsequent closeout of projects funded through the Hazard Mitigation Grant Program (HMGP). Knowledge of ICC, Floodplain Management, HMA Guidance, SHPO, NEPA Laws, 44 CFR/2 CFR policy guidelines, FEMA CEF Guidance, and cost reasonable analysis guidelines as they relate to engineering cost and project management fees.
- Speaker/Presenter at the 2016/2018 National Hurricane Conference, Orlando, Florida.

Senior Program Manager, HMA Programs (August 2008 – August 2016)

Witt O'Brien's | Washington, DC

- Responsible for the development and approval of Hazard Mitigation Grant Program (HMGP) applications to fund large-scale drainage, retrofit, Safe-Rooms, acquisitions, elevations, and other construction projects eligible under the HMGP, PDM, FMA, RFC, and SRL grant programs.
- Acted as technical assistant liaison to local governments and municipalities instructing them on the procurement policies laws, and guidelines associated with the Hazard Mitigation Grant Program and Federal grants.
- Project Management duties included project development, implementation, monitoring, and closeout of grants; reviewing and evaluating work processes, management controls, communication channels, and information systems offering suggestions for improvement.

- Provided guidance in the administration, review, funding, and subsequent closeout of projects funded through the Hazard Mitigation Grant Program (HMGP). Knowledge of ICC, Floodplain Management, HMA Guidance, SHPO, NEPA Laws, 44 CFR policy guidelines, FEMA CEF Guidance and cost reasonable analysis guidelines as they relate to engineering cost and project management fees.
- Developed and implemented processes that were useful in internal tracking of expended grant funds as well as construction milestone completion. These processes helped to create a forward thinking and proactive culture.
- Floodplain management review, E-grants and NEMIS data entry, Non-Disaster grant application development, LAHM submittal.
- Selected as Speaker/Presenter at the 2016/2018 National Hurricane Conference, Orlando, Florida.
- Educated sub-grantees and state leadership on FEMA Public Assistance program policies, regulations, and guidelines.
- Provided technical assistance at kickoff meetings, and provided required documentation for project appeals, time extensions, and project scope and amendment requests for reimbursement and project closeout and the use of the Mb3.

Deputy HMGP Planning and Program Manager

Federal Emergency Management Agency (FEMA) | Orlando, FL

- Directly responsible for managing and training approximately 30 FEMA HMGP staff who assisted in the development of applications throughout the State of Florida.
- Developed and implemented procedures and processes for the administration and processing of HMGP applications. Developed training materials and took part in a Statewide HMGP and Public Assistance (PA) training which helped government officials understand the intricacies of each grant program.
- Organized programs and activities in accordance with the mission and goals of the organization.
- Developed new programs to support the strategic direction of the organization.
- Created and managed long-term goals.
- Developed a budget and operating plan for the program.
- Developed an evaluation method to assess program strengths and identify areas for improvement.
- Wrote program funding proposals to guarantee uninterrupted delivery of services.
- Managed a team with a diverse array of talents and responsibilities.
- Ensured goals are met in areas including customer satisfaction, safety, quality, and team member performance.
- Implemented and managed changes and interventions to ensure project goals are achieved.
- Met with stakeholders to make communication easy and transparent regarding project issues and decisions on services.
- Produced accurate and timely reporting of program status throughout its life cycle.
- Analyzed program risks.
- Assisted in the development of the state administrative plan and contributed added support in the development and review of the State of Florida's Enhanced plan. Cross training in Public Assistance PA-406.
- Provided cost reasonable analysis determination reports on all projects
- Researched and developed systems to track the completion of incoming tasks, current status of all project applications, and processes to make local governments more accountable for quarterly reporting.
- Served as the liaison between local Office of Emergency Preparedness Directors, local government officials and FEMA and as second in charge in the absence of an immediate supervisor.
- Reviewed Hazard Mitigation Grant Program (HMGP) applications and administered grants in accordance with 404 mitigation grant policies.
- Developed and reviewed Benefit-Cost Analysis and Environmental determination reports and verified if a parish project was eligible to receive grant money.
- Collected required documentation for the HMGP program according to the 44 Code of Federal Regulations ensuring that GOHSEP and the local jurisdictions were in compliance for auditing and legal purposes.
- Prepared briefs to immediate supervisor and the State Hazard Mitigation Officer on grant application statuses through verbal and written communications.



30+

YEARS OF
EXPERIENCE***Areas of Expertise***

- Hazard Mitigation Planning
- Community Resilience Planning
- Urban Planning
- Risk Assessment
- Floodplain Management
- Community Rating System
- FEMA Grant Programs
- FEMA Benefit/Costs Analysis

Key Training/Certifications

Certified Floodplain Manager, 2000

ASFPM US-00-00143

Education

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

EXPERIENCE SUMMARY

Robert Flaner has spent over 30 years developing 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). During his tenure with the CRS program, Rob developed strong working relationships with Federal, State, and Local partners. 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 expanded this diverse experience in 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. 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.

RELEVANT EXPERIENCE**Municipal Water District Hazard Mitigation Plan**

Marin

Tetra Tech was selected by the Marin Municipal Water District to facilitate the development of its initial hazard mitigation plan. Rob was the project manager for this effort, leading a multidisciplined team with the capacity to assess the unique capabilities of special purpose service provider. The district's principal objectives for this effort was to position itself for eligibility for FEMA Hazard Mitigation Assistance (HMA) grant funding. This plan includes a comprehensive risk assessment of district assets as they intersect 8 identified hazards of concern (dam failure, drought, earthquake, flood, mass movements, severe weather, tsunami, and wildfire). The plan also includes a robust profile of the possible impacts from climate change on the district's abilities to provide its services. The plan identifies and prioritizes 23 actions to be implemented over the 5-year performance period that will move the district towards its resiliency goals. The plan was approved pending adoption by FEMA Region IX on December 20, 2021.

Multijurisdictional Hazard Mitigation Plan Update

Sonoma County

Tetra Tech completed a comprehensive update to the Sonoma County Hazard Mitigation Plan by converting the plan from a single jurisdiction format that covered only Sonoma County, to a multi-jurisdictional format providing compliance to 15 local governments (the County, 4 cities and 10 special purpose districts) within the Sonoma County Operational area. Rob was the project manager for this effort leading a multidisciplined team with the capacity to assess

the unique vulnerabilities of Sonoma County. The cornerstone of this plan was a comprehensive risk assessment of 9 hazards of concern (dam failure, drought, earthquake, flood, landslide/debris flow, se-level rise, severe weather, tsunami, and wildfire). The wildfire component of the plan was enhanced using new wildfire mapping and severity data generated by the county using vital data from recent fires within the operational area. Also unique to this planning effort was the development of an ESRI "Story Map" as an interactive public engagement/risk communication tool that will have legacy with the County in perpetuity. This Story Map supported a public outreach strategy that emphasized inclusion and social equity within the planning area. The plan identifies and prioritizes over 300 action to be implemented by the 15 planning partners. The Plan was approved by FEMA Region IX on October 13, 2021.

Multi-Hazard Mitigation and Resilience Plan

County of Kauai

Tetra Tech completed a comprehensive update to the Kauai County Hazard Mitigation Plan. Rob was the project manager for this effort leading a multidisciplined team with the capacity to assess the unique capabilities of this island community. The cornerstone of this project was a comprehensive risk assessment of 10 natural hazards of concern (Tropical Cyclone, Wildfire, Climate Change, Inland Flood, High Surf-Coastal Flood & Erosion, Tsunami, Landslide, Dam Failure, Earthquake, and Heat & Drought). Hazus-MH was utilized to assess the dam failure, tropical cyclone, earthquake, and flood hazards. Tetra Tech's level II, user-defined protocol was applied to the earthquake and flood analyses. This plan was facilitated through a 13-member Steering Committee made up of planning partners and other stakeholders from within the planning area. This committee identified a multi-media public involvement strategy that was deployed by the Tetra Tech planning team during the course of the project. This included a Story-Map that played an integral role in engaging the public during the plans development and will be utilized by the County to communicate the plan's implementation. The plan identified and prioritized 49 actions to be implemented by the Kauai County over the 5-year performance period of the plan. The Plan was approved by FEMA Region IX on April 30, 2021.

Harris County Hazard Mitigation Plan Update

Harris County, TX

As project manager, Rob led Harris County Office of Homeland Security and Emergency Management (HCOHSEM) in a comprehensive update to its Hazard Mitigation Plan. The planning partnership included 40+ municipal and local taxing district planning partners that covered most of the local government interests in the planning area. The planning process was facilitated with a strict adherence to the CRS 10-step planning requirements. This plan update process was facilitated over a 14-month time frame with plan submittal to the Texas Department of Emergency Management (TDEM) in February of 2020, and FEMA approval of the final plan on July 23, 2020.

Hawaii County Hazard Mitigation Plan

Hilo, HI

In July of 2019 Tetra Tech was awarded the project to prepare the 2020 update to the Hawaii County Hazard Mitigation Plan (HMP), as required by FEMA regulations. Rob was the project manager for this effort leading a multidisciplined team with the capacity to assess the unique capabilities of this island community. Tetra Tech conducted the HMP update using a planning process that met both Disaster Mitigation Act (DMA) of 2000 requirements and CRS Activity 510 Comprehensive Floodplain Management Plan requirements. Tetra Tech completed an extensive repackaging of the County plan to increase readability, usability and integration opportunities with County plans and programs that could support/enhance hazard mitigation actions identified by the plan. Our team conducted an enhanced risk assessment using HAZUS-MH and GIS analysis as applicable for 12 hazards of concern. The assessment included an update of the general building stock as well as the development of a critical facilities database. The team developed and employed a public participation strategy that included a public survey, several public meetings, and a public comment period. Our team updated hazard profiles with best available data, the results of the risk assessment and a description of hazard events that have impacted the County

since the development of the previous plan. The plan identified and prioritized over 35 actions based upon the County's core capabilities and capacity to implement the actions. The plan was approved by FEMA Region IX on September 15, 2020.

East Orange County Water District Hazard Mitigation Plan

Tustin, CA

Tetra Tech was selected by the East Orange County Water District to facilitate the update of its initial hazard mitigation plan. The district had 2 principal objectives for this effort; first to integrate this mitigation planning effort with its on-going America's Water Infrastructure Act (AWIA) planning effort and second, to identify eligible projects for FEMA's new "Building Resilient Infrastructure and Communities" (BRIC) grant program. Rob was the project manager for this effort leading a multidisciplined team with the capacity to assess the unique capabilities of special purpose service provider. This plan includes a comprehensive risk assessment of district assets as they intersect 8 identified hazards of concern (dam failure, drought, earthquake, flood, landslide, severe weather, wildfire, and space weather). The plan also includes a robust profile of the possible impacts from climate change on the district's abilities to provide its services. The plan identifies and prioritizes 16 actions to be implemented over the 5-year performance period that will move the district towards its resiliency goals. The plan was approved by FEMA Region IX on September 17, 2020.

Chelan County Multi-Jurisdiction Natural Hazard Mitigation Plan

Chelan County, WA

Following the successful completion of the initial Comprehensive Flood Hazard Management plan for the Chelan County Flood Control District, Tetra Tech was awarded the contract to complete the 5-year update to the Chelan County Multijurisdictional Hazard Mitigation Plan. Rob was the project manager for this project, leading a multidisciplined team consisting of members from Tetra Tech and its teaming partner, Perteet. This was a multi-jurisdictional planning effort that covered the County, 5 Cities and 9 special purpose districts within the Chelan County operational area. The Plan update was facilitated through a 10-member Steering Committee and followed the 10-step planning process prescribed under FEMA's Community Rating System. The plan fully assessed 8 hazards of concern, including robust Hazus modeling for the Dam Failure, Earthquake and Flood hazards. The plan identifies and prioritizes 249 actions to be implemented over a 5-year performance period by the 15 planning partners. The project was completed on time and on budget and was approved by FEMA Region X on December 30, 2019.

Santa Ynez Band of Chumash Indians, Tribal Hazard Mitigation Plan

Solvang, CA

Tetra Tech was selected by the Santa Ynez Band of Chumash Indians to facilitate the development of its initial tribal hazard mitigation plan pursuant to the requirements of the Disaster Mitigation Act of 2000. This project was an offshoot of a facilitated resilience planning Through EPA's Building Blocks program, led by Tetra Tech. The Building Blocks" project identified the development of a hazard mitigation plan as a key next step to help the tribe to become more resilient to flood hazards. This was the initial planning effort for the Tribe that was funded by a FEMA Pre-Disaster Mitigation grant. The plan is built upon a comprehensive risk assessment of 7 natural hazards of concern that may impact the tribe including the impacts from climate change; and identifies and prioritizes 17 actions to be completed over its 5-year performance period. The plan emphasized tribal sovereignty focusing on the preservation of cultural resources that are important to its tribal members. Rob was the Project Manager and lead project planner for this effort coordinating a team of identified discipline leads. This was a stand-alone tribal hazard mitigation planning approved by FEMA on November 21, 2019.

Contra Costa County Hazard Mitigation Plan Update

Contra Costa County, CA

Tetra Tech was selected by Contra Costa County Office of Emergency Services to facilitate the 5-year update to the Contra Costa County Hazard Mitigation Plan. Rob managed the multi-disciplined team that completed the scope of work for this

project, which was a multi-jurisdictional planning effort covering the County, 15 cities and 19 special purpose districts. This planning process assessed the risk to 8 identified natural hazards of concern as well as a qualitative assessment of the potential impacts from global climate change to those natural hazards. The plan was developed to be in full compliance with state of California requirements mandated under Assembly Bill 2140 and Senate Bill 379. The plan identified and prioritized over 520 mitigation actions to be implemented by 35 local government planning partners. This plan followed the CRS planning script adding the additional benefit of CRS credits for the 6 CRS participating communities within the planning area. The cornerstone of this plan update was a comprehensive risk assessment of the planning area using HAZUS-MH following the level-2, user-defined protocol pioneered by Tetra Tech, that included a comprehensive update of over 3000 critical facilities using the CDMS tool within Hazus. The plan received approval by both the California Office of Emergency Services and FEMA Region IX on April 19, 2018.

The City of Los Angeles Hazard Mitigation Plan Update

Los Angeles, CA

Tetra Tech was selected by the City of Los Angeles, Emergency Management. This was a very time sensitive project due to pending plan expiration. The entire planning process for initiation to submittal was completed in 6 months. Department to perform a comprehensive update to the city's 2012 Hazard mitigation Plan. This process engaged over 15 City departments in the identification and prioritization of over 300 hazard mitigation actions. The cornerstone of the plan update was a comprehensive risk assessment of over 19 identified hazards of concern. Multiple scenarios were modeled for the Dam failure, Earthquake, Flood, tsunami hazards using FEMA's Hazus-MH risk assessment platform following the Tetra Tech refined user-defined protocol for level II analyses.

***Areas of Expertise***

- Benefit Cost Analysis
- Grant Applications
- FEMA BCA Tool
- FEMA Hazus Tool
- ArcMap
- ArcPro
- ArcGIS Online
- ESRI Story Map
- ESRI Experience Builder
- Economics and Water Resources Finance
- Data analysis
- Water Funds
- Water resources planning
- Water resources modeling

Registrations/Affiliations

National Association of Environmental Professionals (NAEP)

Education

Masters of Environmental Management, Duke University, 2017

B.A., Economics. Baldwin Wallace University, 2015

Honors: Omicron Delta Epsilon (The International Economics Honor Society)

Jennifer Lenart, MEM

Hazard Mitigation Specialist

EXPERIENCE SUMMARY

Ms. Lenart obtained a Master of Environmental Management from Duke University and joined Tetra Tech as a natural resource planner and economist in June 2017, specializing in water resources management. Jennifer has worked on numerous benefit-cost analyses for regional and statewide HMTAP programs and FEMA HMGP, FMA, and BRIC grant application programs. Ms. Lenart has supplemented her benefit-cost analyses using large data analyses in ESRI ArcGIS, FEMA's Hazus-MH Tool, and FEMA's BCAR tool. These projects have ranged from roadside stabilization assessments, flood mitigation, and diversion projects, erosion control, extreme weather mitigation for critical infrastructure, and impact assessments for residual threats from volcanic activity.

RELEVANT EXPERIENCE

Planning and Data Analysis

California Generators Benefit Cost Analyses (March 2022 – Present)

Analyzing the benefits of purchasing several generators for the City of Cotati and the Crescenza Water District to maintain the continuity of operations for potable water and wastewater utilities. Referencing historical outage events to justify the need for generators. Determining reoccurrence intervals for the historical cause of outages including PSPS events, wind events, rainfall events, and earthquake events.

NJOEM NFIP Grant Application Screening (December 2022 – Present)

Reviewing statewide NFIP, policy, and claims information for repetitive loss and severe repetitive loss NFIP properties in the State of New Jersey to identify structures that can be eligible for an elevation/acquisition grant application. Compile addresses for project manager and map out list of properties across the state to view the distribution of vulnerable properties.

City Hall Annex Benefit Cost Analysis (December 2022 – Present)

Creating a benefit cost analysis for the City Hall Annex and Garage for Houston, Texas. Analyzing the benefits to implement floodproofing measures around the annex and garage and elevating critical infrastructure that maintains the operation of the City Hall Annex. Referencing the impacts from Hurricane Harvey to create professional expected damages analysis. Responding to the request for information provided by FEMA to address outstanding questions.

Roadside Stabilization Analysis. Aransas County, Texas (May 2018 – Present)

Project review and analysis of three roadside stabilization projects along Aransas Bay where erosion rates are increasing and the roadways are at risk of breaching. Apply economic loss assessments with businesses along the roadways, isolated population analyses for households that would become stranded from roadway breaching, impacts to tourism for major parkways and changes to evacuation

access with potential detour route estimates. Responding to requests for information provided by FEMA to clarify any outstanding questions.

Pequannock 2020 and 2021 FMA Applications (September 2020 – October 2020; September 2021 – October 2021)

Developing FEMA Flood Mitigation Application benefit cost analysis materials and grant application materials for the Township of Pequannock's home elevation project. Conduct outreach to private contractors who have worked on elevation projects in the Township to acquire cost estimation information. Import results and application materials into FEMA GO.

Lucky Drive Flood Protection Project. Corte Madera, California (March 2021)

This benefit cost analysis was for a HMGP application to elevate a major traffic collector susceptible to frequent flooding. The project assessed the risk of future sea level rise and tidal surge activity referencing resources from NOAA, engineering reports, and historical loss data. The analysis calculated the estimated number of days the roadway would be closed due to flooding and the associated damages.

Emergency Generator Project for Water Infrastructure. Shelter Cove, Humboldt County, California (February 2021)

This benefit cost analysis was for a HMGP application to fund three mobile generators to support water and wastewater services provided by the Resort Improvement District #1. The analysis reviewed the critical infrastructure's risk to power outages due to insufficient energy supply and California's Public Safety Power Shutoff program.

County of Hawaii Benefit Cost Analyses. Hawaii County, Hawaii (November 2019 – April 2020)

Performed benefit-cost analyses using FEMA BCA Toolkit. Reviewed a major acquisition project for structures impacted by historical lava damages, an IT resilience project to maintain key County services during extreme weather events, and a project about restoring emergency communication towers to maintain functionality of emergency personnel in response to extreme weather events.

DR-4332 – HMGP Application Development. Fort Bend County, San Patricio County, Aransas County, Texas (May 2018 – October 2019)

Through direct contracting and FEMA's Hazard Mitigation Technical Assistance Program (HMTAP), the purpose of the project was to develop and review all sections of each application, including the analysis of hazard history, previous flood data, repetitive loss data, benefit-cost analysis, and environmental compliance. Through this process she facilitates the data collection of structures, utilities, and roads that may benefit from mitigation and resiliency projects proposed by a municipality, county, and state. Collect infrastructure characteristics to generate depth-damage curves. Collaborate with team members and county staff to develop and submit FEMA grant applications detailing the benefits and costs of the proposed projects including, but not limited to, road and structure elevation, flood water detention, and flood water diversion. Work directly with FEMA to evaluate the project proposal and impacts to the community.

Fort Myers Drainage Improvement Damage Analysis. Fort Myers, Florida (July 2020 – December 2021)

Review and analysis of drainage improvement project for six major streets along Fort Myers beach. Apply tax assessor data to calculate total replacement cost value of each structure. Utilize USACE depth damage curves to estimate damages for each structure based on pre- and post-project flood depth conditions.

Teton Creek Stream Restoration Analysis. City of Driggs, Idaho (December 2019)

Review and analysis of a restoration project that proposed a design to protect structures from future risk of flooding caused by avulsion of Teton Creek up to the 100-year flood event, as well as reduce the existing rates of Teton Creek's streambank erosion which is threatening to breach surrounding residential, agricultural, and public infrastructure. Investigate the future avulsion paths of the creek to estimate the structures that would become breached by erosion and flood waters.



10 YEARS OF
EXPERIENCE

Areas of Expertise

- FEMA Public Assistance Guidelines and Compliance
- Public Assistance Appeals
- Disaster Cost Recovery
- Policy Development
- Risk Management
- Financial Reporting

Education

University of North Dakota, Master of Business Administration (May 2011)

University of North Dakota School of Law, Juris Doctor, with distinction (May 2011)

Minnesota State University Moorhead, Bachelor of Arts in Economics (May 2005)

Meridith Sanders

Procurement

EXPERIENCE SUMMARY

Ms. Meridith Sanders is a financial recovery and management professional with a wide range of experience throughout her 10-year career. She evaluates existing contracts for FEMA Public Assistance 2 CFR 200 compliance and advises accordingly to reduce the risk of deobligation. Ms. Sanders successfully advocates for clients, through the draft and submission of both first and second appeals. She monitors new guidance related to disaster cost recovery and disseminates guidance to clients. She also conducts applicant timesheet reviews and the creation of force account labor, material, and equipment summaries. Most recently, she assisted clients from Miami to Anchorage with completing FEMA Public Assistance (PA) Project Worksheets for categories A-G in response to hurricanes, earthquakes, and COVID-19. Ms. Sanders has a background in business management, with experience in process management, finance, and risk management.

RELEVANT EXPERIENCE

Program Delivery Manager (March 2020-Present)

Harris County, TX

Harris County engaged Tetra Tech in March 2020 to assist in responding to the COVID-19 pandemic. Ms. Sanders worked closely with the Public Health, Budget Management, Community Services, and Engineering Departments to establish multiple sheltering operations and alternate care sites. She wrote and submitted an expedited project worksheet to ensure the County received immediate funding to address the developing and continuing response effort. Ms. Sanders reviews all emergency purchases for compliance with federal requirements and makes recommendations for the most appropriate funding source based on the nature and method of each activity

Program Delivery Manager (April 2019-Present)

Port of Corpus Christi, TX

Evaluate existing contracts for FEMA Public Assistance 2 CFR 200 compliance and draft addendums to reduce risk of deobligation. Assisted client in future event planning including operating procedures, best practices, and policy development. Develop roadmap to expedite and streamline recovery by meeting with client and FEMA, assessing damage inventory and Grants Portal status. Compliance review of future contracts and procurements to minimize risk of future deobligation. Applicant timesheet review and creation of force account labor, material, and equipment summaries. Small project certification packet creation. Create project worksheets for management and administrative costs. Project closeout.

Financial Analyst (December 2015—April 2019)

City of Houston, TX

Managed Hurricane Harvey recovery efforts for multiple City of Houston departments as the liaison to the Finance Department. Coordinated communication between FEMA, external consultants and City of Houston departments. Ensured department activities complied with FEMA disaster cost recovery guidelines established under 2 CFR 200 and other sources. Planned and executed city-wide training for topics such as Disaster Cost Recovery Procurement. Developed training manuals and PowerPoint presentations. Drafted and reviewed policies and procedures for compliance with local and federal requirements. Created, monitored, and analyzed specialized reports. Assisted in the development, implementation and monitoring of policies and procedures as part of City Enterprise Risk Assessment Project.

Consultant (June 2013—December 2015)

Morgan Garris Houston, TX

- Reviewed client financial processes and procedures to ensure compliance with statutory regulations and requirements. Performed compliance testing and consulting. Facilitated open and direct discussions about risk and
- control environments with clients to identify key risks. Performed risk and control assessments. Other duties included: Client relationship management, Business management consulting including process management and
- financial management, Review of statutory changes, Composing executive summaries of pertinent legal changes, Development of marketing materials, Business development.

Financial Analyst - ITNA Budget and Portfolio (November 2012—June 2013)

Marathon Oil (Insight Global) Houston, TX

- Financial reporting and forecasting. Reconciling budgets for previous years. Assigning costs to appropriate cost centers. Strategic planning and budgeting. Financial project management. Creating PowerPoint and Excel
- documents for C-Level audience. Software Asset Management, compliance and software procurement. Reviewing invoices to determine spending patterns and reduce costs. Using SAP FI to gather financial data and reporting. Budget coordination for multiple asset teams.

Client Relations Associate (August 2011—March 2012)

Alliantgroup Houston, TX

- Managed client relations and led project management for multiple service line teams at specialty tax consulting firm. Directly managed 16 individuals on 4 separate teams. Coached team members on project performance, professionalism, and communication techniques focusing on phone and email communication.
- Developed project plans for 300 simultaneous projects to comply with client expectations. Ensured compliance with Statute of Limitations resulting in no missed statutory deadlines. Fostered relationships with clients and CPA firms. Provided employee coaching and team mediation to develop professionalism. Resolved client issues regarding deadlines, expectations, and billing concerns. Created new business opportunities through phone calls to existing clients.
- Traveled to client locations to ensure client expectations were met regarding work product, professionalism, and billing.

Vice President of Finance (February 2010—August 2011)

Dakota Venture Group Grand Forks, ND

Managed finances for university-based angel capital fund. Created and executed operating budget for \$400,000 investment fund. Negotiated terms of investments. Led due diligence report team and conducted legal, market, and industry research. Managed existing portfolio investments. Developed exit plan for existing investment. Invested in start-up organizations. Created and revised legal and business documents for a new angel investment fund. Acted as co-coordinator and event planner for fundraising campaign to create a new multi-million-dollar angel fund. Advised local small businesses and start-ups on elevator pitches, operation and obtaining capital for growth.

Law Clerk (April 2010—May 2011)

Schuetzle Law Firm Grand Forks, ND

Provided clerking and administrative assistance for a small business-oriented law firm. Conducted legal research, specifically, for trial and litigation case preparation. Drafted documents necessary for new business start-ups. Interviewed clients. Researched and analyzed law sources to prepare drafts of briefs or arguments for review, approval, and use by attorney. Searched for and studied legal documents to investigate facts and law of cases to determine causes of action. Performed legal analysis.



16YEARS OF
EXPERIENCE

Areas of Expertise

- Planning and Design
- Construction
- Permitting
- Transportation
- Infrastructure

Key Training/Certifications

- Professional Engineer, Florida, No. 74415, 2012
- Professional Engineer (Civil), California, No. 77563
- Professional Engineer, Hawaii, No. 17320, 2016
- FDOT TTC Advanced Certification, No. 39989

Education

MBA, University of Central Florida, 2019

BS, Civil Engineering, Arizona State University, 2007

Timothy Vanderwalker, PE

Senior Engineer/Senior Programmer

EXPERIENCE SUMMARY

Mr. Vanderwalker's experience includes involvement in many diverse and challenging projects. He has gained experience in project execution through planning, design, permitting, construction, and certification. He has worked with private and public clients from the municipal to federal level. His technical expertise includes the preparation of contract documents including plans, specifications, and development of opinions of cost for numerous infrastructure projects including transportation and roadway improvement projects, water system improvement projects, and water reuse projects. He has experience in transportation geometric design, stormwater design, and railroad coordination and design. He also has experience in developing reports relevant to reclaimed water use and emergency response policy, along with aiding clients in obtaining grant funding. He has worked with clients to identify project needs and provide solutions that meet stakeholders' needs while meeting project budgets and time constraints.

RELEVANT EXPERIENCE

Thornby Park Boardwalk Improvements, City of Deltona, FL. 2018 – 2019. Project Manager

Design and permitting of trail enhancement including boardwalks, a scenic overlook, and construction of a replica historical railroad bridge. Performed analysis of the site, prepared construction documents, provided ecological assessment services, performed Environmental Resource Permit (ERP) permitting through St. Johns River Water Management District (SJRWMD), and performed construction administration services.

Transportation

Traffic Signal Design, St. Cloud, FL. Project Manager

New traffic signal at the intersection of Friars Cove Lane and Canoe Creek Road for Fire Station No. 33. Designs included mast arm assemblies, base mounted signal controllers, LED vehicular and pedestrian traffic signals, pedestrian pushbutton detection. Controller was outfitted with emergency signal pre-emption for Fire Station No. 33. Additionally, ADA ramps with new crosswalks and stop bars were designed for the intersection to cross Canoe Creek Road in coordination with the pedestrian pushbuttons for ADA compliance. SUE services were included to aid in the location and identification of the utilities within the vicinity of the intersection.

Traffic Signal Designs, St. Cloud, FL. Project Manager

New signals at the intersections of Nolte at Budinger and Fire Station No. 32 at Old canoe Creek Road. Designs included mast arm assemblies, base mounted signal controllers, LED vehicular and pedestrian traffic signals, traffic detection and pedestrian pushbuttons. The emergency signal incorporated a wireless pre-

emption in-station pushbutton for activation of the traffic signal. Additionally, ADA ramps with new crosswalks and stop bars were designed for the intersection of Nolte and Budinger Road in coordination with the pedestrian pushbuttons for ADA compliance. SUE services were included to aid in the location and identification of the utilities within the vicinity of the intersection.

Main Gate and Commercial Gate Planning Charette, USACE Mobile District, Patrick Air Force Base, FL. 2018 – 2019. Civil Engineer

Participated in planning charrette and prepared concept drawings (10%), specifications, and cost estimates for the demolition of the existing Main Gate. The new Entry Control Facility (ECF) includes a new 2,100 SF Visitor Center, 450 SF guard house, 900 SF vehicle inspection facility and 49 SF guard kiosk. USACE decided to move forward with the design-build criteria package (30% design) of the Main Gate. Work included associated paving along with all applicable signage, earthwork, handicap accessible sidewalks, parking, stormwater management, and utility infrastructure modifications. Project must comply with DoD antiterrorism/force protection requirements per unified facilities criteria and current AT/FP standards. Size: 3,500 SF. Cost: \$10.4M (est construction)

Emergency Management and Mitigation

Superstorm Sandy Port Authority New York/New Jersey (PANYNJ) Facility-wide FEMA 406 Mitigation Assistance, NY. 2013 – 2014.

Project Engineer on a team of engineers covering multiple disciplines that worked to identify FEMA 406 Mitigation opportunities at sixteen of the Port Authority's facilities. This included a preliminary analysis of the FEMA 406 Opportunities followed by a mobilization of our team of engineers to perform site visits, develop FEMA 406 scopes of work, create opinions of construction cost, and negotiate with FEMA for the accepted mitigation included in the Port Authority's PWs. Sites included LaGuardia, JFK, and Newark Airports; New York Brooklyn Piers, Red Hook Container, and Howland Hook Marine Terminals; New Jersey Port Newark, Port Elizabeth, Port Bayonne, and Port Jersey South Marine Terminals; and Holland Tunnel. Role consisted of compiling recommendations for multi-discipline flood mitigation measures, reviewing the final scope of the proposed work and coordinating the development of the engineer's opinion of cost.

Governor's Commission on Oil Spill Response, FL. 2012 – 2013. Researcher/Writer.

Assisted in research on various aspects of the Deepwater Horizon Oil Spill response and drafted reports to assist the Governor's Commission in understanding more fully the Incident Command System as well as overall lessons learned by responding agencies relevant to oil spill response. Participated in meetings with affected local governments and responding agencies to more fully understand the complexities apparent in an oil spill response effort. Provided technical support and insight during commission meetings.

Other – Natural Resource Habitat Management

Rabbit Island Restoration, Calcasieu Parish, LA. 2013 – 2014.

Project Engineer on a 200-acre island restoration project designed to elevate the existing island above flood levels which regularly impact nesting habitat for Eastern Brown Pelicans. Role included the study of existing island topography and tidal conditions to determine the ideal grading for the site which will increase the available nesting area for the birds. Proposed fill material to be used will be dredged from the local shipping channel and dewatered within the confines of the site. A temporary levee along the entire perimeter of the island was designed to contain the dredged fill material during the dewatering process. Role also included the preparation of bidding documents as well as technical specifications.

Continuing Services, Conservation Park, Panama City Beach, FL. 2011 – 2014.

Project Engineer involved in conservation work at the Panama City Beach Conservation Park. Work included the preparation of bidding and contract documents for Silviculture restoration activities including prescribed burning and planting of native species to restore the park to its natural state prior to use as a tree plantation. Oversight was provided

during planting and burning operations to ensure contractor's work complied with the contract documents. Aided in updating the management plan for the Park with information related to involvement in the project.

Madera County Vernal Pools, Caltrans District 6, CA. 2009 – 2010. Designer.

Assisted in design and preparation of the PS&E package for the design and construction of vernal pools. This project will provide the opportunity to preserve, enhance, and create vernal pool habitat on a 195-acre parcel, located in the County of Madera, along the east side of Route 41 north of Avenue 12 and contains numerous vernal pools, and swales. Primary responsibilities included AutoCAD support and calculations for determining the size and location of individual pools.

Other – Water Resources and Utility Engineering

Sunburst Water Treatment Plant Barrier Wall, City of Clermont, FL. 2018 – 2020. Project Manager.

Construction of approximately 900 LF of privacy wall along the eastern side of the treatment plant. Constructed a 12- foot wall to provide additional screening of the plant from neighboring residential development. Tetra Tech performed survey, design, bidding, and construction administration services. Construction was performed Spring 2020.

Cypress Street Outfall Regional Stormwater Improvements, Design-Build Partnership with Woodruff and Sons, Inc, City of Tampa, FL. 2018-Ongoing.

Project Engineer for stormwater and roadway design. Design of 7,500 LF of box culvert, varying in size from 5'x6' to twin-8'x8', to implement a regional stormwater conveyance system to reduce flooding within a 220-acre basin. Project included secondary stormwater collection and conveyance, as well as 6,500 LF of 36-inch distribution watermain, 9,600 LF of watermain relocations and improvements, 5,600 LF of wastewater relocations and improvements, and roadway improvements for the length of the corridor. Performed hydrologic and hydraulic analysis of the project area, design of 2,700 LF of cycle track, and 15,000 LF of sidewalk improvements, low-impact development improvements (baffle boxes, pervious pavement, and swales), design of utility improvements, coordination with utility agency owners, as well as preparation of construction documents, obtaining of SWFWMD ERP, FDOT, and NPDES NOI permits, and construction administration services. Mr. Vanderwalker also provided MOT services.

235th Street Pump Station, New York City Department of Environmental Protection, New York, NY. 2016-Ongoing. Project Engineer for the upgrades to the 235th Street Pumping Station, a combined sewage and stormwater pumping station located in Bronx, New York with a dry weather design flow of 3.5 MGD and a total firm pumping capacity of 10.9 MGD. The existing station is aging and will be completely reconstructed, including all new electrical and controls; a new 20-inch force main; four new dry pit submersible pumps, piping, valves, and gates; new manually cleaned bar rack; demolition and replacement of the existing above grade structure; architectural and structural improvements; new HVAC and plumbing systems; site/civil improvements; and an interim pumping station to be used during reconstruction of the main pump station. Mr. Vanderwalker also provided MOT services.

Stormwater 30% Preliminary Design, Town Fort Myers Beach, FL. 2017 – Ongoing. Project Engineer.

Preliminary design report for the remaining side streets of Fort Myers Beach. Design included the utilization of 2D hydrologic and hydraulic modeling to identify areas of nuisance flooding and deficient infrastructure. These results aided in the development of preliminary designs for stormwater improvements for more than 27,000 linear feet of roadway within the Town right-of-way. Projects were scored based on benefit provided to the residents.

Stormwater Infrastructure Retrofit, Town of Fort Myers Beach, FL. 2016 – Ongoing.

Project Engineer for a preliminary facilities plan (including preliminary basin mapping, alternative analysis, and cost estimating) to assist the Town with stormwater infrastructure effectiveness. The project includes 42,500 LF of drainage pipe, ranging in size from 15- to 48-inches, 58 nutrient-separating baffle boxes, and 71 backflow prevention devices. The retrofit

project has provided a plan for improvements to reduce nuisance flooding, provide treatment within the system prior to discharge, and increase protection from storm surge. Design and construction of this multi-phase project is underway.

Federal

Replace Dormitory 19, USACE Mobile District, Eglin AFB, FL.

The project included the design and construction of a dormitory facility to replace the aged and outdated Dormitory 19. Size: 104,195 SF. Cost: \$44M. Professional Services Completed 2019 / Construction Completed N/A.

Main Gate & Commercial Gate, USACE Mobile District, Patrick AFB, FL.

The project includes the preliminary design for the construction of a main Entry Control Facility (ECF) and Commercial Gate for privately owned and commercial vehicles. Size: 3,500 SF. Cost: \$10.4M. Professional Services Completed 2019 / Construction Completed Pending.



11

YEARS OF
EXPERIENCE***Areas of Expertise***

- Civil Engineering
- Construction Administration
- Preliminary and Final Design
- Permitting
- Procurement
- Project Closeout

Key Training/Certifications

Professional Engineer:
Florida, No. 83331, 2017
New York, No. 104319, 2021

Construction Documents
Technologist (CDT), 2019

Envision Sustainability
Professional (ENV SP),
No. 21794, 2017

FDOT Advanced
TTC/MOT Certification,
No. 58305, 2019

FDEP Qualified Stormwater
Management Inspector,
No. 40808, 2018

Construction Safety and Health,
10-Hour OSHA Training, 2012

Education

BS, Civil Engineering, University of
Hartford, 2012, Summa Cum Laude

EXPERIENCE SUMMARY

Mr. Thatcher has served in the Civil Engineering industry since 2012 as a Senior Project Engineer and Technical Group Leader. His technical background encompasses the complete project lifecycle, and includes project start-up services, subcontractor coordination, conceptual studies, preliminary and final design, permitting, bidding procurement, construction administration services, project closeout, as well as the management of multi-disciplinary teams to meet the expectations of his clients.

RELEVANT EXPERIENCE

Water Resources

Lake Monroe Surface Water Augmentation for the Alexander Avenue Water Management Site, City of Deltona, Deltona, FL. 2020. Project Engineer.

Design of a surface water intake and pumping station from Lake Monroe to the City's Alexander Avenue Water Management Site to treat and supplement for the City's reclaimed water system. Included was the design of a stormwater pond and site elements. Performed hydrologic and hydraulic (H&H) analysis of the project area, design of utility relocations, as well as preparation of construction documents, obtained an Environmental Resource Permit (ERP) through the St. Johns River Water Management District (SJRWMD), bidding procurement, and performed construction administration services.

Ocklawaha River Basin Mitigation Bank Improvements, Maury L. Carter & Associates, Marion County, FL. 2020. Project Manager.

Restoration of a 208-acre site in the Ocklawaha River Basin along the western side of the Ocala National Forest, to create a mitigation banking site. Design included key structural features to enhance and restore the property's hydrology to improve the natural environmental features and make the property conducive to permitting as a mitigation bank. Performed hydrologic and hydraulic (H&H) analysis of the project area, as well as preparation of construction documents, and assistance in obtaining an Environmental Resource Permit (ERP) through the St. Johns River Water Management District (SJRWMD).

Corbin Park Area Stormwater Management Improvements, City of New Smyrna Beach, New Smyrna Beach, FL. 2020. Project Engineer and Client Liaison.

Development of a 2D adICPR 4 hydrologic and hydraulic (H&H) model for this 475-acre watershed within the Corbin Park neighborhood to assess the level of service of the existing stormwater management facilities. Prepared an alternatives analysis to assist the City with planning for future capital improvements to increase the level of service of the study area. Prepared a Preliminary Design Report (PDR) which included preliminary designs of the various alternatives, a water quality assessment to evaluate Green Infrastructure (GI) and Low Impact Development

(LID) Best Management Practices (BMPs) to assist in providing water quality treatment for this drainage area, a benefit versus cost analysis to compare these alternatives, and recommendations for the prioritization of the alternative solutions.

Historic Westside Area Stormwater Management Improvements, City of New Smyrna Beach, New Smyrna Beach, FL. 2020. Project Engineer and Client Liaison.

Development of a 2D adICPR 4 hydrologic and hydraulic (H&H) model for this 520-acre within the Historic Westside neighborhood watershed to assess the level of service of the existing stormwater management facilities. Prepared an alternatives analysis to assist the City with planning for future capital improvements to increase the level of service of the study area. Prepared a Preliminary Design Report (PDR) which included preliminary designs of the various alternatives, a water quality assessment to evaluate Green Infrastructure (GI) and Low Impact Development (LID) Best Management Practices (BMPs) to assist in providing water quality treatment for this drainage area, a benefit versus cost analysis to compare these alternatives, and recommendations for the prioritization of the alternative solutions.

Gus Hipp North Canal Denitrification Improvements, City of Rockledge, Rockledge, FL. 2020. Project Engineer and Engineer of Record (EOR).

Design of 2,900 linear feet of canal dredging to fill with Biosorption Activated Media (BAM) to assist in increasing water quality of surface water discharge into the Indian River Lagoon. Performed a pollutant load analysis utilizing BMPTrains software in order to estimate the approximate load reduction. Project included the preparation of construction documents and obtained an Environmental Resource Permit (ERP) through the St. Johns River Water Management District (SJRWMD).

Stormwater Pump Stations Condition Assessments, City of Hollywood, Hollywood, FL. 2020. Project Engineer.

Condition assessment for the rehabilitation of ten (10) stormwater pump stations, including effects and mitigation measures related to sea level rise and lunar tide events. The assessments included both submersible pump stations as well as enclosed pump stations within buildings.

Drinking Water

Eastern Regional Water Supply Facility Lab Trailer Site Improvements, Orange County Utilities, City of Orlando, Orlando, FL. 2019 – 2020. Project Engineer and Engineer of Record (EOR) for civil design.

Design of site and grading elements due to improvements at the on-site lab trailer. Preparation of construction documents, as well as obtained a County building permit.

Hodge Street Water Production Facility Improvements, Polk County Utilities, Town of Waverly, Waverly, FL. 2018 – 2019. Project Engineer and Engineer of Record (EOR) for civil design.

Design of site, grading, and drainage elements due to improvements at the 2.16 million gallon per day (MGD) facility. Performed hydrologic and hydraulic (H&H) analysis of the project area, preparation of construction documents, as well as obtained an Environmental Resource Permit (ERP) through the Florida Department of Environmental Protection (FDEP), County building permit, and performed construction administration services.

Eastern Regional Water Supply Facility Improvements, Orange County Utilities, City of Orlando, Orlando, FL. 2018 – 2019. Project Engineer and Engineer of Record (EOR) for civil design.

Design of site, grading, and drainage elements due to improvements at the 50.0 million gallon per day (MGD) facility. Performed hydrologic and hydraulic (H&H) analysis of the project area, preparation of construction documents, as well as obtained an Environmental Resource Permit (ERP) through the St. Johns River Water Management District (SJRWMD), County building permit, and performed construction administration services.

Cypress West Water Reclamation Facility Improvements, Toho Water Authority, City of Kissimmee, Kissimmee, FL. 2018. Project Engineer.

Hydrologic and hydraulic (H&H) analysis of the project area and obtained an Environmental Resource Permit (ERP) through the South Florida Water Management District (SFWMD), at the 12.0 million gallon per day (MGD) facility.

Wastewater

Lift Station #5 Replacement Improvements, Utilities Commission, City of New Smyrna Beach, New Smyrna Beach, FL. 2020. Project Manager, Client Liaison, and Engineer of Record (EOR).

Design of a new lift station to replace the existing lift station which was beyond its useful life. Removed lift station #35 from service, which was upstream of lift station #5, and designed approximately 2,300 linear feet of gravity sanitary sewer to discharge to lift station #5. Design of utility improvements, relocation, lift station improvements, and coordination with utility agency owners, as well as preparation of construction documents, obtained a Domestic Wastewater Permit through the Florida Department of Environmental Protection (FDEP), bidding procurement, and performed construction administration services.

Lift Station #12 Replacement Improvements, Utilities Commission, City of New Smyrna Beach, New Smyrna Beach, FL. 2020. Project Manager, Client Liaison, and Engineer of Record (EOR).

Design of a new lift station to replace the existing lift station which was beyond its useful life. Provided a manifold to the existing force main along Canal Street to bypass a secondary gravity system. Design of utility improvements, relocation, lift station improvements, and coordination with utility agency owners, as well as preparation of construction documents, obtained a Domestic Wastewater Permit through the Florida Department of Environmental Protection (FDEP), bidding procurement, and performed construction administration services.

Winkler Road Master Pump Station, Lee County, City of Fort Myers, Fort Myers, FL. 2020. Project Engineer and Engineer of Record (EOR) for civil design.

Design of site, grading, and drainage elements at the proposed booster pump station facility, as well as preparation of construction documents, and obtained a County driveway connection permit.

Quay Assisi Water Main Improvements, Utilities Commission, City of New Smyrna Beach, New Smyrna Beach, FL. 2020. Project Engineer.

Design of 3,900 linear feet of potable water pipe bursting to replace the existing 8" asbestos cement (AC) water main with a 10-inch water main. Design of utility improvements, relocation, and coordination with utility agency owners, as well as preparation of construction documents, bidding procurement, and performed construction administration services.

Lift Station #9 Replacement Improvements, Utilities Commission, City of New Smyrna Beach, New Smyrna Beach, FL. 2020. Project Engineer.

Design of a new lift station to replace the existing lift station which was beyond its useful life. Design of utility improvements, relocation, lift station improvements, and coordination with utility agency owners, as well as preparation of construction documents, obtained a Domestic Wastewater Permit through the Florida Department of Environmental Protection (FDEP), bidding procurement, and performed construction administration services.

Transportation – Roadway

State Road 500 (US 192) Roadway Improvements, Florida Department of Transportation, District 5, City of Melbourne, Melbourne, FL. 2020. Project Engineer.

Design of nearly 10-miles of roadway improvements of State Road 500 from the Osceola County line to Brandywine Lane/Columbia Lane. Improvements include resurfacing, pedestrian improvements, drainage improvements, and utility coordination. Responsible for coordination with utility agency owners. Construction: \$10.7 million.

State Road 520 (W. King Street) Roadway Improvements, Florida Department of Transportation, District 5, Town of Christmas and City of Cocoa, Christmas and Cocoa, FL. 2020. Project Engineer.

Design of nearly 10-miles of roadway improvements of State Road 520 from Yates Road to the Brevard County Line (St. Johns River). Improvements include lane widening, resurfacing, pedestrian improvements, drainage improvements, and utility coordination. Responsible for coordination with utility agency owners. Construction: \$13.4 million.

State Road 500 (US 441) Roadway Improvements, Florida Department of Transportation, District 5, City of Apopka, Apopka, FL. 2020. Project Engineer.

Design of approximately 1-mile of roadway improvements of State Road 500 from County Road 437A (Central Avenue) to Vick Road. Improvements include lane widening, resurfacing, pedestrian improvements, drainage improvements, and utility coordination. Responsible for coordination with utility agency owners. Construction: \$2.4 million.

State Road 519 (Fiske Boulevard) Roadway Improvements, Florida Department of Transportation, District 5, Cities of Rockledge and Cocoa, Rockledge and Cocoa, FL. 2019 – Ongoing. Project Engineer.

Design of nearly 5-miles of roadway improvements of State Road 519 from I-95 to State Road 520 (W. King Street). Improvements include lane widening, resurfacing, pedestrian improvements, drainage improvements, and utility relocations. Responsible for coordination with utility agency owners. Construction: \$6.9 million.



12+

YEARS OF
EXPERIENCE***Areas of Expertise***

- Civil Engineering
- Stormwater Management
- Construction
- Land Development
- Reporting
- Documentation
- Mitigation

Key Training/Certifications

- Professional Engineer,
- New Jersey, No. 24GE05297500
- New York, No. 092397-1
- Texas, No. 136857
- Connecticut, No. PEN.0034419
- Florida, No. 89161
- Certified Floodplain Manager (CFM)
- Envision Sustainable Professional (ENV SP)

Education

ME, Civil Engineering, Stevens
Institute of Technology

BS, Civil Engineering, Rensselaer
Polytechnic Institute

EXPERIENCE SUMMARY

Mr. Oldenburger has over twelve years of experience in civil engineering, stormwater management, land development, and construction. His project experience has focused on projects in throughout the tri-state area, as well as Texas and Florida. He has effectively overseen the performance and preparation of detailed engineering designs for permitting and construction.

His expertise lies in flood resiliency design and feasibility studies, hydraulic analyses and calculations, stormwater management reports, flood studies, soil erosion and sediment control designs and reports, site grading and earthwork analyses, survey, construction coordination and inspections. Over the past few years he has specialized in resiliency and flood mitigation planning in response to hurricanes in New York, Texas, and Florida.

RELEVANT EXPERIENCE

Civil Engineering

FEMA Hurricane Michael Damage Assessment, City of Lynn Haven, FL, 2018-2019.
Mr. Oldenburger is the Project Manager who led a technical team of engineers to assess the damages at the City of Lynn Haven's wastewater and water facilities. The City of Lynn Haven received significant wind and wind-blown debris damage as a result of Hurricane Michael that struck the panhandle of Florida in October of 2018. The project specifically includes documenting damages via site inspections, preparing scopes of repairs, and cost estimating for submission to FEMA for reimbursement.

FEMA Hurricane Michael Hazard Mitigation Planning, City of Lynn Haven, FL, 2020.
Mr. Oldenburger is the Project Manager who led a technical team of engineers to develop plans to hardened the City of Lynn Haven's Fire Station. The City of Lynn Haven received significant wind and wind-blown debris damage as a result of Hurricane Michael that struck the panhandle of Florida in October of 2018. The project specifically includes retrofitting the existing structure with upgraded garage doors and openings to allow emergency personnel to respond quicker follow future storms.

FEMA Hurricane Michael Hazard Mitigation Planning, City of Callaway, FL, 2020.
Mr. Oldenburger is the Project Manager who led a technical team of engineers to develop plans to install generators at four critical facilities and harden a stormwater pond from erosion. The City of Callaway received significant wind damage as a result of Hurricane Michael that struck the panhandle of Florida in October of 2018. The generators will allow these critical facilities to continue operating in the event of loss of power. The banks of the stormwater pond contained trees that were damaged during the hurricane. To prevent future erosion a swale and banks along the pond will be hardened with erosion control matting.

Hurricane Harvey FEMA 406/404, City of Houston, TX. Senior Engineer as part of Tetra Tech's Hurricane Harvey recovery program for the City of Houston (City). The work included preparing flood mitigation strategies for the City's utility infrastructure as well as government buildings. The infrastructure included potable water supply wells and treatment systems, wastewater treatment and pumping stations, and government buildings. The work was completed in compliance with Federal Emergency Management Agency (FEMA) requirements under the 406, 404, and 428 programs. There were 75 total sites for two city departments – Houston Public Works (HPW) and Government Services Department (GSD). There were 56 HPW sites and 19 sites for GSD. The HPW sites included 22 drinking water sites and 39 wastewater facilities. The breakdown of drinking water sites included 4 ancillary buildings, 3 water treatment plants, 15 potable wells. For the wastewater utility, the breakdown included 5 wastewater treatment plants and 34 pump stations. The GSD sites included City Hall, City Hall Annex, Parking Garages, Public Works, and the Municipal Courthouse.

NYC Department of Design and Construction, Red Hook Coastal Resiliency, Brooklyn, NY - 2019 – Current. – Mr. Oldenburger is a Project Manager on a consultant team that is designing the flood protection improvements for this \$100 million coastal resiliency project, which is partially funded by a FEMA's Hazard Mitigation Grant Program. Red Hook area of Brooklyn is categorized as a low-lying, coastal area with the greatest risk of flooding in hurricane-strength storms. Tetra Tech is leading the detailed analysis of the interior drainage system, which is comprised of combine sewers and major interceptors. Because the project is receiving FEMA funding Tetra Tech is leading the benefit-cost analysis, which required a detailed evaluation of finish floor elevations of approximately 1,000 structures.

NYS Governor's Office of Storm Recovery, East Rockaway High School Green Infrastructure Retrofit / East Rockaway, NY. - Mr. Oldenburger was the Project Manager for the planning and design of approximately \$4.1 million in green infrastructure improvements at East Rockaway High School on Long Island. The project includes subsurface storage chambers, synthetic turf, porous paving, and rain gardens. The existing site is constrained on all four sides by school buildings and the Mill River resulting in very limited work areas. The project included a detailed site investigation walk through with a review of existing conditions and a geotechnical investigation (boring) plan and geotechnical testing to determine field and laboratory soil characteristics, soil permeability rates, and depths to groundwater table. The final improvements include five (5) new rain gardens, improvements to the school's turf fields, parking lot improvements, and retrofitting of the existing failing subsurface drain system. Storm surge mitigation improvements are also incorporated into the design that include backflow prevention devices and an elevated bulkhead.

NYS Governor's Office of Storm Recovery, Lister Park Green Infrastructure Improvements, Rockville Centre, NY. Mr. Oldenburger was the Project Manager for the approximately \$3.1 million in site improvements to retrofit the park site with new green infrastructure components intended to reduce discharge and treat runoff before entering the Mill River. The design includes reconstruction of an existing paved parking area and the creation of a new rain garden. The final design minimizes construction costs by utilizing the existing parking area base material and minimizing excavation requirements. The project included a detailed site investigation walk through with a review of existing conditions and a geotechnical investigation (boring) plan and geotechnical testing to determine field and laboratory soil characteristics, soil permeability rates, and depths to groundwater table.

JFK International Storm Surge Flood Mitigation (17 Outfalls), PANYNJ, Jamaica, NY. - Assistant Engineer for Stage I, III, and IV design services for improvements to JFK's drainage system to mitigate damages from storm surge events. The improvements include storm surge devices at 17 different locations around the airport ranging from single 24"x24" flapgate up to triple 16'x18' flapgates. Close coordination and evaluation throughout the design process with the Engineering Department, Storm Mitigation and Resilience Office (SMRO), and JFK international staff was a key piece to the project's success to date.

North Shore Bulkhead Project, City of Long Beach, Long Beach, NY. 2018-Current – Project Manager for the design and construction of a \$12 Million bulkhead replacement project for the City of Long Beach, NY. The city's north shore is almost entirely comprised of bulkheads that are owned by either the city or private residents. The project intends to increase the City's resiliency to flooding in the wake of Superstorm Sandy by installing approximately 6,500 linear feet of new bulkheads along the city owned portions. The scope of work involved bulkhead alignment design, grading, construction impact evaluation, and cost estimating for the project. Mr. Oldenburger coordinated and prepared design deliverables (30%, 60%, 90%, and Bidding) with internal design team members and external subconsultants, as well as the Commissioner of Public Works. Responsible for oversight of construction on behalf of the city by providing construction management and inspection services.

NYS Governor's Office of Storm Recovery, Coastal Marsh Restoration, Town of Hempstead, NY. 2017-Current Mr. Oldenburger was the Project Manager for the approximately \$29 million coastal marsh restoration project. The project consisted of a detailed existing conditions evaluation and 30% design to restore the coastal marshes to provide wave and flood protection benefits to the communities in the lower Mill River basin. In addition to extensive field investigations, the 30% design development project includes, development of marsh improvement features, hydrodynamic modeling to evaluate the flood and wave attenuation performance of the proposed marsh elements, development of 30% design plans, cost estimating and construction schedule development. Also another component of the project consisted of the 30% for an built up overlook area at the south end of Bay Park. The overlook would be a landscape feature that provide areas for the community to see and learn from the coastal marsh restoration.

Flood Mitigation/Resiliency Feasibility Study, Gateway at Battery Park City, New York, NY. 2019. Mr. Oldenburger was the project manager for site/civil feasibility study of Flood Mitigation/Resiliency at the Gateway apartment complex. The study was to evaluate the existing conditions of the facility and provide recommendations for future flood mitigation and resiliency in coordination with the Battery Park City Overall Master Plan.

Wastewater

PS 313, 235th Street Pumping Station, NYCDEP, Bronx, NY. Project Engineer. Facility planning, design and DSDC for the complete overhaul of the 235th Street combined sewer pumping station with a dry weather flow of 1.5 MGD and a total station capacity of 3.5 MGD. The previous 1960's design included two belt-driven pumps with a bypass to handle wet weather flow exceeding pump station capacity. The improvement project for BWT included upgrading outdated equipment and the physical structure which are both in poor condition. Installation of a new 1,100 LF 24-inch force main and 6-inch water main is also included. The services included the preparation of a Facilities Plan Assessment, Engineer's Basis of Design Report, full detailed design submittals (30%, 60%, 90%, and Final), bidding services, and DSDC. Permitting required BWT, BEDC, and BWSO coordination and collaboration as well as Community Board, PDC, DOB, NYCDOT, and NYC Parks approvals.

Rockaway/Nameoke Pumping Station, NYCDEP, Queens, NY. Project Engineer. Facility planning and design services on BWT's behalf for the Nameoke Pumping Station drainage area. The improvements were part of the evaluation to increase station capacity resulting from the Downtown Far Rockaway Urban Renewal Plan (Plan) and DEP's state of good repair program. The proposed Plan focused on investing in the area's existing infrastructure, as well as supporting new commercial and residential developments, to strengthen and revitalize the community. The Plan included a \$91M revitalization investment with sewer and road infrastructure improvements. The Nameoke Pumping Station is located immediately adjacent to the Plan's Urban Renewal Area but was not in operation and for all practical purposes abandoned. DEP initiated the Facility Planning process to determine the scope of work to address the community's needs for the Nameoke Pumping Station.

NYCDEP Inverted Siphon Design Criteria, NYCDEP, New York, NY. Project Engineer. Tetra Tech was retained to develop design criteria for inverted siphons for New York City's storm sewers, sanitary sewers and combined sewers. DEP's drainage design manual previously provided guidelines and procedures, but there were no criteria for inverted siphon design. Tetra Tech first developed step-by-step procedures for calculations and assumptions for transition chambers from upstream to downstream gravity sewer with criteria to determine how weirs and/or diversion structures should be sized. Next, air vent pipe sizing and air jumpers and HGL and EGL were determined. Performance Criteria was then created resulting in more cost-efficient inverted siphons, lower maintenance costs, minimized energy losses, HGLs maintained within the inner top of the sewers on the upstream and downstream ends, reduction or elimination in septic conditions, and prevention of backwater effects in upstream sewers. Lastly, Tetra Tech provided a workflow procedure for incorporating inverted siphons in InfoWORKS ICM for each type of siphon; combined, sanitary and storm sewers.

Amended Drainage Plan – Long Island City, NYCDEP, New York, NY. 2020 Mr. Oldenburger is the Project Manager for amending the drainage plan for a portion of Long Island City due to future re-zoning. The project consists of evaluating the existing combine sewer system for the latest design criteria and making recommendations for upgrading the sewer system. In addition, analysis for a potential high-level stormwater system is included to determine if drainage can be diverted away from the interceptor and discharge directly to the East River.

Industrial

PSE&G, Overhead Electrical Transmission Projects, NJ. - Mr. Oldenburger was the Senior Project Manager for the engineering and permitting of Flood Hazard Areas and Soil Erosion & Sediment Control. The projects involve complete reconstruction of the overhead transmission towers for over 50 miles of existing right-of-ways. The projects included a detailed site investigation walk through with a review of existing conditions and research of FEMA and NJDEP flood mapping. In addition, detailed hydrologic and hydraulic modeling was utilized to quantify impacts of new towers in Flood Hazard Areas. NJDEP Flood Hazard Area Control Act Rules were utilized for the design and permitting.

38 Metropolitan Avenue DOB Permitting, Consolidated Edison, Inc., Brooklyn, NY. 2019 - Mr. Oldenburger was the Project Manager for the design and NYC Department of Building (DOB) permitting of temporary and permanent structures at Consolidated Edison, Inc.'s (Con Ed) 38 Metropolitan Avenue property in Brooklyn. The site required the construction of temporary construction fencing, as well as permanent fencing installation. Both of these actions required coordinating with a permit expeditor, Con Ed, and contractors to acquire the necessary permits for the DOB.

Solid Waste

Anchorage Central Transfer Station, Solid Waste Services, Anchorage, AK. 2019-Current. Mr. Oldenburger is the Project Engineer for the civil design of a new central transfer station for the Municipality of Anchorage. The project is a top priority of the municipality to maximize operational potential of the departments existing and future assts to extend the remaining life of the existing Anchorage Regional Landfill. The proposed state-of-the art facility will provide safe, efficient, and user-friendly for residents and collection agencies. The project consists of a complex of multiple buildings on an approximate 27-acre parcel. The proposed site is designed to incorporate a split-level tipping floor and stringent stormwater regulations.



17 YEARS OF
EXPERIENCE

10+ DISASTERS

Areas of Expertise

- Disaster Debris Management
- Right-of-Way Debris Removal
- FEMA Compliance Monitoring
- Supervision of Field Operations
- Risk Management
- Regulatory Compliance

Key Training/Certifications

OSHA 40-Hour HAZWOPER

ICS 100

ICS 200

Education

Louisiana State University
B.S., Business Administration

EXPERIENCE SUMMARY

Mr. Will Barton has served on various projects throughout the country in recent years. Through his work at Tetra Tech, Mr. Barton has developed an extensive understanding of federal, state, and local regulations, protocols, processes, and guidance with respect to homeland security response, and recovery. **Throughout his career, Mr. Barton has worked with the USDA Natural Resources Conservation Service on issues involving debris in waterways after natural disasters, including managing waterway and drainage lateral debris projects for multiple clients.** Most recently, after the impact of Hurricane Ian on the Florida coast, Mr. Barton was deployed as a regional manager to oversee multiple projects, including waterways debris removal in Sarasota County, Florida totaling 3,560 CYs.

In response to Hurricane Irma, Mr. Barton served as the project manager for the waterways debris removal program in Collier County, Florida totaling more than 57,000 CYs of debris. In support of Calcasieu Parish, Louisiana after Hurricane Laura, Mr. Barton's team has monitored the removal of debris from 1,700 miles of waterways and drainage water systems totaling 1.2 million CYs of drainage lateral debris.

Mr. Barton is also a trusted Information Security Advisor and Information Technology Executive, with 17+ years' experience in both the enterprise and financial institution space. He has excellent team building skills, and knowledge of FFIEC and HIPPA regulations as they pertain to security compliance.

RELEVANT EXPERIENCE

Regional Project Manager (September 2022- Present)

Various Clients | Hurricane Ian

Following the impact of Hurricane Ian on the Florida coast, Mr. Barton was deployed as a regional manager to oversee multiple projects in the Sarasota area, including waters. Mr. Barton coordinated staff training for multiple projects, oversaw all aspects of day-to-day operations, and serves as the primary point of contact for client, staff, and contractors.

Project Manager (September 2021- Present)

Calcasieu Parish Policy Jury, LA | Hurricane Laura

Hurricane Laura resulted in catastrophic damage to Southeast Louisiana in September 2020, in the middle of an extremely active hurricane season. Mr. Barton serves as Project Manager of the drainage portion of work, in charge of overseeing a team that monitored the removal of debris from 1,700 miles of waterways and drainage water systems. In total, there has been 1.2 million CYs of drainage lateral debris monitored and 1,315 miles of drainage laterals cleared.

Project Manager (May 2018 – September 2018)

Collier County, FL | Hurricane Irma

In May of 2018, Mr. Barton served as the project manager for a Collier County waterways debris removal program to address debris in waterways that was a result of Hurricane Irma.

Operations Manager (October 2016 – July 2017)

Hilton Head Island, South Carolina | Hurricane Matthew

In October 2016, the Town took a serious blow as the eye of Hurricane Matthew passed 20 miles to the east. Hurricane Matthew's heavy rains caused power outages, flooding, and extensive damage making parts of the island inaccessible by vehicle. Among many tasks, Mr. Barton is responsible for verifying that monitors retain their training and will respond to issues as they arrive in the field, as well as the management of locally hired additional supervisors and field monitors, project timeline, and current tasking. **Mr. Barton oversaw the removal of over 2.1 million cubic yards of debris.**

Beaufort County, South Carolina | Hurricane Matthew

Also after Hurricane Matthew hit, Mr. Barton supported Beaufort County's recovery efforts that included waterway debris removal.

Regional Project Manager (August 2021- Present)

Various Clients | Hurricane Ida

Immediately following the impact of Hurricane Ida on the Louisiana Gulf Coast, Mr. Barton was deployed as a regional manager to oversee the successful initiation of multiple engagements in Eastern Louisiana. Mr. Barton coordinated staff training for multiple unique activations, liaised with Tetra Tech logistics to the appropriate supply of assets and equipment were available immediately and worked with Tetra Tech's health and safety managers to develop unique health and safety plans for each unique activation.

Debris Group Supervisor (November 2020 – July 2021)

Cal Recycle – Northern Branch

Mr. Barton worked with CalRecycle as debris group supervisor to outline debris removal and property assessment in six counties including Butte, Siskiyou, Trinity, Shasta, Plumas, and Placer Counties. Managed property assessments, debris management site oversight, coordinated with debris removal contractors. Provided project management for 150 personnel. Weekly meetings with CalRecycle and CalOES to further define scope and outline progress. The project included 1700 properties.

Regional Project Manager (October 2020 to November 2020)

Various Clients | Hurricane Delta

Immediately following the impact of Hurricane Delta on the Louisiana Gulf Coast, Mr. Barton was deployed as a regional manager to oversee the successful initiation of multiple engagements. Mr. Barton managed all field operations including staff hiring, training and scheduling, truck certification, debris collection and disposal monitoring and public communication.

Project Manager (April 2020 – July 2020)

City of Chattanooga, TN | Tornado

Mr. Barton worked with the City of Chattanooga and USACE in response to one of the largest tornado outbreaks in the state's history in a turn-key recovery effort. He coordinated with debris removal contractors, provided debris management oversite, and managed a large park debris removal program.

Operations Section Chief (January 2019-March 2020)

Camp Fire, CA – CalRecycle

Mr. Barton served as an Operations Section Chief for the largest wildfire in California State History. In his role as Operations Section Chief, Mr. Barton served as a conduit between State agencies, Tetra Tech and Debris Removal Contractors. Mr.

Barton had purview over the day-to-day activities of 150 employees and oversaw the management and documentation from the safe and eligible remediation of 3500 fire damaged and destroyed properties.

Field Project Manager (November 2018-December 2018)

Early County, Georgia – United States Army Corps of Engineers (USACE)

Mr. Barton served a lead field project manager for the Early County, Georgia USACE mission to remove debris that was a result of Hurricane Michael in the State of Georgia. He was responsible for the field supervisor, dispatch, and quality assurance/quality control of field quality control monitors that documented debris removal efforts.

Deputy Operations Section Chief (September 2018 - November 2018)**Carr Fire, CA – CalRecycle**

Mr. Barton is currently serves as a Deputy Operations Section Chief supporting the oversight of debris removal from nearly 1300 structures following the September 2018 Carr Fire in Shasta County, CA.

Lead Field Manager (November 2017 – February 2018)**Sonoma County, CA | NORCAL Fires**

In October of 2017, more than 250 wildfires erupted and burned throughout Northern California (NORCAL). Due to the scale and severity of the fires, the United States Army Core of Engineers (USACE) was tasked with the assignment of the debris removal mission. USACE selected three prime contractors to work in the three fire damaged regions and Tetra Tech provided the documentations services for all three contractors. Mr. Barton served as a Lead Field Manager for the northern region and was responsible for the management and implementation of *RecoveryTrac*™ Automated Debris Management System (ADMS) to document debris removal efforts. He worked closely with our southern region, Lead Field Manger, Mr. Charles Cabrera to oversee field operations.

Regional Project Manager (August 2017 – November 2017)**Broward County | Hurricane Irma**

Eight contracts were activated throughout Broward County following Hurricane Irma. Mr. Barton was assigned to the region to oversee the project managers and their programs. As the senior manager overseeing debris removal operations that spanned a region of over 1 million residents, Mr. Barton's primary responsibilities included overseeing 16 separate debris hauling contracts, proper segregation at disposal sites used by multiple municipalities, data and reporting integrity, staffing and training.

Task Force Leader (September 2016 – October 2016)**CalRecycle | Erskine Fire Remediation**

In 2015 and 2016, El Niño caused dry conditions resulting in above-normal wildfire danger in California. The Erskine fire was a wildfire that began on June 23, 2016 in the Lake Isabella area of Kern County. The Erskine fire was the second-most destructive fire of the California wildfire season that year, burning nearly 50,000 acres, and destroying over 100 buildings. Mr. Barton was responsible for the quality control of debris site/tower monitors, field coordinators, and project inspectors and ensuring that all documentation captured is compliant for reimbursement during debris removal operations.

Data Manager (August 2016 – September 2016)**Ascension Parish, Louisiana | Severe Storms and Flooding**

In August 2016, prolonged rainfall in southern Louisiana resulted in catastrophic flooding that submerged thousands of houses and businesses. As data manager, Mr. Barton was responsible for reporting and quality assurance/quality control of all automated debris management system (ADMS) documentation in the field along with storing the documentation in preparation for future audits. Mr. Barton was responsible for validating documentation and metrics being reported as accurate and on-schedule.