Tetra Tech, Inc

Bid Contact **Betty Kamra**
sandra.fajardo@tetratech.com
Ph 321-441-8518

Address **2301 Lucien Way, Suite 120**
Maitland, FL 32751

Item #	Line Item	Notes	Unit Price	Qty/Unit		Attch.	Docs
12527-825--01-01	Item 1: Disaster Debris Management, Cost Recovery, Project Management and Other Support	**Supplier Product Code:** **Supplier Notes:** See attached file.	**First Offer - $3,179,400.00**	1 / job	**$3,179,400.00**	**Y**	**Y**

Lot Total **$3,179,400.00**

Supplier Total **$3,179,400.00**

Tetra Tech, Inc

Item: **Item 1:Disaster Debris Management, Cost Recovery, Project Management and Other Support**

Attachments

Tetra Tech Proposal RFP 12527-825.pdf

PROPOSAL

Disaster Debris Management, Cost Recovery, Project Management and Other Support Services (RFP #12527-825)

City of Fort Lauderdale, FL

TETRA TECH

complex world | CLEAR SOLUTIONS™

November 2021

November 17, 2021

Ms. Laurie Platkin, NIGP-CPP, CPPB
Senior Procurement Specialist
City of Fort Lauderdale Procurement Division
100 N. Andrews Avenue, 619
Fort Lauderdale, FL 33301

Subject: Disaster Debris Management, Cost Recovery, Project Management and Other Support Services (RFP#12527-825)

Dear Ms. Platkin and Members of the Evaluation Committee,

Tetra Tech, Inc. (Tetra Tech) submits the enclosed proposal in response to the City of Fort Lauderdale's (City) request for proposals for Disaster Debris Management. Our proposal describes our technical expertise in disaster debris management and our approach to delivering unmatched services to the City:

- **Tetra Tech is a national leader in disaster debris monitoring.** Our team has successfully assisted **over 320 local and state government clients across the nation** with planning for and recovering from natural and human-caused disasters and has extensive experience successfully managing multiple disaster response and recovery operations across the United States simultaneously. Our team has overseen and managed the removal of **over 160 million cubic yards (CYs) of debris**, resulting in excess o**f $8 billion in reimbursable costs** to our clients. We have served as the ground-zero debris monitoring consultant for hundreds of clients affected by our nation's most catastrophic natural disasters.
- **Extensive Experience with the City of Ft. Lauderdale, Broward County, and 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 Broward County and throughout Florida with response and recovery efforts after Hurricanes Charley, Frances, Jeanne, Ivan, Dennis, Katrina, Wilma, and most recently, Matthew, Irma, Michael, and Sally. Following Hurricanes Katrina and Wilma, Tetra Tech's predecessor organization (Beck Disaster Recovery) provided debris monitoring services to the City, and many of the key staff that worked on those recovery efforts remain at Tetra Tech today. Most recently, we assisted Miami-Dade County with debris operations following the Surfside Condominium collapse. Additionally, we have **over 900 staff across 24 offices throughout Florida, including our Response and Recovery Division headquarters in Maitland.**
- **Strong Beach, Marine, and Vessel Qualifications and Experience.** Our team has led many of the largest beach and marine debris removal programs in United States history. Our experience includes the removal of hundreds of vessels from the environmentally sensitive Florida Keys, debris mapping utilizing our proprietary side scan sonar in Lake Borgne following Hurricane Katrina, and marine and vessel debris removal on behalf of the New Jersey Department of Environmental Protection (NJDEP) following Hurricane Sandy. We have also led marine debris removal programs for Escambia County, FL; County of Galveston, TX; and Collier County, FL and more recently Brevard, Lee, Monroe, and Volusia Counties under our FDEP contract following Hurricane Irma.
- **Tetra Tech provides a deeply experienced project management team.** Leading the Tetra Tech Disaster Recovery division is **Jonathan Burgiel, a 35-year veteran of the industry who is a leading expert in disaster debris monitoring** and Federal Emergency Management Agency (FEMA) reimbursement. Additionally, **Will Barton, our proposed project manager,** is an expert in large-scale mobilizations, having served as regional project manager for eight contracts that were activated in Broward County following Hurricane Irma. Mr. Barton has extensive experience in disaster debris project management support under the FEMA Public Assistance (PA) Grant Program.
- **Tetra Tech utilizes its proprietary, best-in-class automated debris management system (ADMS) technology.** Via RecoveryTrac™, our staff can monitor and manage a recovery effort electronically, increasing productivity while decreasing fraud, human error, and cost to the City. RecoveryTrac™ enables real-time collection data and furnishes accurate and timely reporting to City stakeholders. **RecoveryTrac™ is one of only three systems validated by the United States Army Corps of Engineers (USACE)** and is the ADMS preferred by USACE debris contractors.

- **FEMA Reimbursement Experts.** Tetra Tech maintains a staff of reimbursement experts who have recovered millions of dollars of eligible FEMA PA reimbursement costs incurred by our clients. In support of the City's disaster debris program, Ms. Allison McLeary will apply her 18 years of program administration and policy expertise to facilitate procedural and data compliance with FEMA requirements. **As the former Recovery Bureau Chief of the Florida Division of Emergency Management, Ms. McLeary offers direct, senior-level experience administering grant programming in coordination with federal agencies.** Ms. McLeary, along with other Tetra Tech disaster recovery experts, have assisted communities after disasters with issues such as PA reimbursement costs, long-term community recovery planning, and hazard mitigation program implementation.
- **Immediate Response Capability to Meet the City's Needs.** With disaster response and recovery experts located throughout the state, Tetra Tech can stage a full-scale mobilization in the City within hours of a disaster. Our team has never failed to respond to a client's needs, providing each community with a dedicated project team. In 2017, **Tetra Tech successfully deployed more than 6,000 field staff throughout the country** to respond to clients affected by Hurricane Irma in Florida, Hurricane Harvey in Texas, Hurricane Maria in Puerto Rico, and multiple wildfires in California. Our simultaneous response to several disasters is proof that we have the staff, resources, and expertise to respond to the City's post-disaster needs. Tetra Tech stands ready to work with the City as a trusted partner who will respond immediately and provide high-quality services throughout the engagement.
- **Full-Service Disaster Recovery Firm.** Tetra Tech is the only firm in the country that can provide FEMA reimbursement and disaster grant support combined with engineering capabilities to offer full-service disaster support solutions. Whether it is helping the City obtain reimbursement from FEMA for disaster-related costs, obtaining additional disaster grants to pay for mitigation projects that become available, or developing cost estimates and bid specs for damaged assets, Tetra Tech is ready and able to support the City in any of its disaster-related needs.
- **Tetra Tech provides a cost-effective solution to recovering communities.** Tetra Tech provides the best value by arming recovering communities with unmatched expertise and reasonably priced hourly rates thanks to advancements in our proprietary ADMS technological capabilities.

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.

Technical Representative:

Mr. Simon Carlyle, Deputy Director
407-803-2525 | 321-441-8501 (f)
simon.carlyle@tetratech.com

Contractual Representative:

Ms. Betty Kamara, Contracts Manager
Phone: (407) 803-2551 | Fax: 321-441-8501
betty.kamara@tetratech.com

Sincerely,

Tetra Tech, Inc.

Jonathan Burgiel
Business Unit President – Tetra Tech Disaster Recovery

Table of Contents

1. Executive Summary

1.1 Business Entity Name and Background

Legal Structure: Corporation | **Years in Business:** 55 | **Proposed Business Relationship:** Prime Contractor

Tetra Tech, Inc. is a leading provider of consulting, engineering, environmental, and technical services worldwide. Founded in 1966, Tetra Tech is one of the leading firms in the nation in the field of disaster management and homeland security, with millions of dollars in revenue coming from contracts in such diverse areas as infrastructure hardening and protection; disaster recovery; emergency management, planning, and preparedness; community resilience; environmental services, and grant management. Tetra Tech supports government and commercial clients by providing innovative solutions to complex problems focused on water, environment, energy, infrastructure, and natural resources. **We are a global company with over 20,000 employees** that is Leading with Science® to provide innovative solutions to complex problems for our public and private clients.

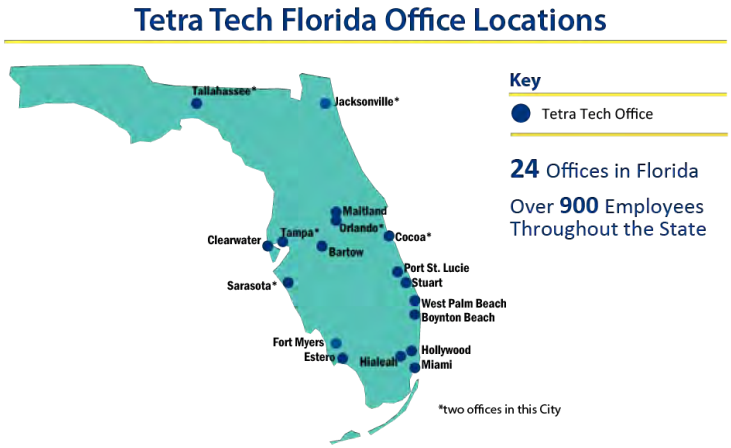
Tetra Tech's Disaster Recovery Division is a national leader in the field of disaster management. Our team offers deep understanding of the Federal Emergency Management Agency (FEMA), Federal Highway Administration (FHWA), and other regulatory agencies' policies and procedures. We have worked closely 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 has obtained over $8 billion in reimbursement funds for our clients from these federal agencies and* our team has successfully managed the removal of and reimbursement for over *160 million cubic yards (CYs) of debris as well as the demolition of over 12,500 uninhabitable residential and commercial structures*.

Our team has provided disaster management, recovery, and consulting services to hundreds of state and local government agencies since 2001. These services have included environmental permitting; monitoring of debris collection, hazardous tree programs, debris management sites (DMS), and specialized debris missions; fire damage restoration; contractor invoice reconciliation; and federal grant reimbursement support. Our team also maintains strong relationships with many of the lead federal officers, state agency leadership, local governments, and other staff.

1.2 Office Locations

Tetra Tech maintains 450 offices worldwide, however, *Florida is our home state, where many of our principal and senior staff reside.* We are proud of our work in Florida, and we want to be known in our hometowns for providing excellent service to our communities. With 24 offices throughout the state, including our disaster recovery headquarters and fully stocked warehouse in Central Florida, Tetra Tech is mere hours away to mobilize rapidly to our clients throughout the state. A summary of offices that will manage the City's project is included below.

Local Office	4601 Sheridan Street, Suite 212, Hollywood, FL 33021
Disaster Recovery Headquarters	2301 Lucien Way, Suite 120, Maitland, FL 32751



1.3 Summary of our Proposal

Our Qualifications

Tetra Tech has performed more debris monitoring services in the state of Florida than any other firm. Our team has responded to every major disaster in Florida since 2001. In response to these events, our team has *overseen 141 projects amounting to over 60 million CYs of debris across the State*. Due to our vast experience, we have become experts in Florida's unique needs disaster recovery needs, including private property debris removal (PPDR), waterways, and beach projects.

Over the course of working with hundreds of local and state governments on disaster debris management projects, our team has developed a deep understanding of FEMA, FHWA, NRCS, and other reimbursement and regulatory agencies' policies and procedures. Our efforts allow clients to maintain their focus on continuing daily operations while relying on us to oversee the management of debris removal operations in compliance with programmatic guidelines and procedures. Our understanding of requirements for eligibility, documentation, and reimbursement has helped our clients obtain **over $8 billion in reimbursed costs.**

Our team is a national leader in providing management and support documentation for all facets of the debris removal monitoring industry, including special disaster recovery program management services such as coastal disaster recovery operations. We have assisted clients with flood damage, beach and reef erosion, sand displacement, private property devastation (requiring structure demolition and/or vegetative debris removal), and inland waterway disruption in the wake of a large storm. Tetra Tech has experience providing these and other specialty services to our clients throughout the Southeastern U.S. and has extensive FEMA reimbursement experience, including past waterway experience working with the Florida Department of Environmental Protection (FDEP).

Additionally, Tetra Tech has broad-based expertise with environmental issues, hazardous materials and waste management and compliance assurance spanning more than 30 years for both private and public-sector clients. *Additional information about our experience and qualifications is included in Section 2 of this proposal.*

Our Staff's Capabilities and Experience

With a team of over 300 dedicated disaster recovery and grant specialists, supported by more than 21,000 other professionals working in over 100 disciplines, Tetra Tech is one of the leading firms in delivering disaster response and recovery and community resilience services. Tetra Tech staff have the experience, expertise, and resources to service public and private sector clients alike through the entire continuum of addressing the devastating impacts of manmade and natural events including preparedness, mitigation, response, and recovery.

Our team has managed projects in response to every hurricane making landfall in the United States since 2004. Our staff members have successfully managed the removal of and reimbursement for over **160 million cubic yards (CYs) of debris as well as the demolition of over 12,500 uninhabitable residential and commercial structures.** Our team has monitored and obtained FEMA, FHWA, and NRCS reimbursement on **over 30 debris removal projects in excess of 1 million CYs of debris** and understands the significant resource commitment and effort that is necessary to manage and monitor large-scale debris removal operations for local governments. Our grant management experts have assisted clients with applying for and retaining grant funds even after closeout and audit processes.

Many of the staff selected for the City's project reside in Florida and have a vested interest in seeing the recovery of communities within our State. Our team was also selected due to their vast experience working together in response to the largest disasters in recent history, including several hurricanes affecting Florida. For example, **Will Barton (Project Manager)** served as the regional project manager for eight contracts that were activated in Broward County following Hurricane Irma. Also, **Allison McLeary, JD (Legislative Affairs Consultant)** is the former **Recovery Bureau Chief of FDEM**, where under her management she administered FEMA Stafford Act programs for the State totaling $9.8B over 26 federally declared events. *Additional information about our staff's qualifications is included in Section 2 of this proposal.*

TETRA TECH ORGANIZATIONAL CHART
City of Fort Lauderdale

Our Methodology

Tetra Tech has carefully reviewed the scope of work requested in the City's request for proposals (RFP) and can assure the City that we have the extensive experience, understanding, and knowledge of the region and the State of Florida to successfully perform all aspects of the scope of work. We are aware of the magnitude and importance of organizing and directing the necessary resources to define and carry out the tasks associated with the scope of work, and we are committed to providing a consistent and coordinated team to perform these services upon activation. As demonstrated by our successful history of working with Broward County and Florida clients over the last 15 years, our project team will dedicate themselves to the City's needs throughout the year, not just during times of activation. Tetra Tech's methodology to drive a successful project for the City, includes:

Past Experience and Relationships in Broward County: Our unique understanding of the City's infrastructure and operational needs following a disaster, as demonstrated by our previous experience providing disaster debris monitoring services for the City of Ft. Lauderdale and within Broward County following multiple hurricanes.

Strong Beach, Marine, and Vessel Removal Expertise: Our team has led many of the largest beach and marine debris removal programs in United States history.

Immediate Response Capabilities: Tetra Tech has disaster recovery personnel and 22 offices throughout the state and utilizes an immediate response staffing and logistics plan that follows the Incident Command System (ICS) structure, allowing City to return to the business of running day-to-day operations.

Project Transparency and Real-time Reporting: Our proprietary ADMS technology, RecoveryTrac™, provides detailed reporting systems and mapping capabilities that are available in real-time to the City and tailored to the City's data needs.

Maximum Reimbursement for the City: Tetra Tech's stringent quality assurance program and adherence to reimbursement agency requirements for eligibility, documentation, and reimbursement that will help City receive and retain the maximum reimbursement allowed following a disaster. *Additional information is included in Section 3 of this proposal.*

2. Experience and Qualifications

Firm History

Tetra Tech is a leading provider of consulting, engineering, environmental, and technical services worldwide. Founded in 1966, Tetra Tech is one of the leading firms in the nation in the field of disaster management and homeland security, with millions of dollars in revenue coming from contracts in such diverse areas as infrastructure hardening and protection; disaster recovery; emergency management, planning, and preparedness; community resilience; environmental services, and grant management. Tetra Tech supports government and commercial clients by providing innovative solutions to complex problems focused on water, environment, energy, infrastructure, and natural resources. **We are a global company with over 20,000 employees** that is Leading with Science® to provide innovative solutions to complex problems for our public and private clients.

Dedicated to helping state and local governments plan for and recover from natural and human-caused disasters, our staff members offer a field-tested and proven methodology for emergency readiness, continuity planning, and disaster recovery. Our team is recognized for its ability to quickly respond to a broad range of emergencies, allowing our clients to return to the business of running their day-to-day operations.

Likewise, our team's understanding of the Federal Emergency Management Agency (FEMA), the Federal Highway Administration (FHWA) (including recent changes), and other reimbursement agencies' requirements for eligibility, documentation, and reimbursement helps clients receive the maximum reimbursement allowed. *Our team has obtained over $8 billion in reimbursement funds for our clients from federal agencies such as FEMA, FHWA, and the Natural Resources Conservation Service (NRCS).* In total, our team has successfully managed the removal of and reimbursement for over *160 million cubic yards (CYs) of debris as well as the demolition of over 12,500 uninhabitable residential and commercial structures*.

25 YEARS OF DISASTER RESPONSE EXPERIENCE

160 MILLION CY OF DEBRIS MONITORED...

28 PROJECTS OVER 1 MILLION CY

... PLUS **6.8M** TONS OF FIRE DEBRIS

90 MAJOR DISASTERS IN 23 STATES & 2 TERRITORIES

2.35M HAZARDOUS TREES & LIMBS REMOVED

22,000 FIRE-DAMAGED STRUCTURE REMOVALS MONITORED

$8B IN POST-DISASTER GRANTS MANAGED

10,000+ PROJECT WORKSHEETS (PWs)

99.8% OF FUNDS RETAINED

650 TOTAL DEBRIS REMOVAL PROJECTS MANAGED

In addition to disaster recovery, Tetra Tech offers a diverse suite of solutions to complex problems in water, environment, infrastructure, resource management, energy, advanced data analytics, and more. In all, Tetra Tech has dedicated problem solvers and innovators from 60 disciplines collaborating on innovative projects worldwide.

1. Expertise and Past Performance

55	25	$8B	300+
Years in Business	Years in Disaster Recovery	Reimbursed to Clients	Clients Nationwide

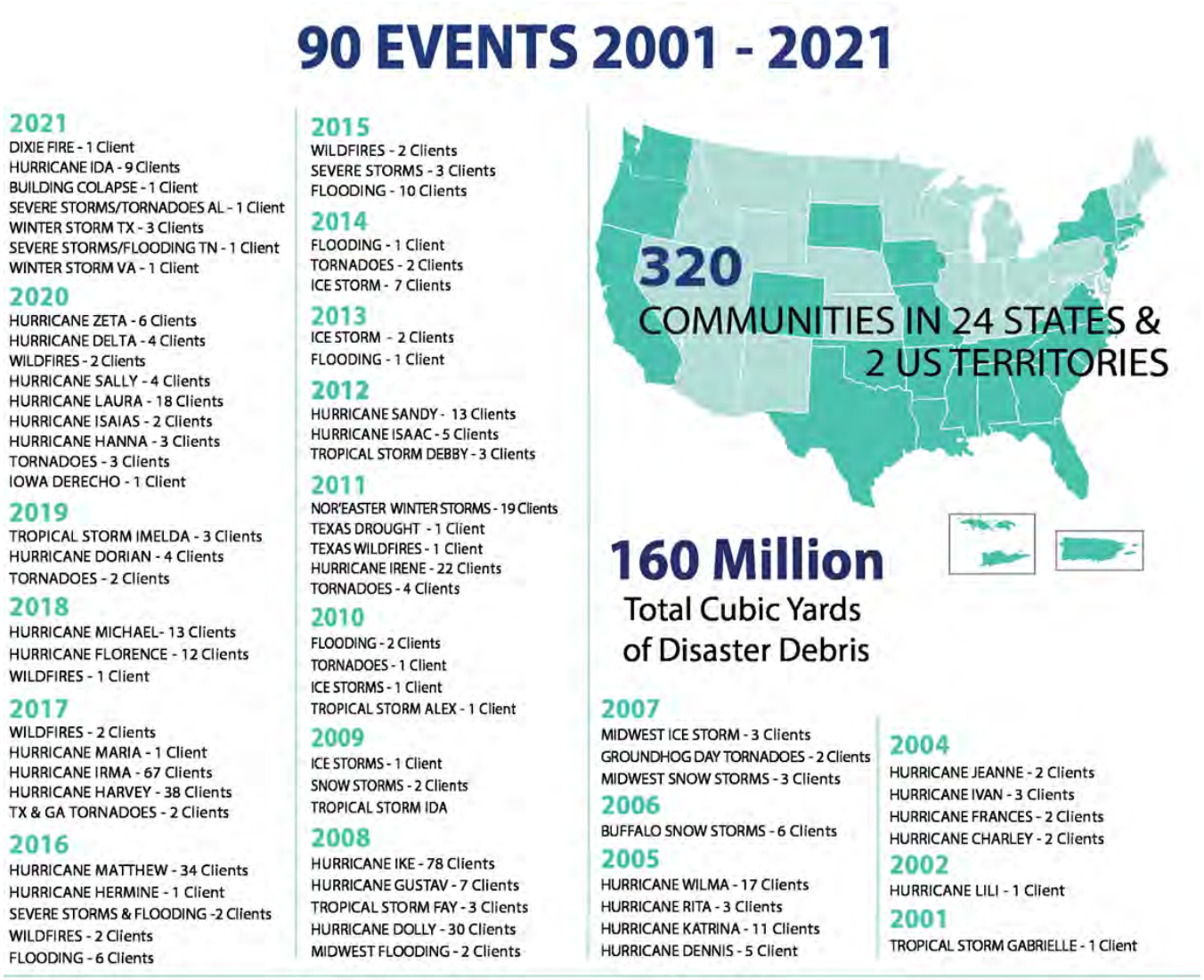
Tetra Tech Disaster Recovery is a national leader in the field of disaster management. Our contracts with federal agencies and state and local governments are in diverse areas such as disaster recovery consulting and technical assistance; staff augmentation; community resilience; grant management; and disaster debris planning and preparedness. Our team offers deep understanding of the Federal Emergency Management Agency (FEMA), Federal Highway Administration (FHWA), and other regulatory agencies' policies and procedures. 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.

1.1 Unmatched Debris Monitoring Experience

Our team has provided disaster management, recovery, and consulting services to hundreds of state and local government agencies since 2001. These services have included environmental permitting; monitoring of debris collection, hazardous tree programs, debris management sites (DMS), and specialized debris missions; fire damage restoration; contractor invoice

reconciliation; and federal grant reimbursement support. **Profiles and references from specific projects are featured later in this section. Tetra Tech can provide additional projects and information upon request.**

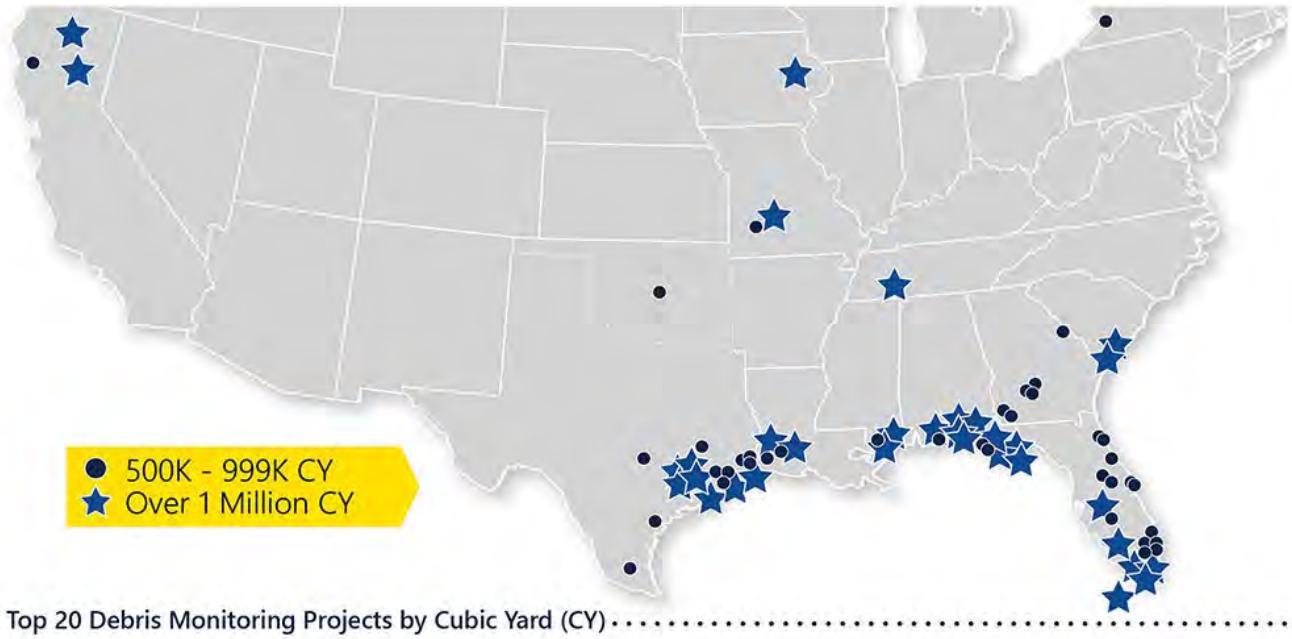
Exhibit 2-1: Experience Matrix (2001–2021)



1.2 Large-Scale Debris Monitoring Experience

Clients count on us to respond in their time of need, and we have never failed to deliver. Our team of debris experts and vast resources allow us to respond to our clients' deployment and mobilization needs, regardless of size, location, or type of disaster. *More than 6,000 Tetra Tech field staff were deployed in concurrent responses to Hurricanes Harvey, Irma, Maria, and the California wildfires in 2017–2018.* Tetra Tech understands the unique aspects and special considerations related to large-scale operations.

Exhibit 2-2: Large Project Experience



Top 20 Debris Monitoring Projects by Cubic Yard (CY)

CalRecycle
Camp Wildfire, 2018

Calcasieu Parish, LA
Hurricane Laura, 2020

Houston, TX
Hurricane Ike, 2008

Escambia County, FL
Hurricane Ivan, 2004

Baldwin County, AL
Hurricane Sally, 2020

Lake Charles, LA
Hurricane Laura, 2020

Miami-Dade County, FL
Hurricane Katrina, 2005

Miami-Dade County, FL
Hurricane Irma, 2017

Collier County, FL
Hurricane Irma, 2017

Gulfport, MS
Hurricane Katrina, 2005

Bolivar Peninsula, TX
Hurricane Ike, 2008

Harrison County, MS
Hurricane Katrina, 2005

Harris County, TX
Hurricane Ike, 2008

Miami-Dade County, FL
Hurricane Wilma, 2005

Polk County, FL
Hurricane Irma, 2017

Hilton Head Island, SC
Hurricane Matthew, 2016

Galveston, TX
Hurricane Ike, 2008

Santa Rosa County, FL
Hurricane Dennis, 2005

Beaufort County, SC
Hurricane Matthew, 2016

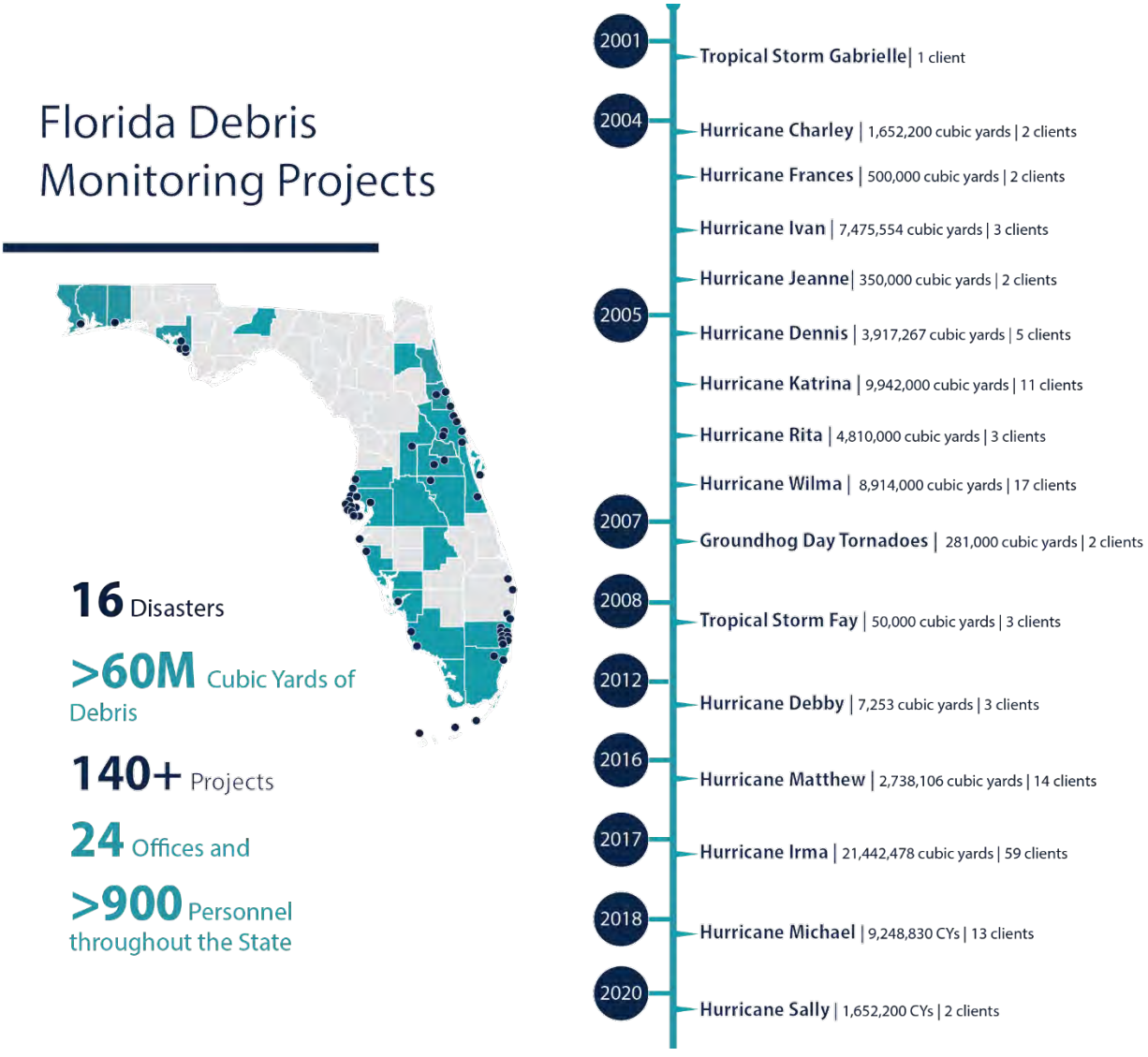
Escambia County, FL
Hurricane Dennis, 2005

1.3 Florida Debris Monitoring Experience

Tetra Tech has performed more debris monitoring services in the state of Florida than any other firm. Our team has responded to every major disaster in Florida since 2001. In response to these events, our team has overseen 141 projects amounting to over 60 million CYs of debris across the State. Due to our vast experience, we have become experts in Florida's unique needs disaster recovery needs, including PPDR, waterways, and beach projects.

Florida is also our home state, where many of our principal and senior staff reside. We are proud of our work in Florida, and we want to be known in our hometowns for providing excellent service to our communities. With 24 offices throughout the state, including our disaster recovery headquarters and fully stocked warehouse in Central Florida, Tetra Tech is mere hours away to mobilize rapidly to our clients throughout the state.

Exhibit 2-3: Florida Debris Monitoring Experience



1.4 Debris Monitoring Experience Over the Past 5 Years

Exhibit 2-4 provides an abbreviated experience matrix for projects conducted over the past 5 years. Tetra Tech can provide specific references and additional information upon request.

Exhibit 2-4: Experience Matrix (2017–Present)

Year	Disaster	Representative Client(s) *Work in Progress	Contract Value	Size (CYs)	Contract Management	Data Management	Collection Monitoring	Disposal Monitoring	Leaner/Hanger/Stump Removal	Private Property Debris Removal	Marine/Waterway	FEMA Reimbursement
2021	**Dixie Fire** Clients Served: 1	**CalRecycle (State Contract)** Alan Zamboanga, (916) 341-6450	Invoices Pending	Ongoing		■	■	■	■	■	■	■
	Hurricane Ida Clients Served: 11	**City of Central, LA**	Invoices Pending	4,273 (ongoing)	■	■	■	■	■	■	■	■
		Iberville Parish, LA Randall Dunn, (225) 776-1109, dunn@ibervilleparish.com	Invoices Pending	789 (ongoing)	■	■	■	■	■	■	■	■
		Tangipahoa Parish	Invoices Pending	103,109 (ongoing)	■	■	■	■	■	■	■	■
	Surfside Condo Collapse Clients Served: 1	**Miami-Dade County, FL** Michael Fernandez, (786) 473-7314, michael.fernandez@miamidade.gov	Invoices Pending	10,264 (tons)	■	■	■	■	■	■	■	■
	Tennessee Severe Storms and Floods Clients Served: 1	**Metro Nashville and Davidson County, TN** Phillips Jones, (615) 533-2377, phillip.jones@nashville.gov	Invoices Pending	804 (tons)	■	■	■	■	■	■	■	■
	Alabama Tornado Clients Served: 3	**Calhoun County, AL**	Invoices Pending	228,268	■	■	■	■	■	■	■	■
	Winter Storms Clients Served: 1	**Virginia Department of Transportation** Stephen Fritton (804) 609-5399, stephen.fritton@vdot.virginia.gov	$3,761,736	471,000	■	■	■	■	■	■	■	■
2020	**California Wildfire** Clients Served: 1	**CalRecycle Northern Branch***	Invoices Pending	408,749 (tons)	■	■	■	■	■	■	■	■
	Hurricane Zeta Clients Served: **7**	**Audubon Society of LA** Cecilie Halliwill, (504) 212-5325 challiwill@audubooninstitute.org	$73,319 (estimate)	9,235	■	■	■	■				■
		City of Diamondhead, MS* Mike Reso (228) 222-4626 Ext. 1802 | mreso@diamondhead.ms.gov	Invoices Pending	132,408	■	■	■	■				■
		City of Gulfport, MS* Wayne MIller (288) 868-5740 | wmiller@gulfport-ms.gov	$124,495 (estimate)	405,561	■	■	■	■				■
		City of Waveland, MS* Mickey Lagasse (228) 467.4143 | mlagasse@waveland-ms.gov	Invoices Pending	132,606	■	■	■	■				■
		City of Slidell, LA Blaine Clancy (985) 646-4270 | bclancy@cityofslidell.org	$32,069 (estimate)	340 hangers/ hazardous trees	■	■	■	■				■
		Dallas County, AL* Heath Sexton (334) 375-1587 | hsexton@dallscounty_al.org	Ongoing	Ongoing	■	■	■	■				■
		Hancock County, MS Scotty Adam (228) 467-0172 | Scotty.Adam@co.hancock.ms.us	Invoices Pending	17,831	■	■	■	■				■
	Hurricane Delta Clients Served: **3**	**City of Youngsville, LA** Sally Angers (337) 857-6925 | SallyAngers@youngsvilleLA.gov	$6,390	7,646	■	■	■	■				■
		St. Martin Parish, LA Heath Babineaux (337) 394-4798 | Hbabineaux@stmartinparish.net	$54,902	30,600	■	■	■	■				■
	Hurricane Sally Clients Served: **4**	**Baldwin County, AL*** Terri Graham (251) 331-4158 | TGraham@baldwincountyal.gov	$6,910,848	3,939,107	■	■	■	■				■
		City of Pensacola, FL John Pittman (850) 435-1894 | Jpittman@cityofpensacola.com	$769,706	574,579	■	■	■	■				■

		Okaloosa County, FL Jim Reece (850) 978-1063 | jreece@co.okaloosa.fl.us	$148,000 (estimate)	30,794	■	■	■	■	■
	Hurricane Laura Clients Served: **17**	**Acadia Parish, LA** Chance Henry (337) 824-7720 | electchancehenry@gmail.com	$100,000 (estimate)	98,595	■	■	■	■	■
		Calcasieu Parish, LA* Theresa Champeaux (337) 540-8094 | tchampeaux@calcasieuparish.gov	$6,195,118	5,939,953	■	■	■	■	■
		City of Lake Charles, LA* Jeff Jones (337) 540-1707 | jjones@cityoflc.us	$2,493,704	3,470,233	■	■	■	■	■
		City of Sulphur, LA* Stacy Dowden (337) 764-8044 | sdowden@sulphur.org	$550,382	675,798	■	■	■	■	■
		Jefferson Davis Parish, LA Renee Hicks (337) 824-4792 | renee@jdppj.net	$42,170 (estimate)	88,440	■	■	■	■	■
		Orange County, TX Leon George (409) 238-9169 | lgeorge@co.orange.tx.us	$934,026	723,064	■	■	■	■	■
		Town of Holden Beach, NC Heather Finnell (910) 842-6488 | heather@hbtownhall.com	$26,171	2,150	■	■	■	■	■
	Hurricane Isaias Clients Served: **6**	**Town of Ocean Isle Beach, NC*** Justin Whiteside (910) 579-3469 | justin@oibgov.com	$47,766	6,966	■	■	■	■	■
		Town of Oak Island, NC Rose Braam (910) 201-8015 | rbraam@ci.oak-island.nc.us	xx	62,394	■	■	■	■	■
	Hurricane Hanna Total CYs: **327,035** Clients Served: **4**	**Hidalgo County, TX** Mr. Judge "J.D." Salinas (956) 318-2600 | jd.salinas@gsa.gov	$706,129	187,135	■	■	■	■	■
	South Carolina Severe Storms and Tornadoes Total CYs: **783** Clients Served: **1**	**Barnwell County, SC** Mr. Roger Riley (803) 541-2013 | rriley@barnwellsc.com	$21,539	783	■	■	■	■	■
	Tennessee Severe Storms and Tornadoes Total CYs: **1,039,455** Clients Served: **3**	**City of Chattanooga, TN** Elizabeth Goss (229) 894-4591 | egoss@chattanooga.gov	$380,079	322,200	■	■	■	■	■
		Hamilton County, TN John Agan (423) 315-3840 | johna@HamiltonTN.gov	$961,480	408,305	■	■	■	■	■
		Metro Nashville and Davidson County, TN Phillips Jones (615) 533-2377 | phillip.jones@nashville.gov	$193,710	308,949	■	■	■	■	■
	Tropical Storm Imelda Total CYs: **73,336** Clients Served: **3**	**Harris County, TX** Ms. Danielle Cioce, MS (551) 427-6581 |danielle.cioce@hcpid.org	$195,526	15,907	■	■	■	■	■
		Jefferson County, TX Patrick Swain (409) 835-8500 | pswain@co.jefferson.tx.us	$208,610	57,429	■	■	■	■	■
	Hurricane Dorian Total CYs: **63,719** Clients Served: **5**	**Colleton County, SC** Carla W. Harvey, PE (843) 782.3104 | Cell – (843) 909-4653 charvey@colletoncounty.org	$21,639	4,272	■	■	■	■	■
		Dorchester County, SC Mr. Mario Formisano (843) 832-0341 | MFormisano@dorchestercounty.net	$135,437	31,294	■	■	■	■	■
	Louisiana Severe Storms and Tornadoes Total CYs: **30,516** Clients Served: **5**	**City of Ruston, LA** John Freeman (318) 245-2398 | jfreeman@ruston.org	$230,000	30,516	■	■	■	■	■
	Alabama Severe Storms and Tornadoes Total CYs: **176,780** Total Tons: **7,262** Clients Served: **1**	**Lee County, AL** Patrick Harvill (334) 737-7011 | Pharvill@leeco.us	$375,000	176,780 (and 7,262 Tons)	■	■	■	■	■

2018	**Hurricane Michael** Total CYs: **10,618,496** Clients Served: **13**	**Lynn Haven, City of, FL** Vickie Gainer (850) 265-2121 ext 112 | vgainer@cityoflynnhaven.com	$3,226,800	1,280,400	■	■	■	■	■
		Callaway, City of, FL Ed Cook (850) 215-6691 | Citymanager@cityofcallaway.com	$1,150,500	1,468,100	■	■	■	■	■
		Parker, City of, FL Rich Musgrave (850) 871-4104 | richmusgrave@cityofparker.com	$508,920	548,800	■	■	■	■	■
		Wakulla County, FL Brandy Raye King (850) 745-7711 | bking@mywakulla.com	$341,704	38,085	■	■	■	■	■
		Franklin County, FL Pamela Brownell (850) 653-8977, ext. 10 | Em3frank@fairpoint.net	$548,949	126,087	■	■	■	■	■
		Albany County, GA Phil Roberson (229) 357-0667 | PRoberson@dougherty.ga.us	$2,008,025	363,000	■	■	■	■	■
		Dougherty County, GA Michael McCoy (229) 431-2193 | MMcCoy@dougherty.ga.us	$2,008,025	207,000	■	■	■	■	■
	Hurricane Florence Total CYs: **1,365,327** Total Tons: **19,889** Clients Served: **15**	**New Bern, City of, NC** Matt Montanye (252) 646-3984 | MontanyeM@newbern-nc.org	$665,351	155,400	■	■	■	■	■
		Craven County, NC Steven Aster (252) 658-7179 | saster@cravencountync.gov	$414,147	59,800	■	■	■	■	■
		Lenoir County, NC Samuel Kornegay (252) 361-1788 | skornegay@co.lenoir.nc.us	$249,918	34,662	■	■	■	■	■
		Fayetteville, City of, NC Jackie Tuckey (910) 433-1854 jtuckey@ci.fay.nc.us	$560,405	134,282	■	■	■	■	■
	Connecticut Tornadoes **Total CYs: 193,222** Clients Served: **4**	**Brookfield, CT** Ralph Tedesco (203) 775-7318 jrtedesco@brookfieldct.gov **New Fairfield, CT** Russ Loudon (203) 312-5628 rloudon@newfairfield.gov	$634,119	175,442	■	■	■	■	■
2017	**California Wildfires (2017-18)** Total Tons: **2,278,740** Clients Served: **4 (6 Wildfires)**	**CalRecycle, CA** Alan Zamboanga (916) 341-6450 | alan.zamboanga@calrecycle.ca.gov	$1,500,000,000	2,278,740 Tons	■	■	■	■	■
	Hurricane Irma Total CYs: **20,113,657** Clients Served: **67**	**Miami-Dade County, FL** Michael Fernandez (786) 473-7314 | michael.fernandez@miamidade.gov	$15,315,654	3,558,943	■	■	■	■	■
		Polk County, FL Jay M. Jarvis, P.E (863) 581-0163 | JayJarvis@polk-county.net	$6,190,877	2,244,330	■	■	■	■	■
		Collier County, FL Dan Rodriguez (239) 252-2504 | danrodriguez@colliergov.net	$5,130,000	4,004,300	■	■	■	■	■
		Miami, City of, FL Mario Nunez (786) 479-4097 | MFNunez@miamigov.com	$3,911,307	540,053	■	■	■	■	■
		Seminole County, FL Jeff Waters (407) 665-2253 | jwaters02@seminolecountyfl.gov	$2,250,000	824,534	■	■	■	■	■
		Lake County, FL Mary Hamilton (352) 253-6006 | mhamilton@lakecountyfl.gov	$1,887,841	355,000	■	■	■	■	■
		Brevard County, FL Euripides Rodriguez (321) 633-2042 | Euripides.rodriguez@brevardfl.gov	$1,292,085	653,953	■	■	■	■	■
		Pinellas County, FL Sean Tipton	$1,759,698	380,000	■	■	■	■	■

		(727) 464-8809 | stipton@co.pinellas.fl.us							
		Holly Hill, City of, FL Antoine Khoury (386) 248-9493 | akhoury@hollyhillfl.org	$115,000	46,876	■	■	■	■	■
		South Daytona, City of, FL Les Gillis, P.E. (386) 322-3080 | lgillis@southdaytona.org	$79,534.00	27,908	■	■	■	■	■
	Hurricane Harvey Total CYs: **5,445,225** Clients Served: **31**	**Corpus Christi, City of, TX** Gabriel Maldonado (361) 826-3165 | gabrielm@cctexas.com	$1,037,930	536, 074	■	■	■	■	■
		Dickinson, City of, TX Connie Nicholson (281) 337-2489 ext. 224 | cnicholson@ci.dickinson.tx.us	$678,086	182,354	■	■	■	■	■
		Fort Bend County, TX Marc Grant (832) 473-2730 | grantmar@co.fort-bend.tx.us	$1,028,474	338,277	■	■	■	■	■
		Friendswood, City of, TX Brian Mansfield (281) 996-3335 | bmansfield@ci.friendswood.tx.us	$747,162	135,957	■	■	■	■	■
		Harris County, TX Danielle Cioce (551) 427-6581 | danielle.cioce@hcpid.org	$3,700,000	1,129,652	■	■	■	■	■
		Houston, City of, TX Joanne Song Yu (832) 393-0484 | Joanne.Song@houstontx.gov	$7,964,528	2,500,000	■	■	■	■	■
		Humble, City of, TX James Nykaza (281) 853-7832 | jnykaza@cityofhumble.net	$128,269	22,737	■	■	■	■	■
		Katy, City of, TX Jason Rivera (281) 391-4796 | jrivera@cityofkaty.com	$127,583	24,000	■	■	■	■	■
		League City, City of, TX Ogden "Bo" Bass, AICP (281) 554-1007 | bo.bass@leaguecitytx.gov	$493,774	116,461	■	■	■	■	■
		Montgomery County, TX Darren Hess (936) 523-3910 | Darren.Hess@mctx.org	$902,000	119,572	■	■	■	■	■
		Nassau Bay, City of, TX Jamie L. Galloway (281) 336-6298 | jamie.galloway@nassaubay.com	$44,250	6,323	■	■	■	■	■
		Pasadena, City of, TX Robin S. Green, Jr., P.E. (713) 475-7836 | rgreen@pasadenatx.gov	$162,944	30,164	■	■	■	■	■
		Seabrook, City of, TX Kevin Padgett (281) 291-5656 | kpadgett@seabrooktx.gov	$26,526	1,592	■	■	■	■	■
	Georgia Tornadoes Total CYs: **920,000** Clients Served: **2**	**Albany County, GA** Phil Roberson (229) 357-0667 | PRoberson@dougherty.ga.us	$2,008,025	380,000	■	■	■	■	■
		Dougherty County, GA Michael McCoy (229) 431-2193 | MMcCoy@dougherty.ga.us	$2,008,025	540,000	■	■	■	■	■

2. Broad Experience Maximizing Federal Grant Programs

Over the course of working with hundreds of local and state governments on disaster debris management projects, our team has developed a deep understanding of FEMA, FHWA, NRCS, and other reimbursement and regulatory agencies' policies and procedures. Our efforts allow clients to maintain their focus on continuing daily operations while relying on us to oversee the management of debris removal operations in compliance with programmatic guidelines and procedures. Our understanding of requirements for eligibility, documentation, and reimbursement has helped our clients obtain **over $8 billion in reimbursed costs.**

Our team has direct experience with federal grant programs, including:

- FEMA PA Program (including Section 406 mitigation and Section 428 alternative procedures program)
- FEMA Hazard Mitigation Grant Program (HMGP, Section 404 mitigation)
- FEMA Hazard Mitigation Assistance (HMA)
- FEMA Individual Assistance (IA) Program
- FHWA-Emergency Relief (FHWA-ER) Program

- FHWA Transportation Investment Generating Economic Recovery Grant
- Natural Resources Conservation Service (NRCS) Emergency Watershed Protection
- U.S. Department of Housing and Urban Development (HUD) Community Development Block Grant Program (CDBG)
- U.S. Treasury Coronavirus Aid, Relief, and Economic Security (CARES) Act and COVID-related funds

For this engagement, Tetra Tech anticipates that majority of reimbursement will be pursued through the FEMA PA Program. Our team holds comprehensive qualifications in working both for and with FEMA. 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.

Tetra Tech is able to maximize FEMA PA disaster debris reimbursement funding for the City based on the following:

- **Procedures Tailored to FEMA:** Our data management and document storage procedures are tailored to facilitate FEMA review and the generation of project worksheet versions throughout the entire project. We incorporate changes or updates to the FEMA PA Program and Policy Guide (PAPPG) into our procedures for field documentation and data management as they occur.
- **Comprehensive Understanding of FEMA Regulations:** Our management team and field staff fully understand FEMA rules and regulations for hand-loaded vehicles; stump, limb, and tree removal at unit rates; volumetric load calls at temporary disposal site locations; and right-of-way (ROW) debris removal eligibility. This allows us to monitor contracts to the smallest detail while concurrently managing and documenting the operation using proven methodologies that maximize FEMA reimbursement.
- **Direct Relationships with FEMA Regional Representatives:** Our team maintains strong relationships with many of the lead federal coordinating officers, debris specialists, Public Assistance (PA) coordinators and 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 disaster-specific guidance and issues.
- **Team of Grant Experts to Assist with Funding and Audits:** 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 for communities.

Our team has worked closely with FEMA and FHWA staff in the determination of debris eligibility, data requirements, project worksheet/detailed damage inspection report development, auditing of documentation, and reimbursement requirements. This includes providing **step-by-step assistance to clients throughout the FEMA reimbursement process.**

Exhibit 2-5: 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
2020	Aiken County, SC	CV19	CRF, PA	60,000						■	■			■			
	Houston, TX	CV19	CRF, PA	404,000,000						■	■			■			
	Palm Beach County, FL	CV19	CRF, PA	261,000,000							■	■					
	Brevard County, FL	CV19	CRF	105,000,000							■			■			

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
	Volusia County	CV19	CRF	96,000,000							■						
	Commonwealth of Massachusetts	DR-4496	PA	200,000,000							■						
	Harris County, TX	DR-4485	PA	200,000,000						■	■	■		■			
	Houston, TX	DR-4485	PA	12,500,000						■	■	■		■			
2019	Harris County, TX	DR 4332	CDBG-DR, CDBG-MIT	1,200,000,000					■	■				■	■	■	
2019	Missouri, State of	DR 4451	PA	2,947,200							■			■		■	■
2019	Missouri, State of	DR 4435	PA	5,664,229							■			■		■	■
2018	Commonwealth of Puerto Rico	DR 4339	PA	60,000,000,000					■	■	■	■	■	■		■	
2018	City of Callaway, FL	DR 4399	PA	27,995,119	■	■	■	■	■	■	■	■	■	■			
2018	City of Lynn Haven, FL	DR 4399	PA	56,348,265	■	■	■	■	■	■	■	■	■	■			
2018	Dougherty County, GA	DR 4400	PA	4,484,174	■	■											
2018	City of Albany, GA	DR 4400	PA	16,814,051	■	■											
2018	Ventura County, CA	DR 4353	PA	100,000,000						■	■	■		■			
2018	Commonwealth of Puerto Rico	DR 4339	PA HMGP	60,000,000,000					■	■	■	■	■	■	■	■	■
2017	City of Houston, TX	DR 4332	PA	2,400,000,000	■	■	■	■	■	■	■	■	■	■			
2017	City of South Daytona, FL	DR 4337	PA	6,000,000			■	■	■	■	■	■	■	■			
2017	Fort Bend County, TX	DR 4332	PA	50,000,000	■	■	■	■	■	■	■	■	■	■			
2017	City of Albany, GA	DR 4294 DR 4297	PA	14,000,000	■	■	■	■	■	■	■	■	■	■			
2017	Dougherty County, GA	DR 4297	PA	12,500,000	■	■	■	■	■	■	■	■	■	■			
2016	South Daytona, FL	DR 4283	PA	1,600,000													
2016	Volusia County, FL	DR 4283	PA	28,000,000	■	■	■	■	■	■	■	■	■	■			
2016	City of Port Orange, FL	DR 4283	PA	16,000,000			■	■		■	■	■		■			
2016	Beaufort County, SC	DR 4284	PA	56,000,000			■	■				■		■			
2015	Richland County, SC	DR 4241	PA HMGP CDBG-DR	4,000,000 8,700,000 23,500,000	■	■	■	■	■	■	■	■	■	■	■	■	
2015	City of Sumter, SC	DR 4241	PA, HMGP	13,000,000	■	■	■	■	■	■	■	■					
2015	Lexington County, SC	DR 4241	PA, HMGP	1,600,000					■	■	■	■					
2015	Dorchester County, SC	DR 4241	PA	3,500,000	■	■	■	■	■	■	■	■					
2015	Montgomery County, TX	DR 4269 DR 4272	HMGP	15,000,000					■	■	■	■					
2015	Austin County, TX	DR 4269 DR 4272	PA	4,000,000	■	■	■	■	■	■	■	■	■	■			
2015	Waller County, TX	DR 4269 DR 4272	PA	4,000,000	■	■	■	■	■	■	■	■	■	■			
2015	Ascension Parish, LA	DR 4277	PA	20,000,000	■	■	■	■	■	■	■	■	■	■			

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
	Walton County, FL	N/A	FMA	522,000						■	■	■					
	Fayette County, GA	DR 4259	PA	3,800,000	■	■	■	■	■	■	■	■	■	■			
2014	City of Napa, CA	DR 4193	PA	2,000,000	■		■	■	■	■	■	■		■			
2014	City of Houston, TX	DR 4223 DR 4269 DR 4272	PA	60,000,000	■	■	■	■	■	■	■	■	■	■			
2013	Boulder County, CO	DR 4193	PA, HMGP	2,000,000			■	■				■					■
2012	New Jersey Dept, of Environmental Protection	DR 4086	PA	30,500,000	■	■	■	■	■	■	■	■	■	■			
2011	Virginia DOT	DR 4023	PA	3,000,000	■	■	■	■	■	■	■	■	■	■	■	■	■
2011	State of Vermont	DR 4022	PA, HMGP	23,000,000	■		■	■	■	■	■	■		■			
2011	State of Connecticut	DR 4023	PA	500,000	■				■	■	■						
2010	Hidalgo County, TX	DR 1931	PA	318,000	■	■	■	■	■	■	■	■	■	■	■		
2009	City of Daytona Beach, FL	DR 1840	HMGP	1,200,000	■	■			■	■	■	■	■	■	■	■	
2009	Volusia County, FL	DR 1840	PA	890,000		■			■	■	■	■	■	■	■		
2009	City of Austell, GA	DR 1858	PA	7,900,000	■	■	■	■	■	■	■	■					
2009	Clark Energy Co-op, KY	DR 1818	HMGP	500,000						■	■			■			■
2009	City of Newport News, VA	DR 1862	PA	280,000	■	■	■	■	■	■	■	■		■			
2009	City of Virginia Beach, VA	DR 1862	PA/SRL	2,000,000					■	■	■	■					
2008	City of Cocoa, FL	DR 1785	PA	200,000					■	■	■	■					
2008	City of Cocoa Beach, FL	DR 1785	PA	15,000					■	■	■	■					
2008	Leon County/ City of Tallahassee, FL	DR 1785	PA	580,000	■					■	■	■		■			
2008	St. Johns County, FL	DR 1785	PA	870,000	■					■	■			■			
2008	Plaquemines Parish, LA	DR 1786	PA	10,000	■	■						■					
2008	Ashburnham Municipal Light Plant, MA	DR 1813	PA	645,000	■		■	■	■	■	■	■		■			
2008	Paxton Light Dept., MA	DR 1813	PA	150,000	■		■	■	■	■	■	■		■			
2008	Princeton Municipal Light Department, MA	DR 1813	PA	9,300,000	■		■	■	■	■	■	■		■			
2008	Sterling Municipal Light Dept.	DR 1813	PA	3,900,000	■		■	■	■	■	■	■		■			
2008	City of Alvin, TX	DR 1791	PA	2,100,000					■	■	■	■		■	■	■	■
2008	City of Angleton, TX	DR 1791	PA	6,000,000					■	■	■	■		■	■	■	■
2008	Cameron County, TX	DR 1780	PA	27,000,000	■	■	■	■	■	■	■	■		■	■	■	■
2008	Fort Bend County, TX	DR 1791	PA	15,300,000	■	■	■	■	■	■	■	■		■	■	■	■

3. Knowledge of Environmental Requirements

Tetra Tech has broad-based expertise with hazardous materials and waste management and compliance assurance spanning more than 30 years for both private and public-sector clients. We have a proven record of helping customers address National Environmental Policy Act compliance, Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)/Superfund Amendments and Reauthorization Act, Resource Conservation and Recovery Act, Toxic Substances Control Act, Occupational Safety and Health Act, and other federal, state, and local regulations in hazardous materials assessment and hazardous waste management.

This expertise has been developed through extensive training and hands-on experience at sites across the United States requiring site investigation, analysis of treatment systems, evaluation of storage and transportation methods, development and implementation of remedial measures, and understanding of and compliance with complex federal and state regulatory requirements.

Tetra Tech has evaluated hazardous materials, waste streams, and operating practices for a full range of clients and developed or updated standard protocols, compliance procedures, and regulatory requirements specific to the operation and materials used and produced. Tetra Tech staff has performed compliance evaluations of numerous types of facilities and industries; conducted Phase I, II, and III site assessments and investigations; performed feasibility studies and treatability studies; consulted on waste storage and management activities; and developed training materials and performed staff training for clients. Our work has included environmentally compliant and historically sensitive demolition programs.

Additionally, the Tetra Tech team has responded to nearly every major disaster debris-generating event that has affected the continental United States. Exhibit 2-6 summarizes some of the environmental issues that we successfully addressed on behalf of our clients. Tetra Tech is familiar with the actions that must be taken to address debris-related environmental issues.

Exhibit 2-6: Tetra Tech's Experience with Environmental Issues

The list below summarizes some of the environmental issues Tetra Tech has successfully addressed.	
Air sampling and monitoring	Hazardous spills
Asbestos Abatement and Disposal	Household hazardous waste removal
Carcass removal and disposal	Lead-based testing
Contaminated ask	Sand quality testing and screening
C&D removal and disposal	Soil screening using XRF
DMS permitting, soil testing, closure and remediation	Waste flow control
Endangered and nongame species	Waterways
E-waste	Wetlands
Freon removal	White goods

4. Knowledge in All Aspects of Disaster Recovery Services

Our team is a national leader in providing management and support documentation for all facets of the debris removal monitoring industry, including special disaster recovery program management services.

Exhibit 2-7: Disaster Recovery and Special Program Management Capabilities

Disaster Recovery Program Management	
Emergency road clearance	Final debris disposal at a landfill or other end use
Curbside debris collection	Conflict and damage resolution
Operation of citizen drop-off sites	Truck certification
Data management and invoice reconciliation	Right-of-entry (ROE) administration
Oversight of debris management sites (DMS)	
Special Programs Management	
Animal carcass removal and disposal	Marine/waterway debris removal
Asbestos abatement	Private property demolition/debris removal

Beach remediation/restoration	Nuisance abatement ordinance administration
C&D debris removal	Saltwater killed tree removal
Creosote piling removal	Sediment dredging and removal
Demolition debris removal	Subsurface storm drain debris removal
Drainage and canal debris removal	Vessel and vehicle recovery
E-waste debris removal	Wetland and parkland debris
Hazardous waste debris removal	White goods and putrescent waste removal
Hazardous tree and stump removal	

4.1.1 Private Property/Right-of-Entry Debris Removal

Our team has administered many of the largest private property debris removal (PPDR) programs in U.S. history. Tetra Tech assists communities with ensuring they have the legal authority via local and state ordinances to enter onto private property. We also assist with preparing submittal packages for FEMA to approve the program, promoting the ROE program with residents, and ensuring the program is properly documented. Included below is a representative sample of our PPDR projects.

Exhibit 2-8: PPDR Experience

Client	Disaster/Year	Public Advertisement	Application Administration	Historical/Environmental Review	Property Survey	Scheduling	Individual Property Debris Tracking	Demolition Program Management	Debris Removal Monitoring	Reduction/Disposal Monitoring	Property Close Out	Data Management
Miami Dade County, FL	Surfside Condo Collapse (2021)					■		■	■	■		■
Bay County, Florida	Hurricane Michael (2018)	■	■	■	■	■	■	■	■	■	■	■
CalRecycle/CALOES Ventura County	Wildfire (2018)	■	■	■	■	■	■	■	■	■	■	■
USACE – Napa County, CA	Wildfire (2017)	■	■	■	■	■	■	■	■	■	■	■
USACE – Mendocino County, CA	Wildfire (2017)	■	■	■	■	■	■	■	■	■	■	■
USACE – Lake County, CA	Wildfire (2017)	■	■	■	■	■	■	■	■	■	■	■
USACE – Sonoma County, CA	Wildfire (2017)	■	■	■	■	■	■	■	■	■	■	■
Dougherty County, GA	Tornado (2017)								■	■		■
Lake County, CA	Wildfires (2015)	■	■	■	■	■			■	■	■	■
Hays County, TX	Flooding (2014)	■	■	■	■	■			■	■	■	■
Boulder County, CO	Flooding (2013)	■	■	■	■	■		■	■	■	■	■
Middletown, Township of, NJ	Hurricane Sandy (2012)					■	■	■	■	■		■
St. John the Baptist Parish, LA	Hurricane Isaac (2012)	■			■	■			■	■		■
Bastrop County, TX	Wildfires (2011)	■	■	■	■	■			■	■	■	■
Comanche Nation, OK	Ice Storm (2009)					■	■		■	■		■
Cedar Rapids, City of, IA	Flooding (2008)			■		■		■	■	■	■	■
University of Iowa	Flooding (2008)			■		■		■	■	■	■	■
Galveston, City of, TX	Hurricane Ike (2008)	■	■	■	■	■	■		■	■	■	■
Terrebonne Parish, LA	Hurricanes Ike (2008)	■	■	■	■	■	■	■	■	■	■	■

Client	Disaster/Year	Public Advertisement	Application Administration	Historical/Environmental Review	Property Survey	Scheduling	Individual Property Debris Tracking	Demolition Program Management	Debris Removal Monitoring	Reduction/Disposal Monitoring	Property Close Out	Data Management
Iberville Parish, LA	Hurricane Gustav (2008)	■	■		■	■			■	■	■	■
New Orleans, City of, LA	Hurricane Katrina (2005)	■	■	■	■	■	■	■	■	■	■	■
Waveland, City of, MS	Hurricane Katrina (2005)	■	■		■	■	■	■	■	■	■	■
Naples, City of, FL	Hurricane Wilma (2005)					■			■	■	■	■

4.1.2 Coastal Restoration

Critical to the recovery of any coastal community following a disaster is the remediation of its beaches. Tetra Tech scientists and engineers work in partnership to provide a balanced approach to coastal engineering projects. The living shoreline design approach helps our clients reduce erosion and restore habitat while creating more resilient coastlines ready to adapt to sea level rise and storm risks. We work in a variety of geographic areas across the eastern and western coastlines of the US and throughout the Caribbean. Tetra Tech is a leader in providing clear solutions for coastal restoration and protection within sustainable natural and socioeconomic frameworks. Our clients seek us out for our project planning, design, engineering, permitting, and construction oversight services expertise. We are adept at formulating the appropriate solution, tailored to the specific and unique characteristics of each project site.

Tetra Tech understands how important those funds are to an economy that is recovering from disasters. Tetra Tech is prepared to assist in evaluating damages, working with FEMA and Florida Department of Environmental Protection (FDEP) to determine eligibility, and overseeing recovery efforts on the City's beaches. If tasked, Tetra Tech will employ proven displaced sand removal and beach remediation protocols to create a program in an effort to reopen the beaches as soon as possible and minimize the impact that a beach closure could have on the City's economy. Tetra Tech has assisted St. Johns County, FL; Escambia County (Pensacola Beach/Perdido Key), FL; and Harrison County, MS with coastal restoration services. Additionally, following Hurricane Katrina and the Deep Water Horizon oil spill, millions of federal grant dollars were made available to the Louisiana and Mississippi Gulf Coast for post-event restoration projects.

4.1.3 Waterways Debris Removal

Our team has worked extensively with local, state, and federal agencies (including the United States Army Corps of Engineers [USACE] and the National Oceanic and Atmospheric Administration) to determine legal responsibility and to evaluate and implement marine debris removal programs. We will help the City legal staff rapidly determine legal responsibility for waterway debris removal, verify scope eligibility, and document the work in a fashion deemed appropriate by reimbursement agencies. Our team has performed waterways debris removal and related services to communities across the country, including the following projects:

Waterway debris removal efforts on behalf of the New Jersey Department of Environmental Protection (NJDEP) following Hurricane Sandy; FDEP

following Hurricanes Matthew and Irma; and the City of Cape Coral, Lee County, Brevard County, Monroe County, and Collier County following Hurricane Irma

Inland waterway debris removal assignments for the Galveston City Municipal Utility District #12, Jefferson County Drainage District #7, the Trinity Bay Conservation District, and the Harris County Flood Control District Following Hurricane Ike

Removal of derelict vessels and traps from waterways for Monroe County, Florida (the Florida Keys) following Hurricanes Katrina, Gustav, Ike, and Wilma

4.1.4 Vessel and Vehicle Recovery

Tetra Tech is able to assist the City in documenting the locations and quantities of vessel and vehicle debris in the City and presenting a case to FEMA to approve and fund the program. The City must first show that they have a legal responsibility to remove the debris and that the debris is not the responsibility of another state or federal agency such as the FDEP, USACE, or the NRCS. Vessel and vehicle debris on private land may present unique ingress/egress challenges and require ROE agreements for access.

Tetra Tech has monitored vessel recovery for several clients, including:

- **NJDEP** – Hurricane Sandy | 80 vessels
- **Escambia County, FL and Monroe County, FL (Florida Keys)** – Hurricanes Wilma | 450 vessels
- **Beaufort County, SC** - Hurricane Matthew | 50+ vessels
- **FDEP -** Hurricane Matthew, Michael, & Irma | 64 vessels
- **Miami Dade County -** Surfside Condo Collapse | 100 vehicles

4.1.5 Leaning Trees, Hanging Limbs, and Stump Removal

Tetra Tech offers expertise in reimbursement for the removal of leaning trees, hanging limbs, and stumps. Our team has extensive experience helping communities avoid the de-obligation of funds or non-reimbursement for these activities due to ineligible work. **In 2020, our team monitored the removal and disposal of nearly 200,000 hazardous trees and hangers following consecutive Hurricanes Laura, Sally, Delta, and Zeta.**

Exhibit 2-9: Previous Leaner/Hanger/Stump Removal Programs

2,145,676 Total	**1, 738,389** Hanging Limbs	**245,122** Leaning Trees	**162,165** Stumps
Our team has assisted numerous clients in surveying, documenting, and monitoring the removal of over 2 million leaning trees, hanging limbs, and stumps. Highlights include:			
2020 Hurricane Sally	43,692	5,888	56
2020 Hurricane Laura	120,198	13,160	30
2015–Present CA Wildfires	3,777	13,292	-
2018 Hurricane Michael	27,562	9,949	124
2018 Hurricane Florence	14,609	259	8
2017 Hurricane Irma	316,108	9,045	94,030
2016 Hurricane Matthew	183,214	12,769	2,529
2011 Winter Storm Alfred	84,135	12,355	-
2008 Hurricane Ike	364,860	29,489	1,152
2007 Midwest Winter Storm	99,382	2,682	3

4.1.6 Hazardous Material Removal

Major disasters (particularly those that involve significant flooding) will result in the need to address hazardous materials. Typically, the U.S. Environmental Protection Agency (EPA) is responsible for identifying and removing large quantities of household hazardous waste (HHW) (containers over 5 gallons such as large commercial/industrial storage tanks, propane tanks, 55-gallon drums, etc.). Local governments are charged with implementing collection programs for HHW, including containers with paints, pesticides, household cleaners, oils/solvents, fuels, etc. Our team has broad experience helping local governments plan, procure, implement, and track disaster-related HHW collection programs at curbside or drop-off locations. **Following Hurricane Ike, a storm surge covered almost all of Galveston Island. Our team helped the City of Galveston**

implement one of the largest post-disaster HHW programs in U.S. history, in addition to working cooperatively with the EPA on large quantity HHW recovery.

4.1.7 Asbestos-Containing Material Management

Through our team's years of demolition experience, Tetra Tech has developed best management practices for documenting and monitoring work related to asbestos-containing material (ACM). Tetra Tech will collect and catalog all pertinent information related to the ACM content for a property. Once the remediation contractor has removed and wrapped the ACM, Tetra Tech will document the transfer of custody through final disposition. As part of the ACM documentation process, Tetra Tech will also collect and pair all waste shipment records to the respective load tickets. Additionally, during the course of the project if Tetra Tech notices any lack of due diligence or potential for environmental violations, our management staff will notify City officials immediately and assist in creating a mitigation strategy. In the instance of non-ACM debris removal, Tetra Tech will collect and digitally link all DMS or landfill manifest with the corresponding load ticket. Most recently, as part of our work for CalRecycle Tetra Tech has assisted with documenting the removal of ACM for properties damaged by the devastating wildfires.

4.2 Data Management

Tetra Tech minimizes client costs and maintains consistent visibility of debris project operations by implementing our streamlined processes and utilizing our ADMS, RecoveryTrac™. RecoveryTrac™ is a scalable and fully featured disaster management application designed specifically to address the operational challenges faced during a disaster recovery project. Managing the enormous volume of documentation generated during a debris monitoring operation was paramount to the design of our ADMS**. This state-of-the-art technology has already shown to increase the efficiency and improve the management of debris removal efforts for hundreds of clients.** For more information on data management, please see **Section 2: Approach.**

4.3 Experience Defending Client's Interests During an Audit

A representative example of past clients we have supported during dispute resolution includes, but is not limited to:

- Our team is currently retained by the Louisiana Governor's Office of Homeland Security and Emergency Preparedness (GOHSEP) to assist on hundreds of appeals related to 11 disasters dating back to Hurricane Katrina in 2005.
- Our team is currently working with FEMA's new VAYGo process for clients in Texas such as Fort Bend County and the City of Houston along with the Commonwealth of Puerto Rico.
- During our work with the State of Vermont, Tetra Tech worked on five (5) appeals for PWs related to Tropical Storm Irene. As a result, four appeals were overturned, and one appeal upheld.
- During our work with the Port of Galveston, our team has been involved in appeals related to storm-induced erosion and 705(c) claims. At this time, we have been successful on the appeals, with many remaining to be decided by FEMA region during first appeal.
- Our team supported the successful appeal of over $400,000 of previously deobligated funds in response to the 2004 Hurricanes Charley, Frances, and Jeanne for Lake County, Florida. These funds were associated with debris collected on private roads and gated communities. Our team did a comprehensive GIS analysis of the debris collected in question and was able to appeal the decision and obtain reimbursement from FEMA.

5. Comparable Projects

The projects included at the end of this section are a representative sample of our experience and accomplishments in performing services that are similar in scope, complexity, and magnitude to the City. Per the City's request, **we have included references on the City's reference form which was submitted online**.

6. Key Personnel and Subcontractors

6.1 Key Personnel

Tetra Tech has assembled a team of experienced emergency management, infrastructure, and grant management specialists with hands-on experience in recent disasters and emergencies as well as prevention, mitigation, preparedness, response, and recovery programs. Our disaster recovery professionals are uniquely familiar with the policies, procedures, and requirements associated with providing disaster recovery services subject to FEMA, FHWA, HUD, NRCS, and other federal agency reimbursement programs.

Our staff members have successfully managed the removal of and reimbursement for over **160 million cubic yards (CYs) of debris as well as the demolition of over 12,500 uninhabitable residential and commercial structures.** Our team has monitored and obtained FEMA, FHWA, and NRCS reimbursement on **over 30 debris removal projects in excess of 1 million CYs of debris** and understands the significant resource commitment and effort that is necessary to manage and monitor large-scale debris removal operations for local governments.

Tetra Tech is committed to providing the City with a dedicated and consistent project management team that will expedite recovery efforts in the City by establishing a coordinated and organized approach to debris removal. Our dedicated team is available to the City 365 days per year.

Tetra Tech remains abreast of the latest guidance, issues being debated, and current best practices through participation in expert groups, attendance in training and conference sessions, and working with national experts in disaster recovery operations, emergency management, national security, information technology, public health, transportation, and critical infrastructure protection. **Our proposed team possesses key certifications that help them provide quality technical services and have attended numerous training courses related to debris operations and emergency management.**

Some of these include:

- Occupational Safety and Health Administration (OSHA) Disaster Site Worker Course
- OSHA 10-Hour Construction Safety Certification
- OSHA 40-Hour HAZWOPER Certification
- G-202 Debris Management
- IS 100: Introduction to Incident Command System
- IS-200: Basic Incident Command
- IS-631: Public Assistance Operations I
- IS-632: Introduction to Debris Operations
- IS-634: Introduction to FEMA's Public Assistance Program
- IS-700: National Incident Management System
- IS-800: National Response Program
- Intermediate Workzone Traffic Control (FDOT)

Additionally, all collection and disposal monitors and field supervisors must attend a debris monitoring training session prior to beginning work on the project. These training sessions are delivered by experienced trainers and provide the information required to facilitate accurate field monitoring. Tetra Tech also conducts daily "tailgate safety sessions" with field employees to alert them of potential work hazards and review safe work practices.

6.1.1 Senior Management Team

Our senior management team will provide expert oversight and assistance at critical junctures and is prepared to assist the project management team for the duration of any disaster recovery operation. These individuals bring decades of disaster debris monitoring and reimbursement expertise.

Meet our Leadership Team	
Jonathan Burgiel, *Senior Advisor, President, Tetra Tech Disaster Recovery*	**As president of Tetra Tech Disaster Recovery, Mr. Burgiel provides executive-level oversight to help our team meet the County's needs and expectations and serves as an executive sponsor to overcome challenges faced in operation.** 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 provided senior management leadership to Puerto Rico (Hurricane Maria); Miami-Dade County (Hurricane Irma); Richland County, South Carolina (Historic 1,000 Flooding Event); New Jersey Department of Environmental Protection (NJDEP) (Hurricane Sandy); State of Connecticut (Hurricane Sandy); State of Louisiana (Hurricane Isaac); City of New Orleans, LA (Hurricane Katrina Residential Demolition Program); and Harris County, Texas (Hurricane Ike), to name a few.
Ralph Natale *Senior Advisor, Operations*	Mr. Natale leads TDR's recovery practice by developing programs, providing daily project support, and providing oversight and guidance to project managers. Mr. Natale is an expert in FEMA PA Grant Program reimbursement policies and has managed nearly 70 projects in his 15-year career. Mr. Natale has served as a principal in charge, project manager, data manager, and operations manager in response to some of the country's largest debris-generating disasters, including Hurricanes Laura, Matthew, and Katrina, as well as the California Wildfires.
Allison McLeary, J.D. *Legislative Affairs Consultant*	**In support of the City's disaster debris program, Allison McLeary will apply her 18 years of program administration and policy expertise to facilitate procedural and data compliance with FEMA requirements.** Ms. McLeary is an experienced emergency response and recovery executive with a demonstrated history of building meaningful relationships across all levels of government. As the former **Recovery Bureau Chief of the Florida Division of Emergency Management, and Recovery Legal Counsel for Louisiana GOHSEP,** she offers direct, senior-level experience administering grant programming in coordination with federal agencies. She understands the points of friction many PA grant projects can encounter through the submittal and review process. She will provide senior-level guidance to the City for various reimbursement matters should the need arise, and will make sure the City's priorities are addressed.
Chuck McLendon *Project Officer/ Principal*	Mr. Chuck McLendon 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 nation's leading experts 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. 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 upwards of $2.5 billion in FEMA Public Assistance (PA) reimbursement. Mr. McLendon served as Principal in Charge for Beck Disaster Recovery's debris monitoring services with the City following Hurricanes Katrina and Wilma.

6.1.2 Project Management Team

In addition to our senior management team, our dedicated project management team consists of disaster recovery professionals who are uniquely familiar with the policies, procedures, and requirements associated with providing disaster recovery services. **Tetra Tech's staff members constitute an integrated team with unparalleled skills and experience that is uniquely qualified to manage the debris monitoring operations.**

Name	Experience Summary
Will Barton *Project Manager*	Mr. Will Barton is a project manager for Tetra Tech who has served on various projects throughout the country in recent years. Mr. Barton has developed an extensive understanding of federal, state, and local regulations, protocols, processes, and guidance with respect to disaster response and recovery. Mr. Barton served as regional project manager for 8 contracts that were activated in Broward County following Hurricane Irma. He oversaw 16 separate debris hauling contracts, proper segregation at the various disposal sites used mu multiple municipalities, data integrity and reporting, and overall management of the debris programs. Recently, Mr. Barton responded to the City of Lake Charles, which experienced devastating damages as a result of Hurricane Laura. There, Mr. Barton oversaw the removal of over 3.3 million cubic yards of debris.
Bob Creech *Operations Manager*	Mr. Bob Creech has over 7 years of experience managing disaster debris monitoring projects. He has responded to hurricanes, wildfires, flooding events, severe storms, tornadoes, and a winter storm across six states. Mr. Creech has an in-depth understanding of field projects associated with fire recovery, debris removal, and environmental remediation. He has coordinated required site assessments for HUD-mandated environmental reviews for thousands of flood and hurricane damaged homes in Louisiana and North Carolina.
Christina Hendrick *FEMA Reimbursement Manager*	Ms. Christina Hendrick is a seasoned grant manager with more than 14 years of experience. She has overseen more than $4 billion in federal grant funding under FEMA PA, FEMA 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. 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.
Joe Benarroch *Billing/Invoice Analyst*	Mr. Joe Benarroch is a regional data manager and invoice reconciliation manager for Tetra Tech, Inc. As a regional manager Mr. Benarroch is responsible for oversight and management of field data managers and invoice analysts. His areas of expertise include FEMA eligibility and documentation requirements, private property debris removal packet management, database management, and project reporting. Mr. Benarroch also has an in-depth understanding of our Automated Debris Management System (ADMS) RecoveryTrac™. As such he can support the implementation of ADMS in the field as well as establish quality assurance and project reporting.
Jeff Dickerson *GIS*	As the GIS and Technical Applications Manager, Mr. Dickerson is responsible for the planning, development, deployment of technical applications supporting emergency response operations. Mr. Dickerson has led the development and support of Tetra Tech's ADMS, RecoveryTrac™. As one of only three systems validated by the USACE, it is the preferred provider by the USACE debris contractors, providing ADMS services to six of eight USACE districts globally. Mr. Dickerson has managed numerous large disaster activities with over 1,000 field monitors, coordinated the operation of round-the-clock data processing centers, and provided technical support for a debris management database to track the over 1,000 trucks and documentation for over 5 million CYs of debris brought to the client's DMS locations.
Oliver Yao *Operations Specialist*	Oliver Yao is a Florida resident and member of the Senior Management Team. Mr. Yao provides a full suite of debris removal consulting expertise, including project operations and logistics, personnel training and oversight, and FEMA coordination. Mr. Yao has supported response efforts to some of the largest disasters to affect the United States, including Hurricanes Katrina, Ike, Sandy, Matthew, and Harvey. Mr. Yao has developed standard operating procedures (SOP) for documentation and data management that assist our clients during closeout and audit. He has provided local governments across the country with debris management consulting services. Mr. Yao is a leading subject matter expert in reimbursement documentation and closeout audit support, and has assisted numerous local governments with FEMA appeals.

Name	Experience Summary
Chris Burns *Environmental Consultant*	Mr. Burns has more than 17 years of experience providing management, scientific, and technical consulting services, including private and public sector clients under a variety of technical assistance, CDBG, emergency response, emergency management, planning, and training and exercise programs. Mr. Burns has provided oversight for and environmental support for disaster debris projects, which has included hazardous materials, soil sampling, site assessments, financial tracking, invoice reconciliation, and permitting. He has experience overseeing multi-disciplinary teams made of internal and subcontracted staff resources and has managed projects and complex programs with values in excess of $70 million.
Jonathan Schaefer *Safety Consultant*	Mr. Schaefer has over 32 years of experience in a wide array of large-scale disaster recovery program management, process improvement and business consulting applications. As Director of Health & Safety (H&S) of Tetra Tech's post-disaster services, Mr. Schaefer is in charge of overall H&S policy guidance and implementation. Mr. Schaefer has extensive knowledge of OSHA regulations. He is OSHA 40-Hour HAZWOPER certified and an authorized OSHA Construction Safety Outreach Trainer.

6.2 Professional Certifications, Training, and Licensing

Our team members continually work toward expanding their knowledge and expertise. Examples of certifications and training courses that Tetra Tech team members regularly engage in include:

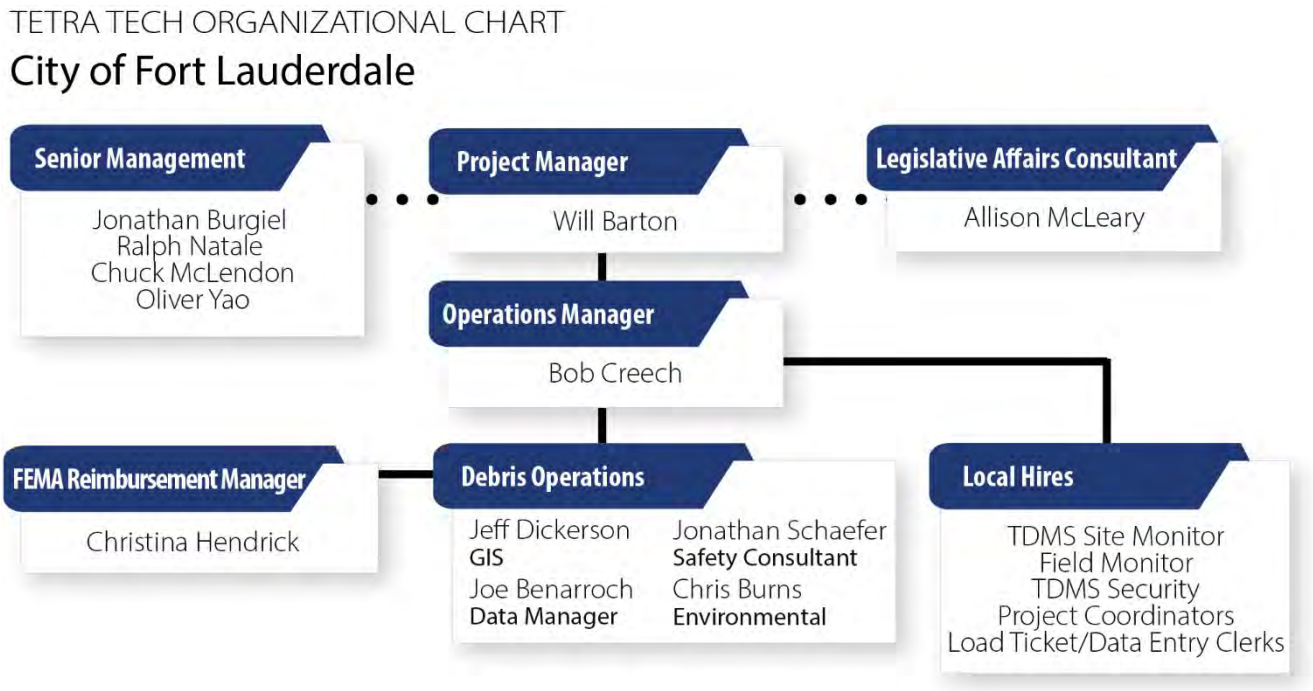
- Occupational Safety and Health Administration (OSHA) Disaster Site Worker Course
- OSHA 10-Hour Construction Safety Certification
- OSHA 40-Hour HAZWOPER Certification
- G-202: Debris Management
- IS 100: Introduction to Incident Command System
- IS-120: Introduction to Exercises
- IS 191: ICS/EOC Interface
- IS-200: Basic Incident Command
- IS 242: Effective Communication
- IS-288: Local Volunteer and Donations Management
- IS-230: Fundamentals of Emergency Management
- IS-547: Introduction to Continuity of Operations (COOP)
- IS-631: Public Assistance Operations I
- IS-632: Introduction to Debris Operations
- IS-634: Introduction to FEMA's Public Assistance Program
- IS-700: National Incident Management System
- IS-800: National Response Program
- ICS 300: Intermediate ICS for Expanding Incidents

All collection and disposal monitors and field supervisors must attend a debris monitoring training session prior to working. In addition, our environmental health and safety training program helps our business operate in a manner that protects the health and safety of our employees, customers, business partners, community neighbors, and the environment. Our field teams attend daily safety sessions with field employees to discuss potential hazards and review safe work practices.

6.3 Organizational Chart

The exhibit below shows our proposed project team organizational structure. The proposed organization structure is based on industry best practices and an understanding of geography and the distinct management responsibilities of each position. Our proposed organizational structure ensures orderly communication, distribution of information, effective coordination of activities, and accountability. Tetra Tech's project team can scale as needed, coordinate response, establish common processes for planning and managing resources, and adapt organizational structure to match the needs and complexities of projects. **Résumés have been included at the end of this section.**

Exhibit 2-10: Organizational Chart



6.4 Subcontractors

We are adept and experienced in managing the availability of and access to needed personnel on disaster management projects. These projects often require simultaneous performance of multiple task orders by multiple companies, often at multiple locations. Our approach is that personnel from each company assigned to a task order will work together **as one** under Tetra Tech's single task order organization toward a common set of performance goals. Each participating subcontractor will perform as an integral team member to provide the diverse resources and flexibility this contract demands, and Tetra Tech will take direct responsibility for all subcontracted work.

DEANGELO DEVELOPMENT INC.

Joining Tetra Tech is this submittal is **DeAngelo Development, Inc.** a Fort Lauderdale minority and small business enterprise. DeAngelo Development offers extensive experience in construction, construction management, and staff augmentation. DeAngelo Development has been directly awarded State and Federal funded projects of over $5 Million and has completed over $23 Million of construction using State and Federal subsidies. DeAngelo Development will assist Tetra Tech by providing inspection and staff augmentation services.

Some of DeAngelo's accomplishments include:

- Awarded Certificates for revitalization in the City of Lauderhill and the Town of Davie
- Recognized by the City of Fort Lauderdale as having the best house of less than 2,000 square feet
- Recognized by the City of Fort Lauderdale for the 2000 home of the year
- The City of Fort Lauderdale CRA won Merit award at the 2005 Annual Redevelopment Award Program for the Dorsey Infill Housing Program, which included 11 homes designed and built by DeAngelo Development Inc.

Address: 1816 NW 19th Street Fort Lauderdale, FL 33311 | Office Phone: (954) 463-0085

DESCRIPTION OF WORK

The City of Pensacola is located in the Florida Panhandle of northwest Florida. Over the last 20 years, Tetra Tech has assisted the City after being impacted by numerous disaster events including Hurricane Ivan, Hurricane Dennis, the Deepwater Horizon Oil Spill, and a major flooding event. In September of 2020, Hurricane Sally strengthened into a Category 2 hurricane just prior to landfall near the Florida-Alabama border and significantly impacted the City.

Hurricane Sally resulted in significant wind and storm surge related damage. The storm generated significant quantities of debris and devastated much of the marine infrastructure in the City. Tetra Tech has been serving as the City's disaster debris monitoring provider since 2004 following Hurricane Ivan. We were engaged with the City in the days before Sally's impact and responded to the City's Sanitation Department within hours after its impact to begin damage assessments and formulated a debris management mobilization.

As part of our Pensacola debris monitoring mobilization, we hired and trained more than 75 debris monitors within 72 hours. Tetra Tech monitored the collection of more than **574,000 cubic yards** and over **4,500 hanging tree limbs**. We monitored disposal at three debris management sites and two final disposal sites. Our monitoring efforts included both the contract debris haulers vehicles as well as City of Pensacola trucks that assisted in the debris mission. In addition to traditional debris monitoring services, Tetra Tech assisted the City in identifying and opening additional debris management sites and assisted the City in cost-justifying a major amendment to the debris hauler's contract.

CLIENT

City of Pensacola, Florida

DOLLAR VALUE

$1,109,949 (Hurricane Sally)

$5,382,521 (Ivan/Dennis)

DATES/TERM OF CONTRACT

September 2020 – December 2020 (Hurricane Sally)

September 2005 – September 2008 (Hurricanes Ivan & Dennis)

VOLUME OF DEBRIS

574,579 CY (Hurricane Sally)

403,144 CY (Hurricane Dennis)

1,381,669 CY (Hurricane Ivan)

PROJECT ROLE

Prime Contractor

FEMA REIMBURSEMENT RATE

100%

CLIENT CONTACT

Mr. John Pittman
Sanitation Director
2759 North Palafox St.
Pensacola, FL 32501
(850) 860-2334
JPittman@cityofpensacola.com

KEY FEATURES

- Disaster Debris Monitoring
- Project Management and Oversight
- Debris Management Consulting and Technical Assistance

DESCRIPTION OF WORK

The City of Miami (City) is a major port city on the Atlantic coast of South Florida. The City is a major center of commerce, finance, and boasts a strong international business community, with a population of about 450,000.

CLIENT

City of Miami, Florida

DOLLAR VALUE

$3,911,307

DATES/TERM OF CONTRACT

September 2017– July 2018

VOLUME OF DEBRIS

540,053 CY

PROJECT ROLE

Prime Contractor

FEMA REIMBURSEMENT RATE

100%

CLIENT CONTACT

Zerry Ihekwaba, PhD, PE
Deputy City Manager
3500 Pan American Drive,
Miami, FL 33133
(305) 468-5900

Tetra Tech has a standby contract agreement with the City and as such had the advantage of planning side-by-side with the City prior to the impact of Hurricane Irma. In the months immediately before the storm, the City and Tetra Tech staff had met several times to review FEMA requirements, train City and debris hauler staff on expectations, and review and permit temporary debris management sites. In the days leading up to Hurricane Irma making landfall, Tetra Tech staff and City officials were actively planning a coordinated response to a potentially large-scale debris generating event.

Tetra Tech staff was on the ground within 12 hours of impact and engaged in the immediate tasks of assisting with temporary site permitting, coordinating primary clearance routes with the City's debris haulers, forecasting debris removal operations, and training new staff.

Tetra Tech eventually hired over 130 monitors to document the removal of nearly 15,000 loads of eligible debris totaling over half a million cubic yards. As debris removal operations ended, Tetra Tech continued to work with the City on updating its Request for Proposals (RFP) for debris removal contractor procurement and updating the Disaster Debris Management Plan.

KEY FEATURES

- Private Property Debris Removal Monitoring
- Interlocal Agreement Coordination
- Shared Disposal Site Coordination

DESCRIPTION OF WORK

Pinellas County is one of the most densely populated counties in Florida. Its low-lying elevation places most its residents in flood zones, putting millions of homes and structures at risk. Although the County avoided a direct hit from Hurricane Irma in September 2017, the storm nonetheless caused widespread power outages and hundreds of tons of disaster debris.

In the immediate aftermath, Pinellas County activated the Tetra Tech team to conduct post-disaster debris monitoring services under a pre-positioned contract. Our management team was on-site within hours of the storm's passing to conduct initial damage assessments and begin monitoring the cleanup process. Over 120 local personnel were hired as debris monitors, documenting over 12,000 loads of debris. This totaled **over 380,000 cubic yards of debris removed from County roads.** In addition, the County allowed its municipalities to use County disposal locations to ease the burden of long-haul distances. Tetra Tech coordinated and tracked the segregation of debris by origin at multiple disposal sites.

CLIENT

Pinellas County, Florida

DOLLAR VALUE

$1,759,698.00

DATES/TERM OF CONTRACT

September 2017– November 2018

VOLUME OF DEBRIS

382,211 CY

PROJECT ROLE

Prime Contractor

FEMA REIMBURSEMENT RATE

100%

CLIENT CONTACT

Sean Tipton
Public Works – Traffic Engineering
22211 US Hwy 19N, Bldg 1
Clearwater, FL 33765
Tel. (727) 464-8809
Mobile (727) 222-0441
stipton@co.pinellas.fl.us

KEY FEATURES

- Program Management
- DMS Permitting
- Collection/Disposal Monitoring
- Contractor Procurement
- Data Management
- FEMA Reimbursement
- Large ADMS deployment

DESRIPTION OF WORK

For over a decade, our team has had the pleasure of providing disaster debris monitoring, program management and Federal Emergency Management Agency (FEMA) reimbursement support on a stand-by basis to the City of Houston, Texas. Over that time period, the City has activated our team for 3 very large and very unique recovery projects. Due to our long standing relationship with the City and frequent coordination in times of normalcy, we have been able to provide superior service regardless of the scope of work.

Our team most recently responding to disaster relief efforts in Houston as a result of Hurricane Harvey, the most powerful storm to impact the Texas coast since Hurricane Carla in 1961. Our team remained on-site before, during, and after the impact of the storm, thus facilitating an immediate response and ramp-up for debris monitoring operations. Our team hired nearly 250 local monitors and monitored the removal of **approximately 2.5 million cubic yards** of land debris and 50,000 yards of wet debris.

Severe Storms and Flooding (2015 and 2016)

The City activated our team in response to the unprecedented rains, flooding and severe weather that impacted the area in two different events a year apart. Tetra Tech provided debris consultants and incident command staff as during the response period and soon after mobilized their debris team to monitor the **removal of over 1,000,000 cubic yards** of C&D debris. Our team has also been activated for the 2011 severe drought and hazardous tree removal program involving **approximately 5,000 trees**; and for disaster program management following Hurricane Ike in 2008, which resulted in **over 5.6 million CYs of debris.**

CLIENT

City of Houston, Texas

DOLLAR VALUE

>$33 Million

$12 Million (Harvey Only)

DATES/TERM OF CONTRACT

Hurricane Harvey

Parks Program: June 2018 – July 2018

ROW: September 2017 – February 2019

Waterways: May 2018 – August 2019

PROJECT ROLE

Prime Contractor

FEMA REIMBURSEMENT RATE

100%

CLIENT CONTACT

Mark Wilfalk, Director of Solid Waste Management Division
611 Walker Street, 12th Floor
Houston, TX 77002
(713) 837-0311
Mark.wilfalk@houston.tx.gov

KEY FEATURES

- Nearly 2 million cubic yards of debris to-date
- Over 32,000 hazardous trees and limbs removed
- 12 Debris Management Sites, 3 Final Disposal Sites
- Over 100 Debris Hauling Vehicles Certified

DESCRIPTION OF WORK

Baldwin County (County) is located along the Gulf Coast in southern Alabama and is the largest county in the state by area and 7th largest by population. In September 2020, Hurricane Sally made landfall in the City of Gulf Shores, leaving over 160,000 residents without power throughout the County. Hurricane Sally caused significant damage with damages estimated to be in the hundreds of millions of dollars.

Under a pre-positioned contract, the County called upon Tetra Tech to manage the removal of debris. Our team immediately responded to the County and were on site within 4 hours after receiving a notice to proceed.

Our on-site project management team rapidly mobilized debris operations, hiring and training 224 local debris monitors to oversee field debris removal and disposal at 12 DMS across the County. Tetra Tech utilized our proprietary ADMS, RecoveryTrac, to successfully collect an extensive amount of debris data, and then established a geoportal to provide the County with real-time recovery operations reporting.

To date, our team has monitored the **removal of over 1,978,870 cubic yards** of debris, 39,469 hanging tree limbs, and 5,887 hazardous trees. Our team continues to assist Baldwin County in responding to this storm and will remain by the County's side through their long-term recovery.

CLIENT

Baldwin County, Alabama

DOLLAR VALUE

$6,910,848

DATES/TERM OF CONTRACT

September 2020 – April 2021

VOLUME OF DEBRIS

4,425,280 CY

PROJECT ROLE

Prime Contractor

FEMA REIMBURSEMENT RATE

Ongoing

CLIENT CONTACT

Terri Graham
Development and Environmental Director
22251 Palmer Street
Robertsdale, AL 36567
(251) 972-6878
TGraham@baldwincountyal.gov

KEY FEATURES

- Over 6.9 Million cubic yards of debris removed to date
- Over 40,000 hazardous limbs and trees removed
- Hired and trained over 470 local debris monitors

DESCRIPTION OF WORK

Hurricane Laura devastated Southeast Louisiana in September 2020, in the middle of an extremely active hurricane season. The storm displaced thousands of residents across Calcasieu Parish, caused extensive power outages, and created a huge amount of storm debris and downed trees.

As the standby debris monitoring contractor for Calcasieu Parish, our team was in communication with Parish officials before, during, and immediately the Hurricane's impact to assist the Parish. Our project management team deployed to the Parish and swiftly began debris operations and conducting outreach to hire local debris monitors.

Having facilitated a planning meeting with Parish officials only 3 weeks prior to impact, our Sr. Management Team's familiarity with the Parish ensured seamless communication with Parish stakeholders throughout the mobilization process. Our team was able to rapidly begin the debris removal management process, including identifying and permitting of 15 debris management sites. To date, Tetra Tech has monitored the removal of an unprecedented **6.9 million cubic yards of debris, 32,745 hanging tree limbs, and 8,800 hazardous trees**. Our team will stand by the Parish through its long-term recovery process.

CLIENT

Calcasieu Parish, Louisiana

DOLLAR VALUE

$8,552,059

DATES/TERM OF CONTRACT

September 2020 – May 2021

VOLUME OF DEBRIS

6,913,566 CY

PROJECT ROLE

Prime Contractor

FEMA REIMBURSEMENT RATE

100%

CLIENT CONTACT

Theresa T. Champeaux, Assistant Director of Public Works

1114 Ryan Street. P.O. Box 3287, Lake Charles, LA 70602

P. (337) 721-3700

tchampeaux@calcasieuparish.gov

CLIENT

Volusia County, Florida

DOLLAR VALUE

$1,967,757

DATES/TERM OF CONTRACT

October 2016–February 2017

VOLUME OF DEBRIS

1,058,962 CY – Hurricane Matthew

PROJECT ROLE

Prime Contractor

FEMA REIMBURSEMENT RATE

100%

CLIENT CONTACT

Arden Fontaine
Activity Project Manager
Volusia County Public Works
123 W Indiana Avenue, #402
Deland, FL 32720
Office: 386-736-5965 x15621
Cell: 386-717-9224
afontaine@volusia.org

KEY FEATURES

- Debris monitoring and program management
- Private road debris removal
- Public Assistance (PA) Grant Management Services

DESCRIPTION OF WORK

Hurricane Matthew devastated the coastal communities of Volusia County in October 2016, when it made landfall as a Category 2 hurricane and was responsible for one fatality. With 90% of residents left without power, there were numerous reports of downed powerlines, downed trees, and flooded homes, causing chaos throughout the county.

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. Early estimates of the damage indicated debris amounts totaling over 1 million cubic yards, with thousands of hazardous trees in public roads and debris in waterways. Tetra Tech mobilized a team within hours and began the process of onboarding local debris monitors.

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 tasks like getting temporary debris sites permitted and putting together the documentation to request FEMA approval of debris collection on private roads. In total, our team **monitored 1,058,962 cubic yards of debris**. Additionally, our team of grant management specialists has assisted in administering FEMA federal grant funding services and grant administration for all categories of work.

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. 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.

RELEVANT EXPERIENCE

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

- 67 communities and over 2,400 staff in Florida – Hurricane Irma
- 38 communities and over 1,400 staff in Texas – Hurricane Harvey
- Multiple communities in South and North Carolina – Hurricane Matthew
- Florida Department of Economic Opportunity HUD-DBG-DR Rehabilitation/Reconstruction Program – Hurricane Irma
- Hurricane Maria debris mission supporting the Commonwealth of Puerto Rico Department of Transportation
- 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

YEARS OF EXPERIENCE

30+

AREA OF EXPERTISE

- Solid and Hazardous Waste Management
- Disaster Recovery Program Management
- Federal Grant Management

DISASTERS

- 4337 FL Hurricane Irma
- 4332 TX Hurricane Harvey
- 4286 SC Hurricane Matthew
- 4245 TX Flood
- 4241 SC Flood
- 4087 Hurricane Sandy
- 4084 Hurricane Isaac
- 4029 TX Wildfires
- 4024 Hurricane Irene
- 4106 CT Winter Storm
- 1791 Hurricane Ike
- 1786 Hurricane Gustav
- 1780 Hurricane Dolly
- 1679 FL Tornados
- 1606 Hurricane Rita
- 1609 Hurricane Wilma
- 1602 Hurricane Katrina
- 1595 Hurricane Dennis
- 1561 Hurricane Jeanne
- 1551 Hurricane Ivan
- 1545 Hurricane Frances
- 1539 Hurricane Charley

EDUCATION

University of Central Florida
Master of Business Administration, 1989

Tufts University
Bachelor of Arts, Economics, 1984

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 the former Recovery Bureau Chief of the Florida Division of Emergency Management,** and Recovery Legal Counsel for the Louisiana GOHSEP, she offers direct, senior-level experience administering grant programming in coordination with federal agencies. She understands the points of friction many FEMA Public Assistance (PA) grant projects can encounter through the submittal and review process. 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

YEARS OF EXPERIENCE

18 years

AREA 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

EDUCATION

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

Auburn University, Bachelor of Arts, March 2000

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, preform 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
- Advised the State Police through the buildout of the LWIN Statewide radio network, currently with over 99,000 users and statewide coverage, including tower and backhaul buildout
- 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.
- 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.

EXPERIENCE SUMMARY

Mr. McLendon has been providing consulting engineering services to federal, state, and local governments across the U.S. for more than 29 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 29 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 100 million cubic yards of debris and upwards of $2.5 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”)

RELEVANT EXPERIENCE

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 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.

YEARS OF EXPERIENCE

29 years

AREA OF EXPERTISE

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

DISASTERS

- 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-1791TX, Hurricane Ike
- DR-1786LA, Hurricane Gustav
- DR-1603LA, Hurricane Katrina
- BP Deepwater Horizon Oil Spill

EDUCATION

Bachelor of Science, Business Marketing, Florida State University, 1991

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.

Hurricane Matthew (2016)

City of Flagler Beach, Florida

In the immediate aftermath of Hurricane Matthew, Mr. McLendon assisted Flagler Beach in the implementation of a debris monitoring program as well as various other post-disaster advisory services. We assisted the City in negotiations with the City's disposal site for the hurricane generated debris. We also helped the City to clean up with the waste water treatment plant site as part of a separate non-FEMA reimbursable contract. On numerous occasions, we provided input to City staff on FEMA reimbursement including procurement policies.

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.

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 Ike (2008)

Galveston County and City of Galveston, TX

Mr. McLendon oversaw the debris removal effort for Galveston County and the City of Galveston, which was upwards of 10 million cubic yards of debris. 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.

Hurricane Ivan (2004)

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

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.

EXPERIENCE SUMMARY

Mr. Will Barton has over five years of experience and has developed an extensive understanding of federal, state, and local regulations, protocols, processes, and guidance with respect to disaster recovery, response, and recovery. He has provided program support following Hurricanes Ida, Laura, Irma, Matthew; wildfire events; flooding; and a tropical storm.

RELEVANT EXPERIENCE

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.

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.

Regional Project Manager (August 20201–Present)

Various Louisiana Clients | Hurricane Ida

Immediately following the impact of Hurricane Ida, 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, 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 2020)

Cal Recycle – Northern Branch

Mr. Barton worked with CalRecycle as debris group supervisor to outline debris removal and property assessment for 1,700 properties spread throughout six counties. He managed property assessments, provided debris management site oversight, and coordinated with debris removal contractors. He also provided project management for 150 personnel and led weekly meetings with CalRecycle and CalOES to further define scope and outline progress.

Project Manager (August 2020–November 2020)

City of Lake Charles, LA | Hurricane Laura

As project manager, Mr. Barton's responsibilities served as a client liaison and coordinated with the City's debris hauling contractor. He managed all field operations, including staff hiring, training, and scheduling for the removal

YEARS OF EXPERIENCE

5 Years

AREA OF EXPERTISE

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

DISASTERS

- 4611 LA Hurricane Ida
- CA Wildfires (Multiple)
- 4559 LA Hurricane Laura
- 4337 FL Hurricane Irma
- 4466 TX Tropical Storm Imelda
- 4286 SC Hurricane Matthew
- 5231 CA Erskine Wildfire
- 4277 LA Louisiana Flooding

EDUCATION

Louisiana State University
B.S., Business Administration

TRAINING/CERTIFICATIONS

- OSHA 40-Hour HAZWOPER

of over 6 million cubic yards of debris. He also oversaw truck certification, debris collection, disposal monitoring, and public communication.

Project Manager (September 2019–November 2019)

Jefferson County, TX | Tropical Storm Imelda

Tropical Storm Imelda, one of the wettest cyclones to make landfall in the continental United States, made landfall just south Jefferson County, Texas in late September 2019, bringing rainfall totals that some areas of the County had never experienced before. Mr. Barton served as project manager for this effort. Mr. Barton's responsibilities included liaising with County Emergency Management Staff, County Commissioners, and the County's debris hauling contractor. Mr. Barton also managed all field operations, including staff hiring, training and scheduling, truck certification, debris collection, and disposal monitoring and public communication.

Operations Section Chief (January 2019–September 2019)

Camp Fire, CA – CalRecycle

Mr. Barton served as an Operations Section Chief for the largest wildfire in California 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 oversaw the day-to-day activities of 150 employees and the management and documentation from the safe and eligible remediation of 3,500 fire-damaged and destroyed properties.

Field Project Manager (November 2018–December 2018)

Early County, Georgia – U.S. Army Corps of Engineers (USACE)

Mr. Barton served as lead field project manager for the Early County, Georgia USACE mission to remove debris that was a result of Hurricane Michael. 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 served as a Deputy Operations Section Chief supporting the oversight of debris removal from nearly 1,300 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, USACE selected three prime contractors to work in the three fire-damaged regions, and Tetra Tech provided the documentation 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™ ADMS to document debris removal efforts.

Operations Manager (October 2016–July 2017)

Hilton Head Island, South Carolina | Hurricane Matthew

In October 2016, Hurricane Matthew's heavy rains caused power outages, flooding, and extensive damage, making parts of the island inaccessible by vehicle. Mr. Barton was responsible for verifying that monitors were trained and responded to issues in the field, as well as the management of locally hired additional supervisors and field monitors. Mr. Barton oversaw the removal of over 2.1 million cubic yards of debris.

Task Force Leader (September 2016–October 2016)

CalRecycle | Erskine Fire Remediation

The Erskine fire was the second-most destructive fire of the 2016 California wildfire season, 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.

EXPERIENCE SUMMARY

Mr. Bob Creech has over 7 years of experience managing disaster debris monitoring projects. He has responded to hurricanes, wildfires, flooding events, severe storms, tornadoes, and a winter storm across six states. This includes project oversight for communities in Louisiana following severe flooding and the State of Louisiana's Restore Louisiana Program.

Mr. Creech is responsible for the quality control of debris site/tower monitors, field coordinators, and project inspectors and ensuring that all documentation that is being captured is FEMA-compliant during debris removal operations. He will verify that monitors retain their training and will respond to issues as they arrive in the field.

Mr. Creech has an in-depth understanding of field projects associated with fire recovery, debris removal, and environmental remediation. He has coordinated required site assessments for HUD-mandated environmental reviews for thousands of flood and hurricane damaged homes in Louisiana and North Carolina.

YEARS OF EXPERIENCE

7 years

AREA OF EXPERTISE

- Disaster Debris Management
- Monitor Training
- Monitor Dispatch
- Right-of-Way Debris Removal
- Disposal Operations
- Field Operations
- Quality Assurance/Quality Control
- Demolition Operations
- Waterway Debris Removal

DISASTERS

- 5355 WA Babb Fire
- 4476 TN Storms & Tornadoes
- 5278 CA Camp Fire
- 4382 CA Wildfires
- 4344 CA Wildfires
- 4337 FL Hurricane Irma
- 4332 TX Hurricane Harvey
- 4297 GA Storms & Tornadoes
- 4286 SC Hurricane Matthew
- 4240 CA Wildfires
- 4277 LA Flooding

TRAINING/CERTIFICATIONS

- NIMS Certified
- OSHA 40-Hour HAZWOPER

FEATURED RELEVANT EXPERIENCE

Deputy Project Manager (May 2017–October 2017)

State of Louisiana, Restore Louisiana (ReLa) Program

Mr. Creech served as operations manager to support the coordination of site assessments of over 10,000 flood damaged properties that required HUD-mandated environmental reviews (Tier II Site Specific Reviews) in accordance with 24 CFR Part 58 and the current Restore Louisiana Program Environmental Review (Tier II).

Field Supervisor (August 2016 – September 2016)

Ascension Parish, Louisiana | Severe Storms and Flooding

In August 2016, prolonged rainfall resulted in catastrophic flooding that submerged thousands of houses and businesses. Mr. Creech was responsible for the quality control of debris site/tower monitors, field coordinators, and project inspectors and ensuring that all documentation that is being captured is FEMA-compliant during debris removal operations.

Branch Director (January 2021 – Present)

CalRecycle Northern Branch Complex Fire

Mr. Creech is currently serving as Branch Director for CalRecycle's Northern Branch where he oversees all aspects and areas of project management. In addition to the standard debris removal program, Mr. Creech was responsible for spearheading and overseeing the hazardous tree removal program.

Project Manager (November 2020 – December 2020)

Town of Malden, WA | Babb Fire

Following the Washington Babb Fire, Tetra Tech was tasked with completed a right of entry private property debris removal program, which included 40 properties. Mr. Creech served as project manager, where he provided project implementation and oversight.

Project Manager (July 2020 – Present)

Town of Paradise, CA Arborist Program

Overseeing identification and inspections of parcels for the town of Paradise Hazardous tree program, marking and identifying hazardous trees that would be a threat to the public right of-way. The ongoing project is at 7,900 parcels at the peak 8 staff members, 6 certified arborists.

Project Manager (March 2020 – May 2020)

Nashville, TN | Severe Storms and Tornados

Tetra Tech was mobilized to meet with City officials to develop an event specific debris removal scope of work including identifying debris management sites, establishing debris removal zones, and developing a public information campaign. Mr. Creech was served as Project Manager where he oversaw operations and the hiring and training of local debris monitors. In total, Tetra Tech has monitored and documented over 308,000 cubic yards of vegetative debris and staffed 4 unique debris management sites.

Incident Commander (January 2019 – 2020)

Camp Fire, CA – CalRecycle/CalOES

Mr. Creech served serving as Incident Commander following the November 2019 Camp Fire. The project required the demolition and debris removal of nearly 17,000 structures.

Deputy Operations Chief (February 2018- 2019)

Ventura County Wildfires

Mr. Creech worked with the California Office of Emergency Services (CALOES) in Ventura County to assist in clean-up efforts after the “Thomas Fire”. There were over 680 homes being cleaned up in the Ventura County area, and Mr. Creech oversaw the removal of over 200,000 tons of burn debris.

Project Manager (September 2017-November 2017)

City of Dickinson, Texas | Hurricane Harvey

Mr. Creech served as project manager for Dickinson, Texas following Hurricane Harvey. In total, our team monitored the eligible removal and disposal of over 4,000 loads of debris, and due in large part to the efficiency of our ADMS system, the City was able to complete debris removal activities in under 100 days.

Project Manager (August 2017 – October 2017)

Galveston County, Texas | Hurricane Harvey

Following Hurricane Harvey, Galveston County tasked Tetra Tech with providing program management and debris monitoring services. Mr. Creech was deployed as the Project Manager for project setup and to establish field operations. Mr. Creech oversaw the training of field staff, health and safety, and debris monitoring operations.

Operations Manager (October 2016-November 2016)

Town of Hilton Head, SC | Hurricane Matthew

Mr. Creech served as operations manager for the Town of Hilton Head Island. Mr. Creech provided program oversight, implementation of Tetra Tech’s ADMS system, and assisted with the hiring and training of local debris monitors. In total, our team monitored the removal of 2,187,080 cubic yards of debris.

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 FMEA 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.

YEARS OF EXPERIENCE

14+ years

AREA OF EXPERTISE

- Program Design and Implementation
- Grant Administration
- Business Planning
- Project Budgeting and Accountability
- Reimbursement Maximization
- Process Engineering
- State and Federal Regulations/Policies
- Process Improvement
- Resource Management

GRANT EXPERIENCE

- FEMA PA
- FEMA HMGP
- CDBG
- CARES Act

MAJOR DISASTERS

- Hurricane Laura
- Hurricane Sally
- COVID-19
- Hurricane Michael
- Hurricane Maria
- Hurricane Irma
- Hurricane Harvey
- Deepwater Horizon Oil Spill
- Hurricane Gustav
- Hurricane Irene
- Hurricane Ike
- Tropical Storm Lee
- Hurricane Katrina
- Hurricane Rita
- Hurricane Isaac
- Louisiana Severe Storms

TRAINING/CERTIFICATIONS

- Project Management Professional (PMP)

EDUCATION

Louisiana State University
Masters of Public Administration, 2011

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

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.

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.

EXPERIENCE SUMMARY

Mr. Benarroch is a regional data manager and invoice reconciliation manager for Tetra Tech, Inc. As a regional manager Mr. Benarroch is responsible for oversight and management of field data managers and invoice analysts. His areas of expertise include Federal Emergency Management Agency (FEMA) eligibility and documentation requirements, private property debris removal packet management, database management, and project reporting.

Mr. Benarroch also has an in-depth understanding of our Automated Debris Management System (ADMS) RecoveryTrac™. As such he can support the implementation of ADMS in the field as well as establish quality assurance and project reporting.

FEATURED RELEVANT EXPERIENCE

Regional Data Manager (October 2018-Present)

State of Florida | Hurricane Michael

Hurricane Michael made landfill in the Florida panhandle as a strong Category 4 hurricane. It caused unpresented damage. Tetra Tech was activated by six clients ranging from the City of Lynn Haven to Wakulla County, Florida. Mr. Benarroch served regional data manager providing QA/QC of project deliverables and reporting. He also served as the invoice reconciliation manager where he oversaw invoice analyst reconciling over $25 million in reimbursable contractor debris removal services.

Senior Data Manager (May 2018-Current)

Collier County, FL | Hurricane Irma Waterway Disaster Debris Removal Program

Mr. Benarroch has been tasked as the senior data manager overseeing the Collier County, FL waterway disaster debris removal program. Mr. Benarroch is responsible for the supervision and inspection of all collected documentation, such as the eligibility of photos against contract requirements, GIS mapping of waterways, and remote database management. In addition, Mr. Benarroch is responsible for all hauler invoice reconciliation and compliance management to contract documentation.

Regional Data Manager (September 2017-August 2018)

State of Florida | Hurricane Irma | Disaster Debris Program Management

Following the aftermath of Hurricane Irma, Mr. Benarroch was deployed as a regional data manager to oversee the daily data operations of the South Florida projects including the Florida Keys and Miami-Dade County. Mr. Benarroch supported the implementation of our ADMS technology through all phases of operations over multiple projects across the region. Mr. Benarroch aided in FEMA compliance management, including QA/QC of right-of-way load collection, and managing the documentation for all hazardous tree and hanger removal for the various programs. Mr. Benarroch was also heavily involved in the hauler invoice reconciliation and project data close out to

YEARS OF EXPERIENCE

4 years

AREA OF EXPERTISE

- FEMA Compliance Monitoring
- FEMA Reimbursement
- Reimbursement Policies and Procedures
- Data Management
- Invoice Reconciliation
- Database Systems

GRANT EXPERIENCE

- FEMA PA

DISASTERS

- 4399 Hurricane Michael
- 4393 Hurricane Florence
- 4385 Connecticut Severe Storms
- 4337 Hurricane Irma
- 4332 Hurricane Harvey
- 4283 Hurricane Matthew
- 4297 Georgia Severe Storms, Tornadoes, and Straight-line Winds
- 4240 Valley & Butte Fire
- 4106 Winter Storm Alfred PW Closeout

EDUCATION

University of Central Florida
Bachelor of Science, Applied Mathematics, 2016

validate the clients received the proper data and documentation to satisfy all FEMA requirements.

Invoice Reconciliation Manager (January 2019-Present)

CalRecycle | Camp Fire

Mr. Benarroch currently serves as the invoice reconciliation manager for the Camp Fire incident. He provides oversight, quality control, and guidance for the invoice reconciliation leads for each of the three prime debris removal contractors.

Regional Data Manager (September 2018- October 2018)

State of North Carolina | Hurricane Florence

Mr. Benarroch was deployed to North Carolina following Hurricane Florence. He served as a regional data manager overseeing multiple data managers assigned to projects in the State. Mr. Benarroch also served as an invoice reconciliation manager where he oversaw invoice analyst reconciling over $13 million in reimbursable contractor debris removal services.

Regional Data Manager (June 2018-August 2018)

State of Connecticut | Connecticut Severe Storms, Tornadoes, and Straight-line Winds Debris Program Management

Following the aftermath of a series of macrobursts that struck the towns of Brookfield, Danbury, New Fairfield, and Southbury, Mr. Benarroch was tasked as the regional data manager to oversee the daily operations and collection of real-time data. Mr. Benarroch supports the implementations of our ADMS technology from the creation of the project within our database to the day-to-day use by our field monitoring staff. Quality assurance (QA) and quality control (QC) procedures are supported remotely through custom reporting services. Mr. Benarroch further aides in hauler invoice reconciliation and compliance management against contract documentation.

Regional Data Manager (August 2017-June 2018)

State of Texas | Hurricane Harvey | Disaster Debris Program Management

Mr. Benarroch was deployed as a regional data manager following the aftermath of Hurricane Harvey. Mr. Benarroch supported the implementation of our ADMS technology through all phases of operations over multiple projects across the state. Mr. Benarroch aided in FEMA compliance management, including QA/QC of right-of-way load collection. In addition, Mr. Benarroch took on the responsibility of training and establishing local data managers across the state to oversee individual projects. Mr. Benarroch was also involved in the hauler invoice reconciliation and project data close out to validate the clients received the proper data and documentation to satisfy all FEMA requirements.

Data Manager (April 2017-September 2017)

Calaveras County, California | Butte Fire

Following catastrophic fires that impacted Calaveras County, many dead or dying trees that were a threat to fall and threaten citizens along the County right-of-way (ROW) were in need of mitigation. Tetra Tech was hired to complete a hazardous tree mitigation program, which included both ROW trees and private property. Mr. Benarroch supported documentation management, reporting, and tree surveying efforts.

Financial Recovery Specialist (April 2017–September 2017)

State of Connecticut | Winter Storm Alfred Project Worksheet Management and Closeout

Mr. Benarroch served as the financial recovery specialist during the final FEMA-PA project worksheet (PW) management and closeout resulting from Winter Storm Alfred. He was responsible for the project cost reconciliation of the invoice totals to the totals listed within the PW. The cost analysis involved a detailed review of all force account labor, force account equipment, and contractor backup provided during the FEMA-PA PW write up. Eligibility for both FEMA and the Federal Highway Administration were reviewed for compliance and accuracy. Mr. Benarroch also created and implemented custom reports and documentation for use during the PW closeout.

EXPERIENCE SUMMARY

Mr. Jeffrey Dickerson has more than 30 years of experience in program management, with extensive experience in technical organizational management, training, and readiness exercises. He is a military veteran with skills in leadership, training, and personnel development. As the Technical Applications Manager, Mr. Dickerson is responsible for the planning, development, deployment of technical applications supporting emergency response operations for the firm.

Mr. Dickerson has extensive experience in process improvement and application of advanced technology to boost efficiency post-disaster field and data operations. He recently presented at the National Hurricane Conference on the use and application of technology to improve disaster response cost efficiency.

Mr. Dickerson has led the development and support of Tetra Tech's automated debris management system (ADMS), RecoveryTrac™. As one of only three systems validated by the USACE, it is the preferred provider by the USACE debris contractors, providing ADMS services to 6 of 8 USACE districts globally. RecoveryTrac's flexibility and GIS capabilities provide best-in-class reporting and analysis tools. Additionally, RecoveryTrac's web-based data feeds enable direct integration into client GIS and emergency management systems.

RELEVANT EXPERIENCE

Project Manager (August 2016–January 2017)

Miami Dade County, FL | Zika Mosquito Inspection and Remediation Monitoring and Program Management

Mr. Dickerson managed the development and deployment of customized GIS-enabled ADMS technology to document and manage a door-to-door mosquito inspection and remediation program. RecoveryTrac technology was implemented by providing Contractor Crews with handheld smart phone devices loaded with the RecoveryTrac software to capture and report the inspection and remediation activity data in real time. The data collected was critical to the County in directing resources in response to changing health concern areas and mosquito counts.

Data Operations Manager (August 2005–October 2006)

Miami-Dade County, Florida | Hurricanes Katrina and Wilma Disaster Recovery and Debris Management

Mr. Dickerson was responsible for the setup and management of a 90-person data center. Mr. Dickerson provided database technical support to successfully track the documentation for over 5 million cubic yards of debris.

Deputy Project Manager (May 2017–October 2017)

State of Louisiana, Restore Louisiana (ReLa) Program

Mr. Dickerson managed the HUD-mandated environmental reviews (Tier II Site Specific Reviews) in accordance with 24 CFR Part 58 and the current

YEARS OF EXPERIENCE

30+

AREA OF EXPERTISE

- Mobile and GIS Technology
- Resource Deployment and Tracking
- Readiness Training and Exercises
- Disaster Operations Support
- 20+ Years Military Experience

TRAINING/CERTIFICATIONS

- FEMA IS-632, IS-700, IS-922
- MCDBA, Microsoft Certified Database Administrator
- MCSE, Microsoft Certified Network Engineer
- MCT, Microsoft Certified Trainer

DISASTERS

- 4340 Hurricane Maria
- 4240 CA Wildfires
- 4223 TX Flooding
- 4166 SC Winter Storm
- 4165 GA Winter Storm
- 4145 CO Flooding
- 4115 SD Winter Storm
- 4087 Hurricane Sandy
- 4084 Hurricane Isaac
- 4029 TX Wildfires
- 4024 Hurricane Irene
- 4106 CT Winter Storm
- 1791 Hurricane Ike
- 1609 Hurricane Wilma
- 1602 Hurricane Katrina

EDUCATION

Thomas Edison University
Associate of Science, Nuclear Engineering Technology, 1997

Restore Louisiana Program Environmental Review (Tier II) Procedures for over 10,000 flood damaged properties.

GIS/ADMS Applications Manager (October 2017–July 2018)

Sonoma, Napa, Lake and Mendocino Counties, CA | Wildfire Disaster Debris Private Property Debris Removal (PPDR) Program Management

As part of a FEMA-Army Corps of Engineers (ACE) contractor team, Mr. Dickerson supported the deployment and data management of the ACE compliant ADMS and GIS technologies to automate documentation of the private property hazard removal and fire debris removal mission. Mission assignment also included site assessment and environmental remediation sampling. To date, over 3,450 properties have been assessed, sampled and fire debris removed generating nearly 761,000 tons of debris. Advanced GIS mapping, document, and data analysis portals were used extensively to document FEMA, ACE, and California environmental requirements.

Lead Field Manager (November 2017– March 2018)

U.S. Virgin Islands | Hurricane Maria

Following the destruction caused by Hurricane Maria, the U.S. Army Corps of Engineers (USACE) was tasked with the mission to remove and dispose of disaster debris. Tetra Tech was contracted by one of the USACE awarded contractors to provide ADMS management and documentation of debris removal activities. Mr. Dickerson served as Lead Field Manager and was responsible for the management and implementation of RecoveryTrac™ to document debris removal efforts.

ADMS and Logistics Manager (May 2015–August 2015)

State of Texas | Severe Flooding Debris and Hazard Removal Program Management

Mr. Dickerson managed the logistics and deployment of staff equipment and supplies as well as ADMS technology to 10 county and local clients in a multi-jurisdiction activation, including over 135 handheld devices removing 325,000 cubic yards of flood and household debris. Advanced GIS web services and data information portals were used extensively in managing the hazardous material pickups, road pass clearance, and public information applications.

GIS/ADMS Application Manager (February 2014–June 2014)

States of Georgia and South Carolina | Winter Storm Pax Disaster Debris Program Management

Mr. Dickerson managed the logistics and deployment of ADMS technology to seven county and local clients in a multi-state activation, including over 265 handheld devices for over 110,000 hazardous limb and tree removals and over 1,000,000 cubic yards of debris. Advanced GIS web services and data analysis portals were used extensively in managing the projects and public information applications.

ADMS Application Manager (October 2013–December 2013)

City of Rapid City, South Dakota | Severe Winter Storm Disaster Debris Program Management

Mr. Dickerson managed the logistics and deployment of ADMS technology, including over 60 handheld devices for over 7,500 hazardous limb and tree removals and over 100,000 cubic yards of debris.

Logistics and Network Operations Manager (October 2011–March 2012)

Connecticut Department of Transportation | Winter Storm Alfred Disaster Management Support Services

Following a severe winter storm, Mr. Dickerson managed the logistics and network infrastructure to support the project work for over 11 state, county, and local clients. His responsibilities included coordinating logistics activities and supporting and developing custom data and mapping applications.

Data Operations Manager (September 2008–September 2011)

City of Houston and Harris County, Texas | Hurricane Ike Debris Removal Monitoring

Following Hurricane Ike, Mr. Dickerson provided IT and logistics support to the City of Houston and Harris County. His responsibilities included IT site support, system setup, end-user training, equipment rentals, and supply distribution.

EXPERIENCE SUMMARY

Mr. Oliver Yao serves as a financial analyst for post disaster programs at Tetra Tech, Inc. Mr. Yao has over twelve years of industry experience in the four phases of emergency management: preparedness, response, recovery, and mitigation. In addition, Mr. Yao has supported response efforts to some of the largest disasters to affect the United States, including Hurricanes Katrina and Ike. Due to his experience, Mr. Yao also has unique knowledge and understanding of federal grant programs and the documentation requirements. This knowledge and experience aided Mr. Yao in developing and implementing standard operating procedures (SOP) for documentation and data management that assist our clients during closeout and audit.

Mr. Yao also understands all aspects of our automated debris management system (ADMS), RecoveryTrac™. Due to his understanding, Mr. Yao is able to support all aspects of the ADMS handhelds, including field deployment, geospatial reporting, and future enhancements.

This knowledge and experience aided Mr. Yao in providing local governments across the country with debris management consulting services such as the development of disaster debris management plans (DDMPs), the procurement of debris removal contractors, and the evaluation of debris management sites (DMS).

RELEVANT EXPERIENCE

Senior Management and Data Oversight (October 2018–Present)

Florida | Hurricane Michael Program Management

Hurricane Michael impacted the Florida panhandle region as a Category 5 hurricane. Mr. Yao currently provides senior management and data oversight for multiple projects in Florida including the cities of Lynn Haven, Springfield, and Callaway. Recovery efforts include private property debris removal and structural demolitions.

Senior Management and Data Oversight (September 2016–July 2017)

Volusia County; St. Johns County; Flagler County; Brevard County, Florida | Hurricane Matthew Program Management

The jurisdictions of Volusia County, St. Johns County, Flagler County, and Brevard County were among the many Florida communities impacted by Hurricane Matthew in September of 2016. Tetra Tech was activated by the aforementioned communities to provide program management and disaster debris monitoring services. Mr. Yao served as a senior management and data oversight manager for the Florida projects. He supported the projects by developing health and safety plans and verifying the projects met the project operations, timeline, deliverable, and budget standards for Tetra Tech.

YEARS OF EXPERIENCE

13 Years

AREA OF EXPERTISE

- FEMA Reimbursement and Audit Support
- Disaster Debris Management
- Data Management
- FEMA-Compliant Disaster Planning
- RecoveryTrac™ ADMS
- Emergency Management Planning

GRANT EXPERIENCE

- FEMA PA

DISASTERS

- 4337 FL Hurricane Irma
- 4332 TX Hurricane Harvey
- 4283 FL Hurricane Matthew
- 4240 CA Valley Fire
- 4223 TX Flooding
- 4166 SC Winter Storm
- 4145 CO Flooding
- 4155 SD Winter Storm
- 4145 CO Flooding
- 4086 Hurricane Sandy
- 4080 Hurricane Isaac
- 4029 TX Wildfires
- 4024 Hurricane Irene
- 1791 Hurricane Ike
- 1786 Hurricane Gustav
- 1780 Hurricane Dolly
- 1679 Tornadoes
- 1676 MO Winter Storms
- 1665 NY Snowstorm
- 1603 Hurricane Katrina

EDUCATION

Rollins College, Crummer School of Business
Master of Business Administration, 2006

Rollins College
Bachelor of Arts, Economics, 2003

Senior Management and Data Oversight (September 2018–December 2018)

North Carolina | Hurricane Florence Program Management

Hurricane Florence impacted North Carolina in September of 2018. Mr. Yao provided senior management and data oversight for multiple projects in North Carolina including the counties of Onslow, Lenoir, and Craven.

Senior Management and Data Oversight (August 2017–April 2018)

City of Houston, Texas | Hurricane Harvey Program Management

The southwest region of Texas was substantially impacted by Hurricane Harvey and the torrential rainfall amounts the system brought to the region. The City of Houston activated the monitoring and program management services of Tetra Tech. Mr. Yao provided senior management and data oversight to the project. Over 1.2 million cubic yards of debris have been collected in the City as a result of Hurricane Harvey.

Senior Management and Data Oversight (May 2015–July 2015)

Hays County; Caldwell County; City of Houston, Texas | Severe Storms, Tornadoes, Straight-Line Winds, and Flooding Program Management

The jurisdictions of Hays County, Caldwell County, and the City of Houston were among the many Texas communities impacted by the torrential rainfall in May of 2015. Tetra Tech was activated to provide program management and disaster debris monitoring services. Mr. Yao served as a senior management and data oversight manager. He supported the projects by developing health and safety plans and verifying the projects met the project operations, timeline, deliverable, and budget standards for Tetra Tech.

Data Manager (April 2011–Ongoing)

City of New Orleans, Louisiana | Hurricane Katrina Residential Demolition Program

Mr. Yao served as a data manager and invoice reconciliation analyst for the City of New Orleans. In total, our team has supported the City of New Orleans in monitoring and documenting the demolition of over 1,700 damaged structures following Hurricane Katrina.

Regional Data Manager (February 2013–January 2014)

New Jersey Department of Environmental Protection | Hurricane Sandy Waterways Debris Removal Program Management

Mr. Yao provided data management and oversight of the application of ADMS technology in both the north and south regions of the state as part of long-term recovery efforts to remove disaster debris from waterways throughout the state.

Debris Management Consultant (June 2012–August 2012)

Lake County, Florida | Pre-Event Disaster Planning Services

Our team has performed disaster planning and recovery efforts in Lake County since 2005 and assisted the County with monitoring efforts following Hurricane Charley and the 2007 Groundhog Day Tornadoes. The County asked our team to assist in the development of a pre-positioned debris contractor RFP. Mr. Yao worked with the County to develop a scope of work and technical specifications for the debris contractor RFP.

Data Manager (August–December 2011)

Henrico County, Virginia | Hurricane Irene Disaster Debris Program Management

Mr. Yao assisted Henrico County with FEMA compliance and reimbursement for more than 22,500 tons of disaster debris; 109 hazardous tree removals; and 13,227 hazardous hanger removals in response to Hurricane Irene. Compliance documentation consisted of correlating scale weight tickets to load tickets, managing hazardous tree and hanger photo documentation, and developing a final data export of all documentation.

Data Manager (September 2008–September 2011)

City of Houston, Texas | Hurricane Ike Disaster Debris Program Management

Mr. Yao was responsible for supporting all data management activities associated with the debris collection effort following Hurricane Ike. He helped install a debris management database to track the huge numbers of trucks and debris loads brought to the City of Houston’s temporary debris storage and recovery sites.

EXPERIENCE SUMMARY

Mr. Burns has more than 17 years of experience providing management, scientific, and technical consulting services, including private and public sector clients under a variety of technical assistance, CDBG, emergency response, emergency management, planning, and training and exercise programs. Mr. Burns has provided oversight for and environmental support for disaster debris projects, which has included hazardous materials, soil sampling, site assessments, financial tracking, invoice reconciliation, and permitting.He has experience overseeing multi-disciplinary teams made of internal and subcontracted staff resources and has managed projects and complex programs with values in excess of $70 million.

RELEVANT EXPERIENCE

U.S. EPA START Program Manager, January 2020-present. Mr. Burns is responsible for ensuring compliance with terms of the contract and work assignments; cost control, monitoring work schedules, budgets, and developing/approving cost estimates; providing monthly status reports on accomplishments, budgets and contract issues; and implementation of HSE policy and procedures to ensure field compliance**.**

U.S. EPA START Readiness Coordinator and Deputy Program Manager, 2014-January 2020. Mr. Burns serves as the US EPA Region 5 readiness Coordinator and Deputy Program Manager. Mr. Burns manages all aspects of deployment readiness and tracks deployment readiness for a 40-person core team of responders and 300 additional reach-back staff. Coordinates on-call schedules and deployments for more than 150 short- and long-term emergency response actions across the six-state region, with mobilization offices and prepositioned staff in Chicago, Minneapolis, Traverse City, Detroit, Cleveland, Cincinnati, Indianapolis, Milwaukee, Green Bay, and St. Louis. Manages the field schedule for the START contract and office employees, with as many as 150+ simultaneous projects with durations ranging from 1 day to 2 years. Manages a preparedness training program, involving approximately 10 training courses and exercises annually for contractor staff. Develops and presents training to keep personnel current on technological advances, data management techniques, and technical disaster management skills necessary to respond to any type of manmade or natural disaster.

California Wildfire Environmental Program Manager (October 2016 – present). Mr. Burns has served in management roles overseeing in the field environmental services conducted on 11 of the 12 past California Wildfires. During these responses Mr. Burns has lead the setup, coordination, and overall management of assessing damage, hazardous materials surveys, air monitoring, asbestos assessments, sample collection, and report preparation. Mr. Burns also manages all environmental logistics and staff coordination on these projects.

Thomas Fire Incident (January 2018-Decemebr 2018). Incident Commander, responsible for overall completion of all debris and environmental work related to the hazardous material removal of over 700 parcels in Ventura County. Task under this contract include debris removal monitoring, air sampling and monitoring (community and

YEARS OF EXPERIENCE

17

AREAS OF EXPERTISE

Program / Project Management

Wildfire Fire Assessment

CDBG-DR

Emergency Response

Oil Spill Response

Lead and Asbestos

Radiation

KEY TRAINING/ CERTIFICATIONS

40-hour OSHA HAZWOPER with 8-hour Refreshers

Incident Command System Training (100, 200, 300, 301, 400, 700, 800)

IATA Dangerous Goods Shipping Certified

EPA Air Monitoring for Hazardous Materials 165.4, 2007 and 2005 EPA RCRA Compliance and Enforcement Workshop

EPA Sampling for Hazardous Materials 165.9

EDUCATION

B.S., Fisheries and Wildlife Science, Penn State University - 2003

personal), soil sampling and evaluation, site assessment and documentation, financial tracking and invoice reconciliation, data management, erosion plan review and oversight of implementation, and health and safety.

Florida, Texas, South Carolina, North Carolina CDBG Programs (March 2018- January 2020)- Mr. Burns serves as an Environmental Inspection Program Manager for the Lead Based Paint Risk Assessors, Asbestos Inspections, and all other environmental inspections covered under these three CDBG Programs. Mr. Burns is responsible for overall management of over 20 lead-based paint risk assessors completing risk assessment throughout all three states in relation to Hurricane Irma and Matthew.

Restore Louisiana Program (RELA)-CDBG-DR, 2017 to July 2018. Mr. Burns served as an Environmental Inspection Program Manager for the Lead Based Paint Risk Assessors following HUD Guidelines. Mr. Burns is responsible for overall management of 20 lead-based paint risk assessors completing risk assessment throughout Louisiana in relation to the floods of 2016. During this program Tetra Tech completed over 6,000 lead-based paint risk assessments in under 1 year.

Northern California (NORCAL) Wildfire Response (November 2017-September 2018). Environmental Program Manager responsible for environmental portion of work associated with the cleanup of over 8,000 homes. Responsible for hazard assessments on each parcel, background soil sampling and confirmation soil sampling, air sampling and monitoring, and OSHA personal air sampling. Mr. Burns is also responsible for overall coordination, staffing, and logistics for this four-county response, overseeing over 100 staff in the field collecting data.

Detwiler Fire (August 2017-May 2018) and Helena Fire (September 2017-May 2018) California Fire Response. Environmental Lead responsible for designing approach, coordinating staff, directing health and safety operations, and responsible for overall completion of environmental portion of the project. During these responses Tetra Tech was responsible for assessing (hazard assessment) over 200 parcels of burned area in Northern California. Tetra Tech also conducted OSHA personal sampling and air monitoring and sampling during all operations to ensure protectiveness to public health during cleanup operations. Tetra Tech assessed each parcel for radiation, VOCs, lead, asbestos, and debris estimates.

Clayton Valley Fire California Fire Response, October 2016-2017. Environmental Lead responsible for designing approach, coordinating staff, directing health and safety operations, and responsible for overall completion of environmental portion of the project. During this response Tetra Tech was responsible for assessing (hazard assessment) over 200 parcels of burned area in Northern California. Tetra Tech also conducted OSHA personal sampling and air monitoring and sampling during all operations to ensure protectiveness to public health during cleanup operations. Tetra Tech assessed each parcel for radiation, VOCs, lead, asbestos, and debris estimates. All documentation was collected with collector and I-form technology and uploaded to a central data base to generate deliverable as work was completed daily.

Lake Isabella California Fire Response, August 2016-2017. Environmental Lead responsible for designing approach, coordinating staff, directing health and safety operations, and responsible for overall completion of environmental portion of the project. During this response Tetra Tech was responsible for assessing (hazard assessment) over 300 parcels of burned area in Southern California. Tetra Tech assessed each parcel for radiation, VOCs, lead, asbestos, and debris estimates. All documentation was collected with collector and I-form technology and uploaded to a central data base to generate deliverable as work was completed daily.

U.S. EPA START Region 3 Project Manager, (June 2008-September 2009). Mr. Burns oversaw the management of several US EPA site assessments and removals under the START III Region 3 Contract. During these projects, Mr. Burns was responsible for work plans, multiple sampling and analysis plans, trip reports, and case study reports. Mr. Burns was responsible for cost control and tracking, staffing, and overall manament of these projects ranging in cost from $25,000 to $250,000.

EXPERIENCE SUMMARY

Mr. Schaefer has over 32 years of experience in a wide array of large-scale disaster recovery program management, process improvement and business consulting applications. As Director of Health & Safety (H&S) of Tetra Tech's post-disaster services, Mr. Schaefer is in charge of overall H&S policy guidance and implementation. Mr. Schaefer has extensive knowledge of OSHA regulations. He is OSHA 40-Hour HAZWOPER certified and an authorized OSHA Construction Safety Outreach Trainer. Over the past several years, Mr. Schaefer has provided H&S program management for disaster recovery projects in response to Hurricanes Harvey, Irma, Maria, Michael, and Sally, California wildfires, and COVID-19, to name a few. Mr. Schaefer also managed and provided oversight for field operations following Hurricanes Charlie, Francis, and Jeanne; Katrina, Wilma and Rita; Gustav, and Ike.

Director, Health & Safety (July 2018 – Present)

Tetra Tech, Inc. Disaster Recovery (TDR)

Mr. Schaefer is responsible for the overall TDR Health and Safety Program, including health and safety planning, job hazard analyses, policies and procedures for creating and managing a safe working environment through hazard elimination, substitution, engineering and administrative controls and personal protective equipment and strict adherence to OSHA regulations. Additionally, he manages professional and general liability and worker's compensation claims and incident reporting.

In this capacity, Mr. Schaefer has managed employee health and safety in hurricane recovery efforts such as Harvey, Irma, Maria, Michael, Laura, Sally, Delta and now Zeta; fire projects such as the Mendocino Complex Fire and Camp Fire in Butte County, California; and other nuanced projects such as the Homeless Medical Isolation and Recovery Center (HMIRC) in Houston, TX which provided assistance to COVID-19 positive homeless persons.

In Puerto Rico, Florida and Texas, Mr. Schaefer managed the health and safety of employees conducting Tier II site safety inspections and environmental sampling for lead-based paint and asbestos on damaged private properties as part of their CDBG-DR programs.

Since the COVID-19 outbreak, Mr. Schaefer has worked with other Tetra Tech divisions to maintain an infection-free environment for both our office staff and field operations, managing all TDR employee illnesses from onset through recovery and return to work clearance. Mr. Schaefer continues to refine COVID-19 protocols for changes to CDC-guidance and prevailing local requirements that vary among impacted areas in which we serve.

YEARS OF EXPERIENCE

32

EDUCATION

Masters Of Science in Industrial Engineering, University of Central Florida, Orlando, Florida, May 1995

Masters Of Science in Systems Management, Florida Institute of Technology, Melbourne, Florida, December 2002

PROGRAM EXPERIENCE

- Single Family Rehabilitation, Reconstruction & Relocation Programs
- Housing Counseling
- Home Energy Resilience

AREAS OF EXPERTISE

- Health and Safety
- Start Up of Operations
- Disaster Recovery Operations
- Post-Disaster Environmental Services
- Energy & Utilities
- Strategic Planning
- Engineering
- Closing Coordination
- Project Management
- Construction and Statutory Compliance
- Environmental Procedures
- Long-Term Compliance and Monitoring
- Quality Assurance/Control
- Issue Tracking and Fraud, Waste & Abuse Coordination
- Document Management and Records Retention
- Ramp-Down & Program Close-Out
- Grant Recapture

CERTIFICATIONS

- OSHA 40-Hour HAZWOPER
- OSHA 29 CFR 1910.134 - Respiratory Training
- Authorized OSHA Construction Safety Outreach Trainer

Program Manager (November 2012 – April 2016)

Tetra Tech, Inc. (Formerly Leidos Engineering, LLC)

For 3 years, Mr. Schaefer managed a $200 million local government funding program supplying funds for energy and building resiliency for residential, commercial and industrial properties in participating Florida cities and counties. Program implementation required vetting property owners against statutory requirements, assessing fund availability on a by-owner basis in accordance with program guidelines, reviewing contractor estimates for reasonableness, documenting completion, filing and recording assessments with local taxing authorities. Mr. Schaefer's responsibilities included:

- Managed team serving the Florida PACE Funding Agency – a local government providing $200 million in available statutorily-based financing to property owners for energy efficiency, renewable and wind resistance improvements to their properties, the financing for which is repaid through a non-ad valorem property tax assessment;
- Responsible for presenting PACE financing program to Florida legislators, city and county commissioners, county constitutional officers, local government staff, contractors, residential and commercial property owners, realtors, insurance agents, and other key stakeholders;
- Cultivated relationships with a wide array of stakeholders and building a strong support network in a new market from scratch through personal commitment and integrity; and
- Managed the development of training materials, program tools, marketing materials; marketing tactics and strategies, process and procedures for the deployment of PACE financing to 14 counties and 12 cities in Florida representing approximately 45% of the subscribed market at the time Leidos unwound its involvement in the Program.

Vice President, Business Operations (January 2005 – July 2009)

Beck Disaster Recovery (BDR, a subsidiary of R. W. Beck, Inc.)

As VP of Business Operations, Mr. Schaefer was responsible for the development of field operations processes and procedures for BDR's disaster response and recovery efforts. Mr. Schaefer was responsible for field deployment and ongoing operations, equipment deployment, health and safety, human resources, legal compliance, liability and claim management.

Mr. Schaefer personally managed and provided operational oversight for hurricanes Charlie, Francis, and Jeanne in Orlando, Florida; Katrina, Wilma and Rita in Miami and South Florida; Gustav in City of Plaquemine, Louisiana and Ike in the Greater Houston area and Galveston, Texas.

Mr. Schaefer developed an internal field auditing function to ensure adherence to corporate policies and procedures, and managed firm's response to three Department of Labor audits.

3. Approach to Scope of Work

1. Project Understanding

The City of Fort Lauderdale, FL (City), is a popular tourist destination and the largest city in Broward County with a population of approximately 182,000. The City is home to numerous museums, marinas, campsites, night clubs, beautiful beaches, and Port Everglades, which is the third largest port in the World based on annual visitors. The City attracts millions of visitors each year, bringing in millions of dollars in hotel development tax. The City is no stranger to the damaging impact that a tropical weather system can have on its residents, beaches, tourism industry, business, and economy.

With its location on the east coast of Florida, the City must maintain a constant level of preparedness as the possibility of being impacted by a severe weather event is ever present. Over the last 150 years, a tropical weather event has come within 60 miles of the City of Ft. Lauderdale over 65 times. Historical data shows that the City of Fort Lauderdale suffers a direct hit from a hurricane event approximately every 5.6 years. In order to ensure the safety of its residents, as well as preserve the tourism and local economy, the City is seeking to secure an experienced pre-positioned contractor to provide debris monitoring services, in preparation for future disaster events and to maximize available Federal Emergency Management Agency (FEMA) and Federal Highway Administration (FHWA) funding.

Fort Lauderdale Key Statistics

182,437 residents

38.6 square miles

4 DMS Sites

13 million* Annual visitors

**Greater Fort Lauderdale area*

Tetra Tech implements a best practices approach to disaster debris monitoring when planning for and responding to debris-generating events. Our team has gained unparalleled experience working on many of the largest FEMA PA eligible projects, including responses to Hurricanes Michael, Irma, Harvey, Matthew, Sandy, Ike, Wilma, and Katrina. Our team has assisted more local governments with debris monitoring efforts following natural disasters than any other firm in the nation. **Collectively, we have overseen and managed the recovery of over 160 million CYs of debris on behalf of over 300 public sector clients, resulting in excess of $8 billion in reimbursable costs to our clients.**

In addition, our understanding of the Florida Department of Transportation, Florida Division of Emergency Management (FDEM), FEMA, FHWA, U.S. Department of Housing and Urban Development (HUD), NRCS, and other reimbursement agencies' requirements for eligibility, documentation, and reimbursement will help the City to receive the maximum reimbursement allowed following a disaster.

Tetra Tech's capabilities and methodology to drive a successful project for the City, includes:

Past Experience and Relationships in Broward County: Our unique understanding of the City's infrastructure and operational needs following a disaster, as demonstrated by our previous experience providing disaster debris monitoring services for the City of Ft. Lauderdale and within Broward County following multiple hurricanes.

Strong Beach, Marine, and Vessel Removal Expertise: Our team has led many of the largest beach and marine debris removal programs in United States history. Our experience includes the removal of hundreds of vessels from the environmentally sensitive Florida Keys; debris mapping utilizing our proprietary side scan sonar; and marine and vessel debris removal. More recently, our team worked on post-Hurricane Matthew waterway debris removal projects for Beaufort

County, SC and following Hurricane Irma for Collier County, FL and under our FDEP contract for the Brevard, Lee, Monroe, and Volusia Counties.

Continuous Coordination and Communication with City Officials and Stakeholders: A dedicated project management team will be appointed to coordinate with City's throughout the year, not just during times of activation.

Immediate Response Capabilities: Tetra Tech has disaster recovery personnel and 22 offices throughout the state and utilizes an immediate response staffing and logistics plan that follows the Incident Command System (ICS) structure, allowing City to return to the business of running day-to-day operations.

Focus on Hiring Locally: Tetra Tech focuses on hiring and training local residents, benefiting the local economy, and reducing mobilization and transportation costs.

Project Transparency and Real-time Reporting: Our proprietary ADMS technology, RecoveryTrac™, provides detailed reporting systems and mapping capabilities that are available in real-time to the City and tailored to the City's data needs.

Maximum Reimbursement for the City: Tetra Tech's stringent quality assurance program and adherence to reimbursement agency requirements for eligibility, documentation, and reimbursement that will help City receive and retain the maximum reimbursement allowed following a disaster

2. Automated Debris Management System (ADMS) Platform to Be Used

RecoveryTrac™

Our team has spent years on research and development to streamline the debris collection documentation process, with a focus on minimizing the cost to our clients while improving the visibility of debris project operations. RecoveryTrac™ is the result of these efforts. RecoveryTrac™ is a scalable and fully featured disaster management application designed to address the operational challenges faced during a disaster recovery project.

Our proprietary ADMS technology, RecoveryTrac™, is one of only three systems validated by the U.S. Army Corps of Engineers (USACE). The system provides real-time collection of data and offers multiple solutions to data management, reporting, invoice reconciliation, and project controls that cannot be achieved with a paper-based program.

Tetra Tech has implemented RecoveryTrac™ ADMS technology on our last 200 FEMA PA-eligible projects. On these projects, our clients and FEMA found this state-of-the-art technology to increase efficiency and improve the management of debris removal efforts.

Tetra Tech's RecoveryTrac™ ADMS system is regarded as the #1 debris tracking system in the industry for the following reasons:

- **Most Broadly Tested ADMS in the Industry –** RecoveryTrac™ is a proven system that has been used to execute the largest USACE activations involving ADMS technology, including the State of California NORCAL Fire response and the State of Georgia Hurricane Michael statewide activations. During simultaneous response to Hurricanes Harvey and Irma in 2017, Tetra Tech deployed approximately 6,000 ADMS devices to collect and manage data for over 100 projects. **No other system has tracked and documented as much debris as RecoveryTrac™.**
- **Stable and Secure ADMS System –** RecoveryTrac™ is the industry leader in secure data systems. The RecoveryTrac™ system is securely hosted in the Microsoft Azure Government high-availability, cloud-based data center with restricted access and transaction-level auditing. The database is continually backed up and immediately replicated to an off-site location. The database is geospatially based and is maintained and synchronized with the reporting database in near real-time to maximize system performance, availability, and security.

- **Unmatched Flexibility to Meet the Needs of Any Client –** The system is designed to be fully customizable and allows for multiple data collection methods. Tetra Tech has invested heavily in research and development in efforts to streamline the debris collection documentation process with a focus on minimizing the cost to our clients and improving the visibility and transparency of debris project operations. RecoveryTrac™ is the result of these efforts.
- **Unrestricted by Hardware –** Because RecoveryTrac™ utilizes readily available hardware, there are no restrictions to the amount of ADMS units our team can provide. Our team stocks thousands of units and can expand to fit any client's needs, including multiple simultaneous activations.

2.1.1 Benefits of RecoveryTrac™

Ability to Respond. Combined with the on-hand inventory of thousands of handheld devices and the ability to rapidly procure additional equipment through preferred vendor relationships, the County can rely on our mobilization strategy for zero-day activations in disasters covering large areas with little or no-notice. **The on-hand inventory can be on-site and ready to use within 24 hours of a notice to proceed,** and additional needs can be met quickly (in most cases, 72 hours or less).

Simple and Intuitive. A key foundation of our mobilization strategy is the ability to quickly hire and train local residents and begin debris removal operations. The mobile application is simple to understand and intuitive, allowing most users to begin using the device once the standard monitor training is completed.

Cost Effective. RecoveryTrac™ combines the advantage of automation and the desire of our customers to control costs by utilizing widely available commercial equipment and increasing the simplicity of operations.

Reliable and Stable. Based on the Android operating system, RecoveryTrac™ is secure and reliable. This minimizes the interruptions in field operations due to technical difficulties and reduces the number of support personnel required to maintain the system.

Technical Support. RecoveryTrac™ is designed to be self-repairing when possible; most support needs are resolved by field supervisors who are able to reach field monitors within 15–30 minutes in most cases. In addition, we have dedicated technicians at disposal sites and provide a field service center to maintain and repair equipment.

RecoveryTrac™ Key Facts

- Owned and operated by Tetra Tech
- Thousands of mobile units on-hand and ready for state-wide multi-district mobilizations
- Meets USACE specifications for electronic debris monitoring handhelds
- Real-time situation awareness of field resources and efficient direction to support County priorities
- Real-time GIS web services for EOC information and visualization systems
- Capable of collecting data regardless of cellular service
- Automated photograph and GPS capture
- Provides reports and pass map tracking in real-time
- Minimizes chance of fraud through real-time monitoring
- Minimizes data entry and human error
- Expedites invoice reconciliation
- Intuitive and user-friendly

Truck Tracking. Our system is capable of providing with real-time location data for debris hauler assets. This translates into the ability to manage assets to those hardest hit locations or distribute assets more evenly based on issues such as first-pass completion, traffic patterns, and hot spots.

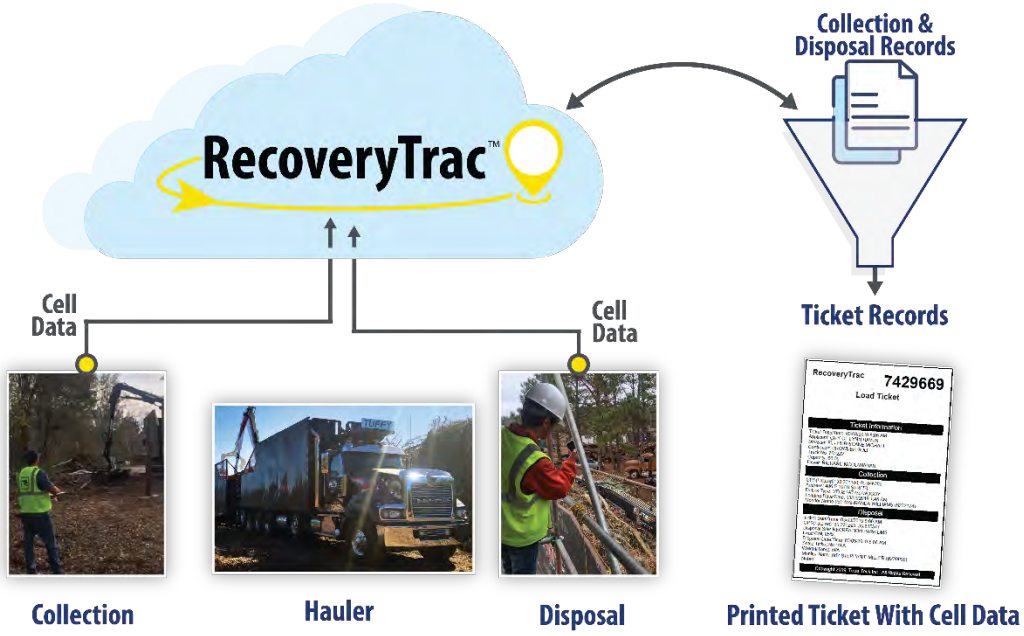
Real-Time, Customized Reporting. The key to successful management of a debris project is the timely availability of relevant information needed to make sound decisions and respond to anomalies before they become issues. Our powerful reporting engine allows the user to monitor contractor performance, track damages, track street-by-street debris removal progress, and identify and resolve potential problems as they happen. The geospatial reporting systems within RecoveryTrac™ provide real-time information that raises the bar for post-disaster project management.

2.1.2 The RecoveryTrac™ Process

The steps of the RecoveryTrac™ process are as follows:

STEP 01	The process begins with debris hauler truck certification using the handheld devices. Handheld devices are provisioned and assigned to both field and debris site/tower monitors.
STEP 02	A truck certification form is printed with a unique electronic bar code and provided to the driver as well as our debris site/tower monitor(s).
STEP 03	Field monitors begin a ticket by scanning the truck certification bar code to open a control ticket and then begin to record waypoints (debris pile pick-up locations) on the handheld device as the truck is loaded.
STEP 04	When the truck is full, the field monitor selects the debris type and scans the control ticket to assign the load a unique number.
STEP 05	The truck then proceeds to the disposal site. The collection data is uploaded to a server via cellular connection, and using a process called Look Ahead, the collection ticket information is made available to the disposal monitor's handheld device before the truck arrives.
STEP 06	The control ticket is provided to the driver and taken to the DMS, where it is scanned by a debris site/tower monitor.
STEP 07	The debris site/tower monitor confirms the truck and debris type and enters the load call.
STEP 08	Finally, the disposal load ticket is printed, and data is uploaded to the system, where it can be utilized in real-time reporting systems.

Even when there is no cellular connection, the handheld devices continue to operate in connected mode; however, the data is stored on the device until a data connection is restored. The device periodically searches for this connection, and when services are device automatically uploads the stored ticket data.



2.2 RecoveryTrac™ ADMS Features

Tetra Tech brings significant experience and understanding in the design and build of disaster debris removal data management systems that offer data collection, storage, sharing, analysis, and reporting.

Because of our previous experience, we have several ready-to-use components already built and ready to deploy. These components can be quickly repurposed saving time and cost while ensuring field work starts quickly. Some examples of these existing capabilities and tools include:

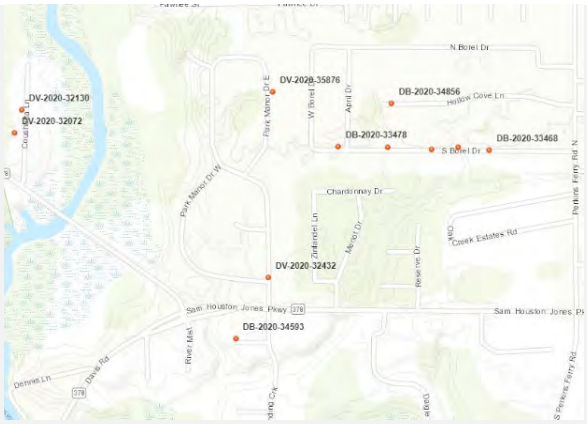
Our operational and data experience with disaster debris monitoring, combined with the best GIS and data professionals in the industry, results in **top-shelf solutions to the most complicated data and tracking needs.**

Industry-standard **ArcGIS Feature** Services delivers RecoveryTrac™ ADMS data and serves as foundational building block for the applications.

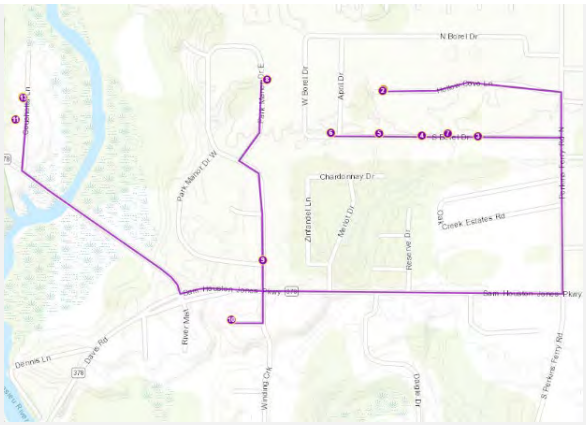
Services:

- RT/RecoveryTrac_DebrisAuditData_RT2020 (FeatureServer)
- RT/RecoveryTrac_DebrisAuditData_RT2020 (MapServer)
- RT/RecoveryTrac_DebrisRemovalData_RT2020 (FeatureServer)
- RT/RecoveryTrac_DebrisRemovalData_RT2020 (MapServer)
- RT/RecoveryTrac_MonitorLocations_v1 (MapServer)
- RT/RT2018_ProjectBoundaryData_v1 (FeatureServer)
- RT/RT2018_ProjectBoundaryData_v1 (MapServer)
- RT/RT2018_ProjectZoneData_v1 (FeatureServer)
- RT/RT2018_ProjectZoneData_v1 (MapServer)
- RT/RT2018_SiteObservationsIncidentData_v1 (FeatureServer)
- RT/RT2018_SiteObservationsIncidentData_v1 (MapServer)
- RT/RT2020_ProjectZoneData_v1 (FeatureServer)
- RT/RT2020_ProjectZoneData_v1 (MapServer)

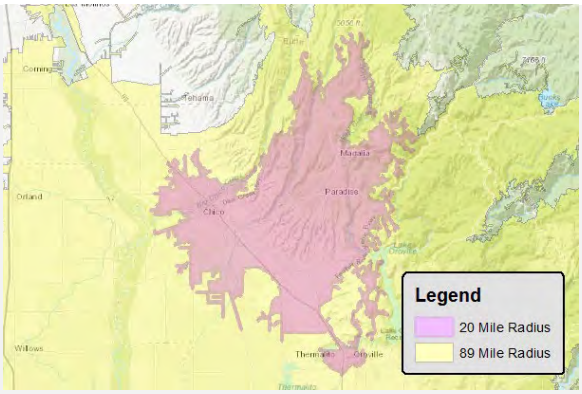
Initial Work Surveys document results of initial surveys to quickly collect, display, and summarize data into actionable operations planning. This data, including photographs, can be used to organize and deploy resources to improve speed and efficiency of the operation.



Work lists and **optimized routes** can be generated by RecoveryTrac™. As the routes are completed, the locations are marked complete.

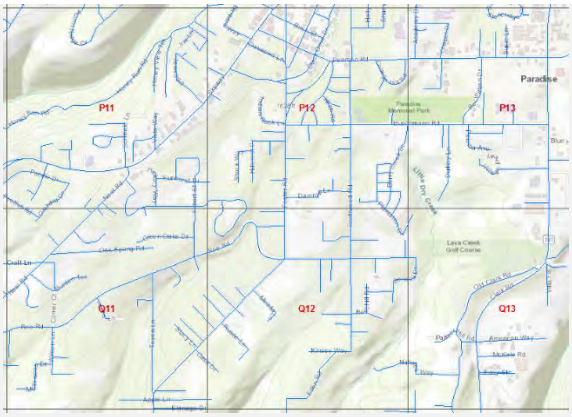


The **Driving Distance Analysis** tool is used to calculate estimated distance and drive time based on the existing road network. This planning tool is used as a parameter to design the shortest route, work list planning, and other operational factors.

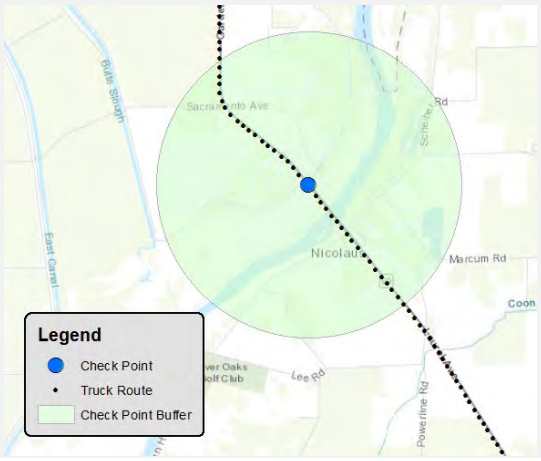


The **Standardized ROW Grid Index** layout is available in several formats, including GIS Mapping applications, mobile data collection apps, and hard copy maps.

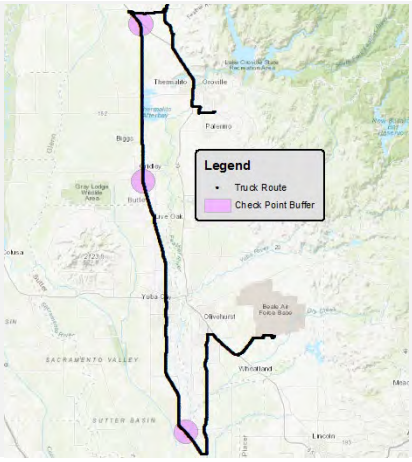
Map segment areas are configurable for size and allow attribute modification for tasks, including contractor, quality, and safety review tasks.



An **automation tool** built to validate routes taken to TDSRS/DMS. When a vehicle enters a checkpoint buffer area, the position record is annotated as passing the checkpoint. Route maps can be created, along with custom reporting as specified by operational requirements.



Fleet tracking data provides complete route information. The data can be made available to show live tracking or view route history. Transportation analysis services are available, or data exports can be provided for City requests.



3. Operational Scheduling Methodology

3.1 General Response Timeline

Based on Tetra Tech's understanding of the City and their needs, we have developed a draft mobilization schedule with key project management tasks in chronological order. The timeline is based on a typical activation; however, Tetra Tech is prepared to work with the City to adjust the timing of the specific elements below to meet the City's needs.

Prior to an event with warning (such as a hurricane), our team will begin monitoring the landfall of any tropical system at H-96 and will coordinate via conference call with the City. Following an event without warning (such as tornadoes or flooding), Tetra Tech will begin response at H-0.

Exhibit 3-1: Operational Response Timeline for Debris-Generating Events

Time	Task	Deliverables/Milestones
Pre-Event Planning		
Pre-event (normal conditions)	**Meet with the City to review plans and documents**	• Conduct annual pre-event meeting with the City and debris contractor • Review the City's disaster recovery contracts for FEMA compliance • Update critical documents and files, including any GIS files • Contact the City and initiate daily conference call
H-96	**Review capabilities and resources**	• Determine resource requirements from debris model • Review the City's emergency policies and contracts • Establish contact with the City's debris hauler and ensure Tetra Tech has the most up to date copy of the debris hauler contract
Incident Planning		
H-72	**Execute responsibilities and activate contracts**	• Review possible critical areas of concern, hospitals, major transit systems, historic districts, environmental issues, and critical infrastructure • Review protocols for private property, gated communities, and public drop-off sites • Review debris management site (DMS) locations and follow up with the State on permitting procedures • Estimate equipment requirements and DMS capacity to haul and stage debris • Prepare ADMS technology for mobilization • Conduct regular meetings with City staff as requested • Confirm staging location and begin mobilization of resources
H-48	**Monitor storm track and continue preparations**	• Mobilize project assets and begin base camp coordination and logistics (food, water, housing, etc.) with the City and Tetra Tech headquarters (if necessary) • Review list of priority roads and the operational plan • Obtain GIS files for municipalities that the City will assist with debris removal • Continue to update and gather updates from the City's debris hauler • Save all critical documents and files to the network drive, USB drive, and laptop hard drive
H-24	**Prepare final reports**	• Certify emergency road clearance equipment (in coordination with the City's debris hauler) • Determine emergency road clearance priorities
H-0	**ARRIVAL OF NOTICE EVENT/INITIATE RESPONSE TO NO-NOTICE EVENT**	
Execution		
H +24	**Emergency push**	• Receive notice to proceed with not to exceed • Begin emergency push • Maintain time and materials (T&M) logs for push equipment • Coordinate with the City to conduct preliminary damage assessments and road closures (if requested) • Supervisors report to pre-designated locations and prep staff on project

Time	Task	Deliverables/Milestones
H +48	**Emergency push/ damage assessment**	• Begin establishing ADMS infrastructure • Begin recruiting and training monitors, project coordinators, and data staff • Initiate opening of DMS locations • Follow up with State-level environmental regulations on debris permits (if required) • Work with the City to establish public information protocols to respond to concerns and comments • Continue emergency push • Continue preliminary damage assessment • Develop debris cost estimate required for presidential disaster declaration • Develop operational plan for disaster-specific issues • Refine health and safety plan for disaster-specific issues
H +72	**Disaster debris vehicle certification/ site preparation**	• Begin hauling truck certification • Install ADMS tower monitor infrastructure • Train monitors on policies, ADMS, and safety • Open public drop-off sites as requested
H +96	**Begin debris collection monitoring**	• Assign monitors to trucks • Assign supervisors to monitors • Hold morning and afternoon meeting with City staff and debris hauler • Implement QA/QC procedures
Week 1+	**Right-of-way (ROW) debris collection monitoring**	• Continue ROW collection • Address household hazardous waste (HHW) issues (if critical) • Issue daily reports/GIS maps • Hold daily meetings with the City, hauler, and/or State/FEMA as required • Staff citizens debris management hotline (if requested) • Define supplemental programs required (private roads, HHW) and prepare eligibility request
Week 1+	**Data management and invoice reconciliation**	• Provide ADMS reports and real-time monitoring access • Establish client GeoPortal to provide insight into project progress • Review truck metrics provided by RecoveryTrac™ • Initiate weekly reconciliation • Initial payment recommendations with retainage
Week 1+	**Reimbursement support/grant administration (FEMA, NRCS)**	• Prepare damage/cost estimates • Compile supporting documentation (debris permits, debris contracts, etc.) • Liaise with local FEMA region officers, state-level emergency management representatives, U.S. Army Corps of Engineers (USACE), etc.
Week 2+	**Special projects (if required)**	• Waterway debris removal • Private property debris removal (PPDR) • Public drop-off sites • HHW • Mud/silt/sand removal (from storm drains, ditches, etc.) • Identify areas of operational concern and make disaster-specific recommendations to FEMA to improve efficiency
Week 3+	**Financial recovery assistance staff engaged (if requested)**	• Facilitate kickoff meetings with primary stakeholders • Draft a PA work plan • Conclude/review preliminary damage assessments • Gather documentation for project worksheet (PW) development • Identify opportunities for mitigation • Conduct site visits
Project Closeout		
Project completion	**Document turnover/closeout**	• Final reconciliation • Retainage release • Release hard copy files • Provide electronic database • Assist with PW development • Assist the City with long-term reimbursement • Audit assistance • Appeal support if necessary

4. Field Collection Monitoring Operations

The Tetra Tech debris monitoring program includes the following:

Exhibit 3-2: Tetra Tech Daily Field Operations

1. Work Scheduling

Tetra Tech will coordinate with the debris removal contractor's project manager to estimate required staffing numbers for the following day. To be responsive and mitigate overstaffing, Tetra Tech requests that the debris hauler release the next day's schedule by 5 p.m.

2. Check-In

Field monitors report to a staging location prior to the commencement of daily operations for a briefing by the project manager or field supervisors and for the distribution of safety gear, map books, and ADMS handheld devices to document debris removal operations.

3. Deployment

A field monitor is assigned to one loading unit or to a leaner and hanger removal crew. In instances where leaner and hanger crews have multiple saw operators, the cut crew can request the addition of a monitor (this typically happens when a cut crew can complete over 60 hazard removals per day).

4. Field Supervision

Responsibilities of the field supervisor monitor include training, QA/QC of work being performed, verifying load ticket accuracy, and responding to field monitor and debris contractor issues. Tetra Tech utilized National Incident Management System supervisor ratios for span of control and efficiency of operations.

5. Field Documentation

Field monitors will verify proper loading of debris and will document that contractors and their subcontractors adhere to local, state, and federal regulations and safety guidelines. Debris removal procedure discrepancies are reported to the supervisor. If a field monitor feels a justifiable need to stop operations, the monitor will refrain from issuing a ticket until the debris hauler supervisor and a Tetra Tech supervisor determine an appropriate action.

6. Daily Closeout

At the close of operations each day, all field monitors will report to the staging area to clock out, turn in their ADMS handheld device, and receive a debrief from field supervisors.

Potential Delay	Tetra Tech Strategy
Inability of a debris contractor to respond with sufficient equipment	Tetra Tech will provide burn rate analysis to verify the proper equipment is being provided. This will be adjusted as more accurate debris estimates are available.
Leapfrogging by the contractor (cherry picking work being performed)	Leapfrogging can be detrimental to the efficiency of operations and will be reported by Tetra Tech.
Delayed invoices by the contractor	Tetra Tech will work to make the contractors aware of an appropriate timeframe for invoicing and will communicate with the City if deadlines are not being met.
Not adjusting deadlines for collecting debris and work schedule that is based on an update-to-date estimated work to be completed	As damage estimates become more accurate (as is typical throughout the process), Tetra Tech will work with City officials to adjust the timeline to appropriately reflect the changing estimates.

In addition, there are events out of the control of all parties that could negatively impact a debris removal operation (for example, inclement weather). In the event any of these circumstances occur, Tetra Tech will work closely with the City to refine timelines and support an expeditious recovery for the City.

5. Emergency Push

During the emergency push period, debris removal contractors coordinate with City crews to clear blocked roadways for emergency vehicle passage. Tetra Tech can support the City with emergency push efforts. Tetra Tech services may include the following:

- Coordination with the City to conduct preliminary damage assessments and road closures
- Document blocked roads that require immediate clearance
- Help staff maintain maps or databases to track road clearance progress and other essential tasks, as requested
- Administer the sign-in and sign-out of labor and equipment to track time and materials (T&M) charges
- Maintain reimbursement documentation of emergency push work
- Establish public information protocols to respond to concerns and comments

6. Debris Estimate Methodology

It is critical to understand estimated quantities of debris to adequately plan for project operations and mobilization. Tetra Tech has found that rather than relying on a single approach, a combination of debris-estimating methodologies generally produces a more accurate estimate. Tetra Tech uses the following debris-estimating methodologies:

- **Data-driven debris-estimating model.** Tetra Tech has developed a data-driven debris-estimating model that takes into consideration factors such as hurricane strength category, estimated storm surge, coastal households, amount of vegetative cover, dockage, and other unique factors to develop debris estimates for a community.
- **Field survey.** "Boots on the ground" Tetra Tech staff will also work to estimate the expected volume of debris. Tetra Tech's experienced field staff complete windshield surveys, and the information collected is aggregated by an experienced project manager to generate field survey-based debris estimates.
- **Aerial surveys.** Finally, Tetra Tech can develop debris estimates using Unmanned Aircraft Systems (UAS, or more commonly drones) to estimate debris quantities from inaccessible areas. Tetra Tech drones can capture topographic survey data, including orthophoto, contour, digital terrain, and dense point cloud data to develop estimated volumes of debris within an impacted community.

6.1 Surveying Affected Areas for Special Situations or Emergencies

Tetra Tech will customize the RecoveryTrac™ ADMS system to meet the data capture needs of the special situation or emergency surveys outlined in the RFP (including identifying tree stumps, root balls and associated cavities, hazardous trees, construction and demolition debris, or other potentially hazardous situations). Benefits of using digital data capture and custom electronic forms include:

- **Integration with applications:** RecoveryTrac™ survey tool can be integrated into Survey123, iForms, Collector, and other standard geospatial survey tools typically used for surveying affected areas.
- **Implementation of required fields:** Tetra Tech will designate required fields that must be completed on forms before the user can move on to the next data capture event. This avoids incidents of failure to capture key information in the field due to user error.
- **Standardized data entry:** Tetra Tech will use drop-down menus and pick lists whenever practical to standardize data capture. This approach avoids use of synonyms and personalized nomenclature that can hinder data analysis and cause confusion during data interpretation.
- **Direct correlation with project-specific database:** Tetra Tech's electronic forms and custom database are developed in concert, allowing for direct mapping between data fields captured in electronic forms and those used within the database. These tools facilitate rapid and accurate upload and storage of data, without requiring manipulation of data.

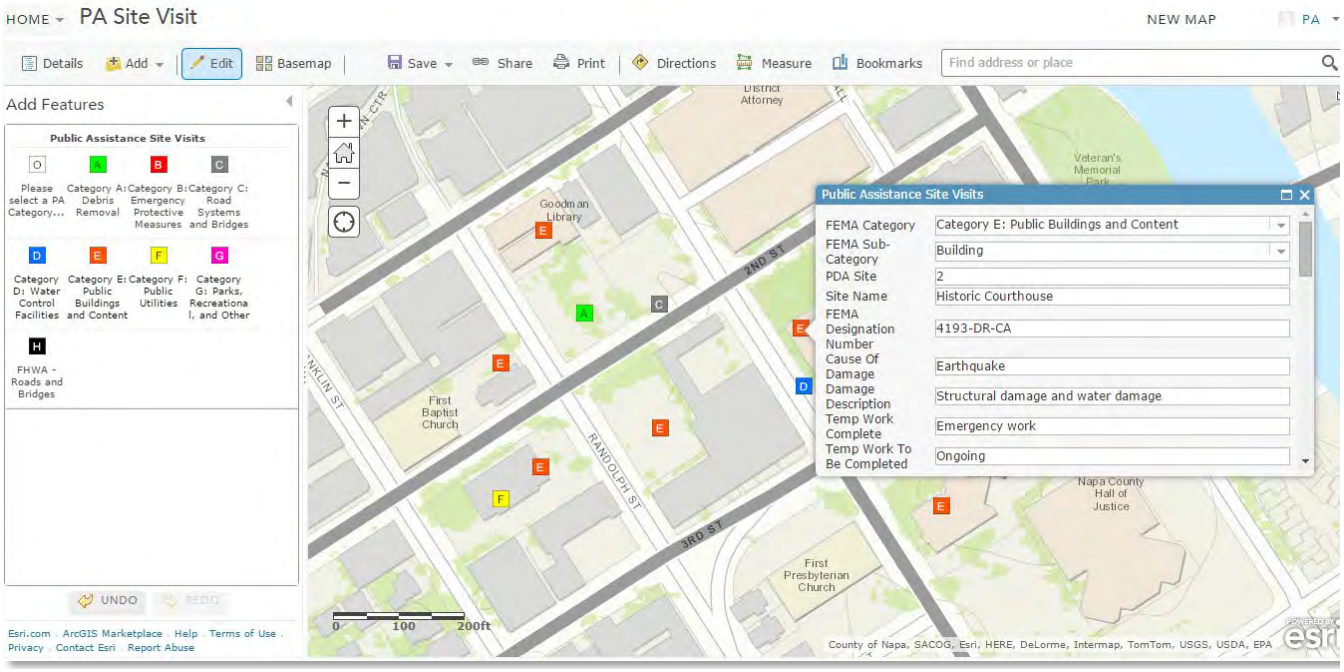
After surveying and logging findings of special situation or emergency surveys, Tetra Tech maintains a list of potentially hazardous locations and situations. The RecoveryTrac™ database is used to coordinate and track the appropriate dispatch of staff and equipment to remediate the hazard, as well as reporting to the City on the status of the hazard, actions taken, and post-event status.

7. Damage Compliant Tracking/Reporting

Following a disaster, the City will need to evaluate citywide damages and identify priorities. Preliminary damage assessments are a critical component to the City receiving a disaster declaration following a major debris-generating event. If tasked, Tetra Tech is prepared to supplement City staff and assist in conducting electronic damage assessments. Tetra Tech's ADMS technology, RecoveryTrac™, would be used to conduct damage assessments and collect supporting data, including photo documentation of damages.

The collected information would be reported real-time through web-based maps that depict damage assessment progress. Tetra Tech has recently supported damage assessment efforts for local governments following Hurricane Harvey in Texas and Hurricane Maria in Puerto Rico. A sample image of Tetra Tech's web-based damage assessment report is provided below.

Exhibit 3-3: Damage Assessment Report



8. Vehicle Certification

Tetra Tech uses RecoveryTrac™ to electronically certify all trucks used in an activation. Our team follows a proven vehicle certification procedure that complies with FEMA guidelines and results in maximum reimbursement. Our certification includes:

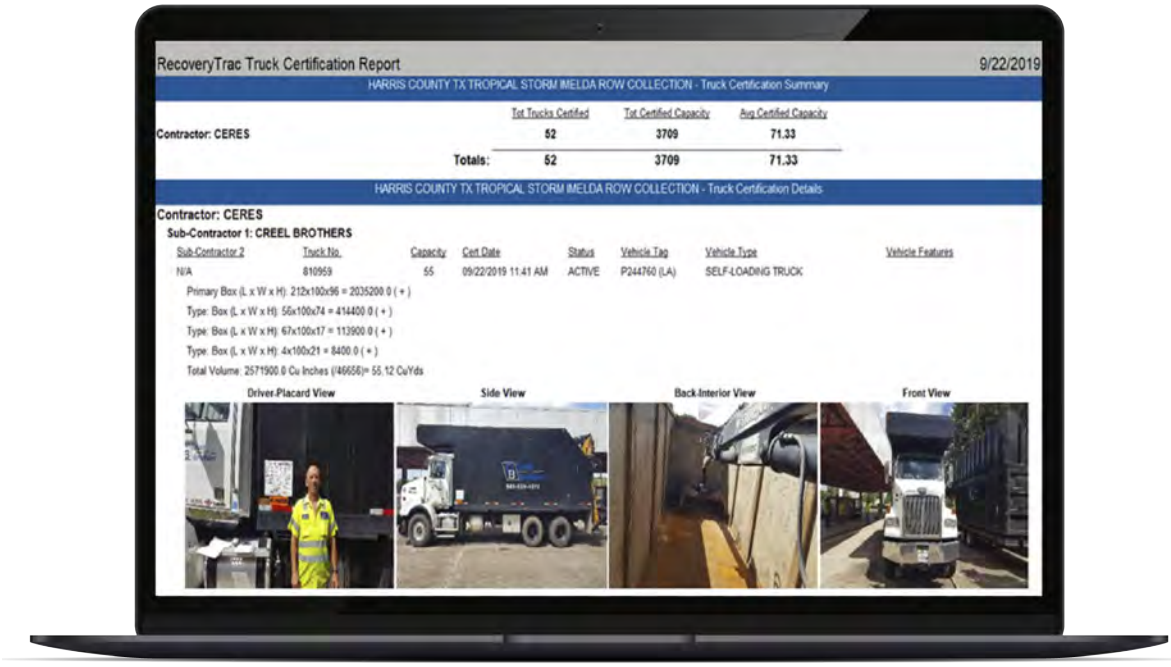
- Unique truck numbers for contractor crews and equipment
- Automated truck certification form, including:
  - FEMA guidelines on truck certification documentation and volume calculations
  - Barcode for automated ticket scanning
- Vehicle notations on the truck certification form and vehicle placard, informing tower monitors of sideboards, tailgates, or other modifications
- Photographs of vehicles, vehicle cavities, and drivers
- Periodic spot checks and recertification of trucks to identify trucks altered after initial certification

Benefits of using Tetra Tech's mobile truck certification application include:

- Electronic volume calculations
- Instantaneous upload to the RecoveryTrac™ database
- Immediate QA/QC checks to verify the truck certification calculations
- Automated photo-matching of truck and driver photographs

The truck certification application allows us to complete truck certifications in **30% less time than with a paper-based system.**

Exhibit 3-4: Truck Certification Report



8.1.1 Barge Certification

In some instances, waterway debris removal necessitates the need for barges to transport debris. These barges are certified similarly to trucks as described above, which allows movements and other project documentation generated during the debris removal process to be tracked to a specific barge.

9. Debris Management Site (DMS) Monitoring

Tetra Tech has industry-leading experience assisting local and state governments with locating and permitting DMS before a disaster event as well as post-disaster. Based on State environmental agency guidelines, DMS typically require baseline soil testing before use. Following the completion of work at the DMS, the baseline soil testing is used to verify site remediation is complete.

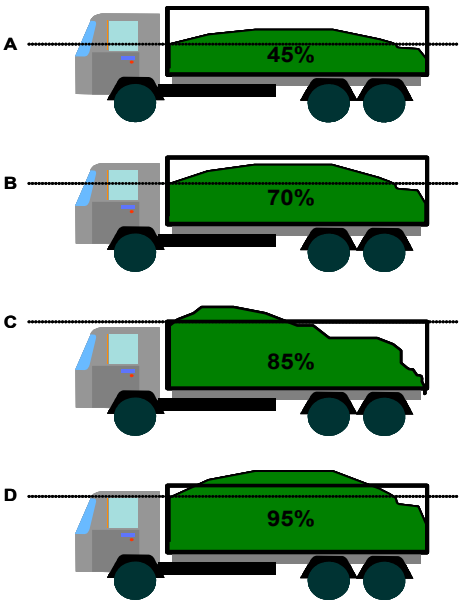
Tetra Tech will verify debris contractor load calls and documentation at the City's four pre-authorized DMS sites:

- Holiday Park
- Ft. Lauderdale Incinerator (Wingate)
- Snyder Park Transfer Station
- Mills Pond Park

As DMS are activated, Tetra Tech will provide a minimum of two disposal monitors per site, which may scale depending on site layout and operational needs. The disposal monitors will verify that the debris contractor passes through the DMS and will verify accurate and complete documentation. Several daily audits will be performed by project managers and supervisors to verify that load call data is consistent and accurate. Documentation kept by Tetra Tech DMS disposal monitors includes:

- **Load Ticket.** Documents that debris removal complies with all FEMA requirements.
- **Disposal Monitor Log.** Used as backup documentation as required by FEMA.
- **Scale Manifest Tickets.** For weight-based debris hauling contracts, Tetra Tech will digitize and catalog scale tickets.
- **Incident Report.** Tetra Tech will document property damage, arguments, unsafe practices, and injuries.
- **Photographic Documentation.** Tetra Tech disposal supervisors will photograph a DMS frequently to create a visual timeline of the site.
- **QA/QC of Field Tickets.** Disposal monitors review and verify collection monitors' work in the field.

Exhibit 3-5: Load Call Estimate Examples



Example A. The mounded portion of the load offsets the areas where the load drops below the fill line. Because the load includes light and medium debris, the load percentage estimate is 45 percent.

Example B. The mounded portion of the load offsets the areas where the load drops below the fill line. Because the load includes light and medium debris, the load percentage estimate is 70 percent.

Example C. The mounded portion at the front of the load offsets the area in the back where the load drops below the fill line. Because the load includes light and medium debris, the load percentage estimate is 85 percent.

Example D. The mounded portion of the load offsets the areas where the load drops below the fill line. Because the load includes light and medium debris, the load percentage estimate is 95 percent.

9.1 Residential Drop-Off Sites

Residential drop-off sites can be beneficial by allowing residents to address disaster debris on their property. However, to be eligible by FEMA, the City must verify that only their residents are using the drop-off site and prevent commercial debris contractors from disposing of debris at the residential drop-off site. Tetra Tech can assist the City in monitoring residential drop-off sites and verifying City residence before a resident unloads debris at the site.

10. Right-of-Way Collection Reporting

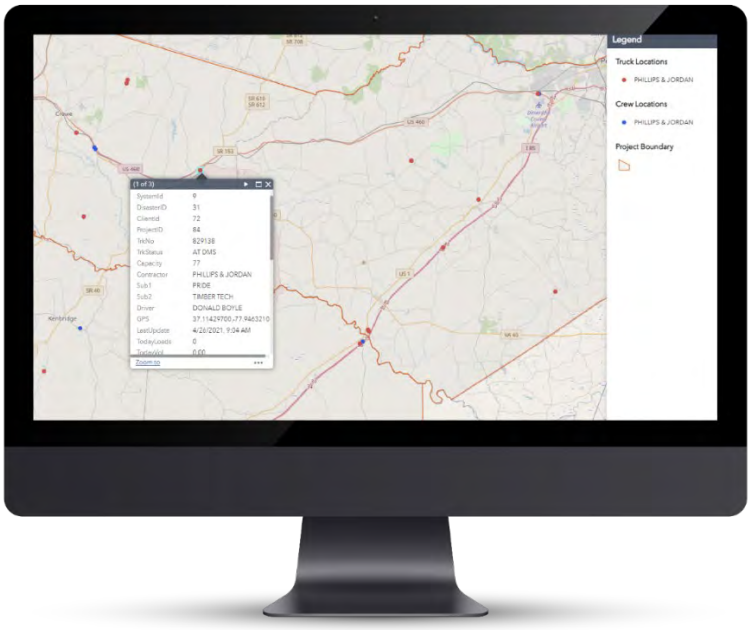
Our RecoveryTrac™ ADMS technology allows the City to view debris collection points, truck locations, monitor locations, damage, incidents, and daily metrics at any given time. The additional geospatial reporting capabilities are made possible through the Tetra Tech approach to field monitoring.

At each debris collection point, the field collection monitor marks the waypoint or location of the debris pile to collect GPS coordinates. The map on the following page displays the waypoints associated with each collection ticket issued in the field. The waypoint collection report is updated in real time and can be filtered by date.

Exhibit 3-6: Waypoint Collection/Hazardous Tree Maps

An additional feature of our ADMS technology is that each handheld device reports back the location of the device regularly. By leveraging this location information, Tetra Tech can view monitor locations and truck locations in real time, as demonstrated below.

Exhibit 3-7: Truck Locations



11. Stumps and Leaners/Hangers

Guidance established by FEMA requires supporting photo documentation for each ticket issued for hazardous tree or hanger removal services. The previous standard for monitoring firms was to take supporting photographs with a digital camera and manually associate the photos to each tree ticket. Tetra Tech utilizes ADMS technology to automatically associate photographs for all hazardous tree and hanger removal operations, which eliminates the potentially extensive labor associated with this task. Additionally, our ADMS technology and software is designed to manage photo documentation by compressing and securely storing photos for field validations and audits in real time. The ability to associate photo documentation to unit rate tickets is critical for FEMA reimbursement, QA/QC, and fraud deterrence.

As work in the field is completed, the information and supporting photos are uploaded directly to our database for QA/QC checks. A QA/QC manager verifies that the photographs comply with FEMA regulations and that all measurements meet the City's contractual agreement with the contractor.

Exhibit 3-8: Hazardous Tree Mobile Suite

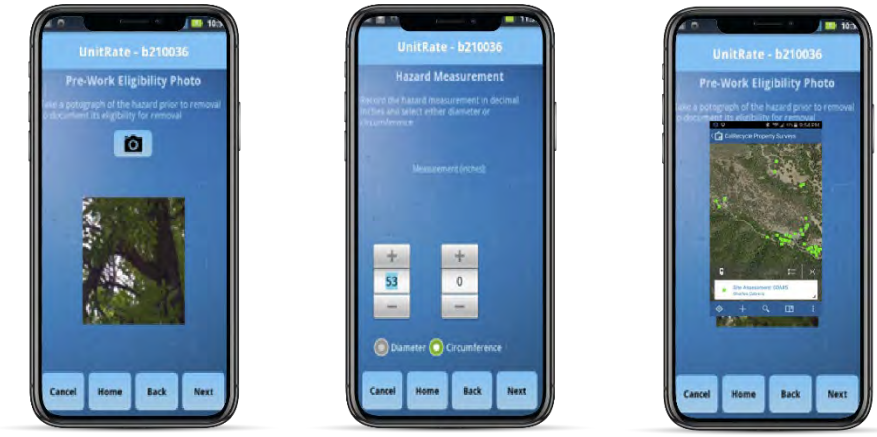
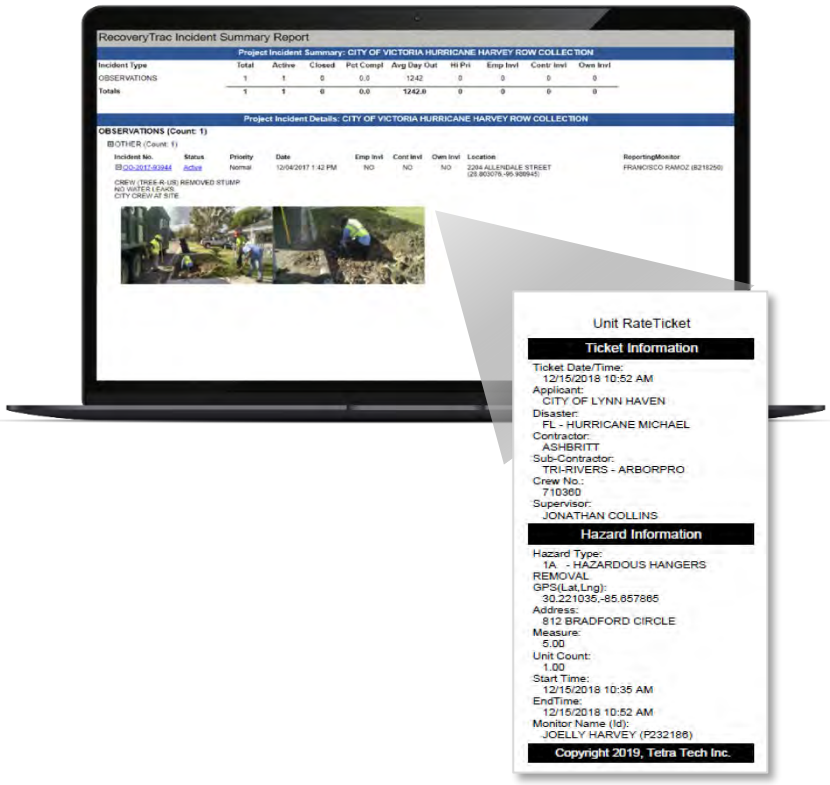


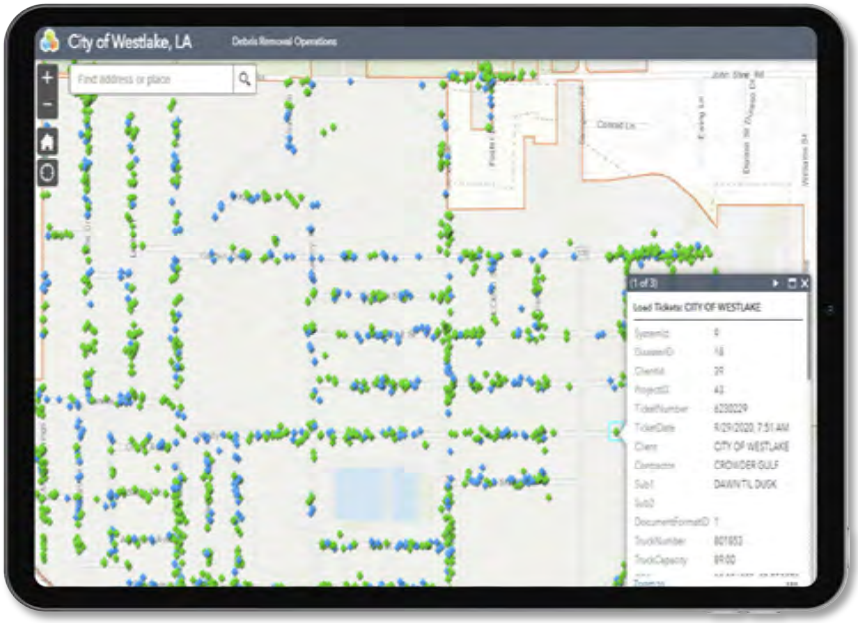
Exhibit 3-9: Real-Time Ticket Report



11.1 Unit Rate Ticket Geoportal Report

As monitors complete unit rate tickets for hazardous trees or hangers, their locations are logged and collected. The map below displays locations where hazardous tree or hanger removals were documented in the field. Clicking on the marker allows the user to review the data and photos collected by the field monitor (see example below). The unit rate ticket report is updated in real-time.

Exhibit 3-10: Unit Rate Ticket Map



12. Public Information

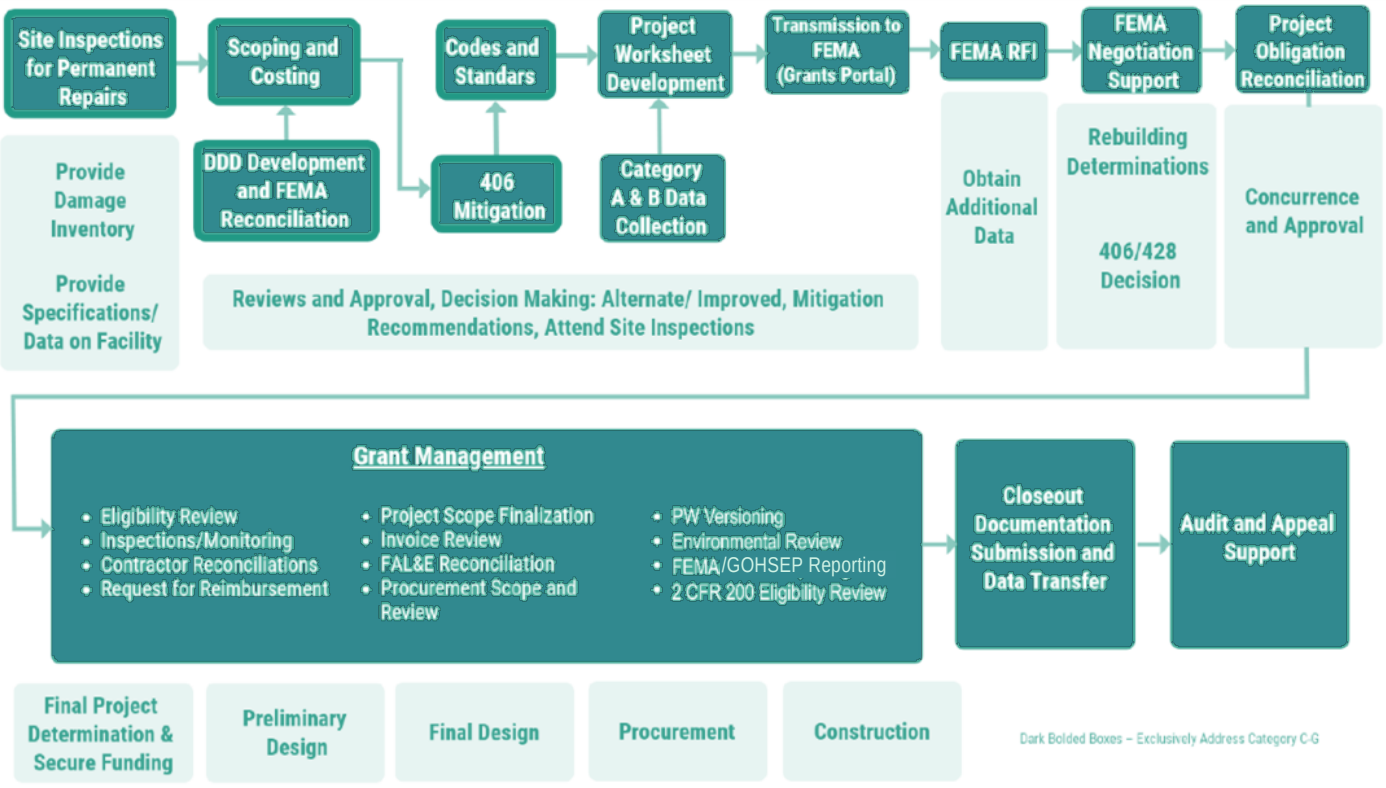
Tetra Tech is prepared to assist with developing a means for the City to manage inquiries from residents regarding the debris removal process. Tetra Tech has staffed debris hotlines for some of the largest disasters that have impacted the United States and can help the City establish and staff a debris hotline (including supplying equipment, phone lines, etc.) to respond to public inquires and concerns.

Public information for debris operations should focus on two components: safety for handling debris and proper set-out procedures. Many hurricane-related injuries and deaths occur after the incident because citizens do not safely address disaster damage and debris. Some of these deaths and injuries could be avoided if residents were provided timely information on how to safely address disaster-related damage to their homes. Public information for residents should include safety precautions for assessing their damaged homes and operating dangerous equipment to remove debris. In addition to safety instructions, proper set-out procedures are critical to ensure that the City can maximize recycling opportunities, reduce impacts to landfill capacity, and maintain efficient debris removal operations. Public information should include instructions for residents to properly separate their debris streams such as HHW, electric waste, construction and demolition debris, vegetative debris, and white goods. Public information should provide residents with specific instructions for separating and bundling their debris and include any information for citizen drop-off locations.

Public messages must meet the needs of the community to ensure all populations receive and understand critical information in a culturally appropriate and effective manner. Tetra Tech will coordinate with the City's public information officer to ensure the correct information regarding debris operations is provided to the public in a format that is accessible to the City's diverse population, in a language all can understand.

13. Process for FEMA Reimbursement/Cost Recovery

The flowchart below illustrates Tetra Tech's approach to the FEMA PA Program lifecycle. Our team has developed documentation processes to capture the data at each step along the way.



13.1 Initial Damage Estimates

Through our experience working with clients in response to the 2020 hurricane season, FEMA is requiring greater documentation of disaster-generated damages than ever before in order to receive a disaster declaration. The proper reporting of damage by the public and inspection of the damage by the City and governmental officials is becoming increasingly important.

Tetra Tech will assist the City in a systematic approach of cataloging, reporting, and documenting disaster-generated debris. We will develop a work plan with the City, ahead of storm season to maximize the efficient use of City and Tetra Tech resources to quickly and accurately find and report debris. As detailed in this section, the use of our proprietary RecoveryTrac™ ADMS technology can assist the City in not only documenting this debris but also targeting resources to remove, haul, and monitor those operations.

The City is supported by our project officer/principal, Chuck McLendon, who has served as principal in charge for 30+ major disaster activations, managing more than 100 million CYs of debris removed and **upwards of $2.5 billion in FEMA PA reimbursement.** Mr. McLendon maintains in-depth knowledge of the FEMA PA program, including an expert understanding of Federal Register 2 CFR Part 200 ("the Super Circular").

A critical part of painting the picture of the disaster event for FEMA is documentation regarding damage location using mapping and the nature of the damage using photo and descriptive evidence. The visualization of the event provides critical insight into the disaster itself and the required resulting response and recovery. To support the City in conducting initial damage estimates, Tetra Tech maintains a critical focus on compliance from the outset. Tetra Tech will coordinate with the City and its departments to integrate into the incident response framework by mobilizing staff to designated locations, leveraging local partners in specific jurisdictions, and working with citizen response teams.

Tetra Tech has utilized several methods to complete and document damage estimates and will work with the City to identify and deploy the preferred solution. In addition to the assessment conducted on the ground by both City and Tetra Tech personnel, potential tactics include:

- Public-accessible QR codes to report damage
- GIS mapping
- Social media mining to geotag photos of damages
- UAS/drone documentation to identify most heavily impacted areas

13.2 Immediate Needs Funding (INF)

Immediate Needs Funding (INF), also referred to as Expedited Funding, is intended to meet an applicant's urgent needs in the initial aftermath of a disaster and is often a critical part of the initial disaster response and short-term recovery. In utilizing Expedited Projects for Emergency Work, FEMA provides expedited funding for Emergency Work Projects. Eligible activities typically include debris removal and emergency protective measures; as such, the funding may be used to cover such costs as overtime payroll, equipment costs, materials purchases, and debris removal and monitoring contracts when these costs are incurred for emergency work.

FEMA is required to disallow all ineligible or unsupported costs. To avoid de-obligation of PA funding, it is critical that applicants sufficiently document costs by type. Knowing which information to capture during emergency work implementation is key and **Tetra Tech has decades of experience in assessing eligibility of and documenting compliance for costs.**

FEMA and the State normally require PA applicants to provide all supporting documentation for reimbursement for completed work, but they can relax this document requirement and provide initial funding to applicants for emergency work required in response to a declared event. Throughout the Expedited Project development process, Tetra Tech will assist the City in gathering and documenting work undertaken as well as providing a summary of the costs for emergency work not yet completed. Tetra Tech will assist the City with gathering the necessary inputs for completed work and developing and applying a sound methodology to present any projections of costs that are to be used to develop Expedited Projects.

Expedited Projects are obligated at 50 percent of eligible costs incurred for Debris Removal (Category A) and Emergency Protective Measures (Category B) conducted within the first days following the disaster and provide the necessary cash flow to kick-start recovery and ease the transition to the more traditional reimbursement-based program. Once the initial award of the expedited project is processed at 50% of the eligible costs incurred or projected, the City will need to provide all required documentation prior to the remaining funds being awarded in a project amendment. After the receipt of the initial funding, Tetra Tech will assist the City in documenting the use of the expediting funding for eligible activities and work to develop the next version/amendment of the project, accounting for those funds and presenting any others that may have been incurred.

13.3 Project Worksheet Completion and Application Process

Tetra Tech's experienced grant managers are poised to help the City submit its initial Request for Public Assistance and attend or provide support for State-led applicant briefings, FEMA recovery scoping meetings (formerly known as kickoff meetings), or any other meetings with FEMA or the State in the development of projects. With the changes FEMA has made to their PA Delivery Model, eligibility determinations are no longer made "in the field" and the projects are written at the Consolidated Resource Centers. Close and consistent interaction with FEMA staff is still crucial, so the City needs an experienced team to augment efforts in presenting any and all eligible costs and activities to FEMA for inclusion in projects.

Submitting a complete damage inventory is key to presenting disaster-caused damage and costs to FEMA. Experienced Tetra Tech project support staff will help gather all necessary inputs for the best possible outcomes. By timely addressing requests for information and uploading related information and documentation, Tetra Tech facilitates timely obligation of project funding and access to federal dollars for recovery.

Tetra Tech is a nationwide leader in the administration of federal funding for disaster response and recovery. Our dedicated staff includes former federal and state level executives with decades of **experience working with FEMA Region 4.**

One of the most often experienced barriers to timely obligation of projects and reimbursement of funds is lack of proper documentation. We work hand in hand with our clients to identify, gather, organize, and submit records reflecting any and all eligible activities undertaken. These records are audit-ready for our clients and paint the picture of well documented eligible work and costs to FEMA, the Department of Homeland Security's Office of Inspector General, City Inspector General, State Legislative Auditor, or others. We serve as a force multiplier for your staff and recognize the importance of timely responding to any Requests for Information (RFIs) received from federal or state officials. We coordinate with all involved to minimize any "back and forth" on such requests that often result in the loss of precious time. Our team of experts can also be onsite with FEMA's site inspectors to adequately capture, measure, and quantify damages. Time equals money, and our goal is to minimize the length of time the City spends waiting for return of eligible program dollars.

13.4 Audit Support

Our team has a proven track record of success in helping our clients resolve disputes with funding agencies such as FEMA or the Grantee (State). This includes support post-obligation audit and the appeal process. Throughout our FEMA-funded disaster response operations, we have only been involved with a handful of disputed projects over documentation.

Tetra Teach **uploads documentation and project support with consistent file naming conventions.** This organized, systematic approach enables timely and thorough review of documentation presented to FEMA and the State of Florida.

We believe in remaining proactive in preventing further appeals requires frequent meetings with state partners and FEMA regions to avoid situations whenever possible.

Furthermore, due to our staff's in-depth knowledge of FEMA reimbursement policies, we are often hired by applicants to assist them after FEMA determination memos and Office of Inspector General (OIG) audits even when we were not involved with the applicant during the recovery period.

Recently, there has been a shift in the direct of FEMA to perform audits earlier in the disaster so that corrective actions can be made for the subrecipient or recipient. The three most common types of audits that we have supported within the first 2 years of the disaster include:

Tetra Tech has supported clients across disasters from 2016 through today on these up-front audits by:

1. Conducting pre-meeting with stakeholders
2. Preparing compliance checklists
3. Developing documentation notebooks
4. Attending meetings and providing subject matter expertise support
5. Responding to for Requests for Information

Elements of our audit support strategy include:

- **Maintain Data Quality:** Consistent quality checks are integrated throughout project operations to maintain data integrity from the beginning.
- **Retain the Data:** Maintain the data on our secure, cloud-based storage site to mitigate the risk of data loss.
- **Respond Quickly:** Acknowledge the question within 12 hours and respond to the audits within 48 hours of a request.
- **Maintain Communication:** Establish weekly calls with auditors that provide visibility into City activities.
- **Stay Positive:** Maintaining a positive spirit between the parties to foster a solution quickly.

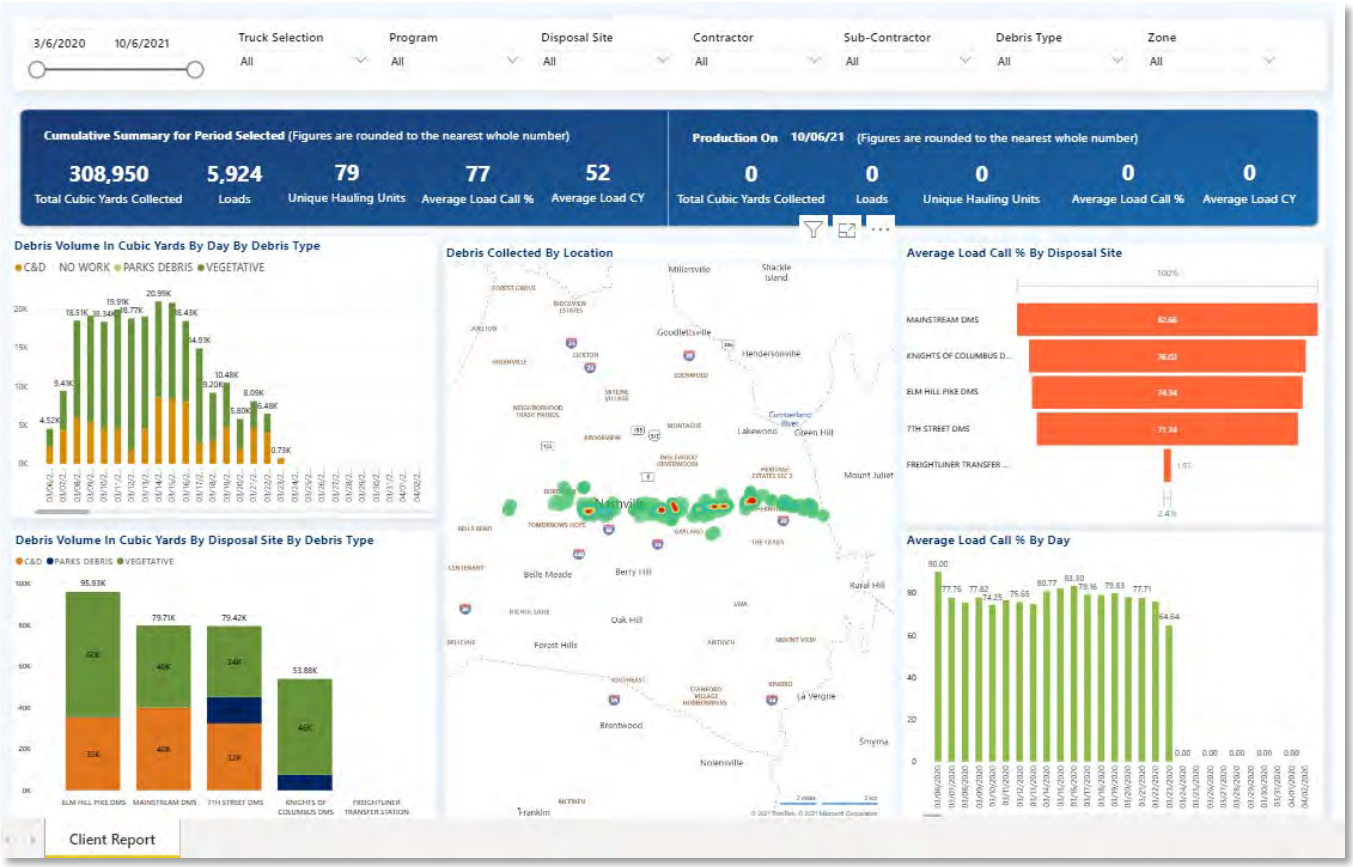
14. Reporting

Tetra Tech has extensive experience in collecting, managing, and tracking financial and project data. Our firm has a full suite of existing reports to allow for custom reporting on all metrics requested from our clients. Tetra Tech has years of experience tracking invoice amounts and payments, budget forecasting, change order and work order attributable costs, etc. We understand the importance of accurate data and cost tracking and have developed several reports over the years to enhance visibility into essential project aspects. A sample of the variety of reports we are able to issue are summarized on the following pages.

14.1.1 Daily Report

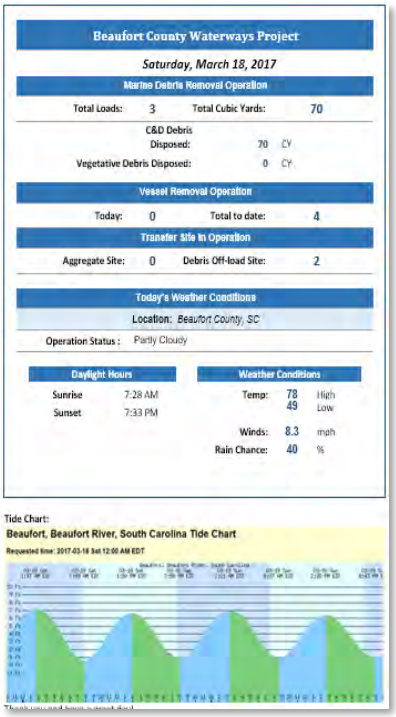
Tetra Tech has a suite of reports that are automated from RecoveryTrac™ and available in real-time via PC, tablet, or smart phone. Although the reports are available at any time to the City, Tetra Tech will submit a daily status report that includes daily cubic yards/tons collected by material and program, cumulative cubic yard/tons collected, number of debris monitors in the field, cumulative cubic yards/tons hauled to final disposal, and daily/cumulative hazard removals. Below are samples of these reports created for recent projects. Additionally, Tetra Tech takes pride in the customization of reports to meet our client's specific needs and provided reports tailored to any metrics not captured in the generic reports.

Exhibit 3-12: Sample Custom Report Developed



Additionally, Tetra Tech takes pride in the customization of reports to meet our client's specific needs and provided reports tailored to any metrics not captured in the generic reports. We especially understand the need to do so on waterway projects, which may require atypical reporting statistics. The following exhibit showcases two examples of custom reporting developed specifically for waterways projects.

Exhibit 3-13: Sample Custom Waterways Reporting



Beaufort County Waterways Project

Saturday, March 18, 2017

Marine Debris Removal Operation

Total Loads: 3 Total Cubic Yards: 70

C&D Debris Disposed: 70 CY

Vegetative Debris Disposed: 0 CY

Vessel Removal Operation

Today: 0 Total to date: 4

Transfer Site In Operation

Aggregate Site: 0 Debris Off-load Site: 2

Today's Weather Conditions

Location: Beaufort County, SC

Operation Status : Partly Cloudy

Daylight Hours		Weather Conditions		
Sunrise	7:28 AM	Temp:	78 / 49	High / Low
Sunset	7:33 PM	Winds:	8.3	mph
		Rain Chance:	40	%

Tide Chart:

Beaufort, Beaufort River, South Carolina Tide Chart

Requested time: 2017-03-18 Sat 12:00 AM EDT

Collier County Waterways Collections - 12/21/17 - 1/23/18

Canal Name	LAND BASED		MARINE BASED		Total Load Count	Total Volume (cuYD)
	Load Count	Volume (cuYD)	Load Count	Volume (cuYD)		
WING DRAINAGE DITCH	13	660.8			13	660.8
LIVINGSTON WOODS OUTFALL	8	413.8			8	413.8
CORPORATE FLIGHT CANAL	8	391.2			8	391.2
SHELL CANAL			14	339.8	14	339.8
RIVIERA GOLF ESTATES DITCH	7	321.9			7	321.9
GOODLETTE CANAL NORTH	2	116.3			2	116.3
TWIN EAGLES CANAL			3	107.3	3	107.3
91ST AVENUE N DITCH	2	105.3			2	105.3
HICKORY ROAD DITCH	2	73.5			2	73.5
FAIRGROUNDS CANAL			3	60.5	3	60.5
IMPERIAL-FPL DITCH 2	1	40.3			1	40.3
IMPERIAL-FPL DITCH 3	1	19.8			1	19.8
WEST-EAST VALLEY DRIVE	1	13.9			1	13.9
OLD US 41 SWALES	1	5.9			1	5.9
Grand Total	*46*	*2,162.6*	*20*	*507.6*	*66*	*2,670.2*

*All figures are estimates pending reconciliation

Reporting Date:	Tuesday, 1/23/2018		
Today's Activities:	Continued Land Based Debris Removal at Poinciana Ditch Completed Water Based Debris Removal at Shell Canal (Golden Gate Community) Begin Water Based Debris Removal at Tropicana Canal (Golden Gate Community) Waterway Debris Collection at Poinciana Ditch, at Shell and Tropicana Canals (Golden Gate Community)		
Tomorrow's Scheduled Activities:	Continue Land Based Debris Removal at Poinciana Ditch Continue Begin Water Based Debris Removal at Tropicana Canal (Golden Gate Community) Waterway Debris Collection at Poinciana Ditch and Tropicana Canal (Golden Gate Community)		
Ashbritt's Crew Equipment:	Crew 1 - Land based crew		Crew 2 – Marine Waterway barge crew
	Mini excavator		30' flat deck barge
	Bobcat		
	Canoe		

14.2 Custom Incident Reporting – Barge Tracking

As previously stated, incident reports can be customized as required by the project. One such option pertinent to waterway debris collection is the barge tracking module. For this monitoring process, custom incidents capture data such as barge arrival at debris removal and offloading sites, work progression, work stoppage (such as downtime for equipment failure or weather events), and other categories as requested. The following two exhibits illustrate how these custom observations would appear on the RecoveryTrac™ geoportal.

Exhibit 3-14: Waypoint Collection Map

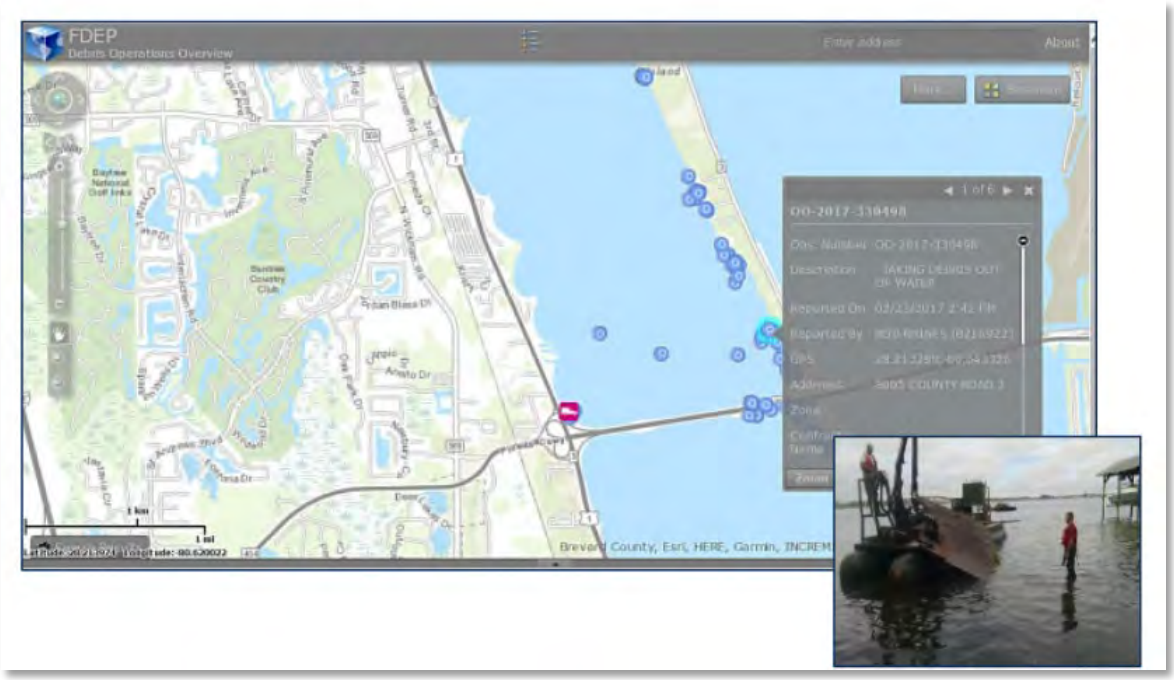
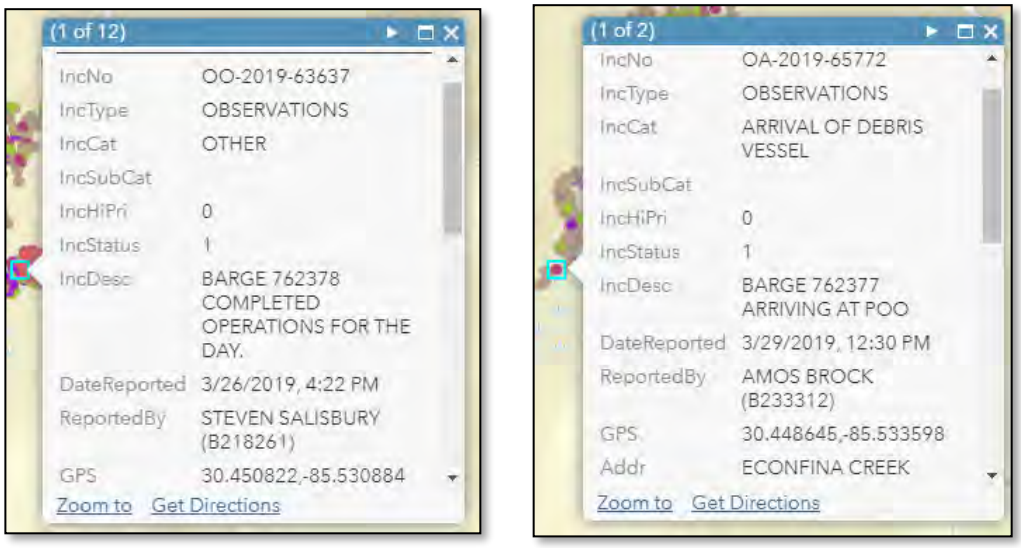


Exhibit 3-15: Barge Tracking Observations



14.2.1.1 Daily Budget Status Reports

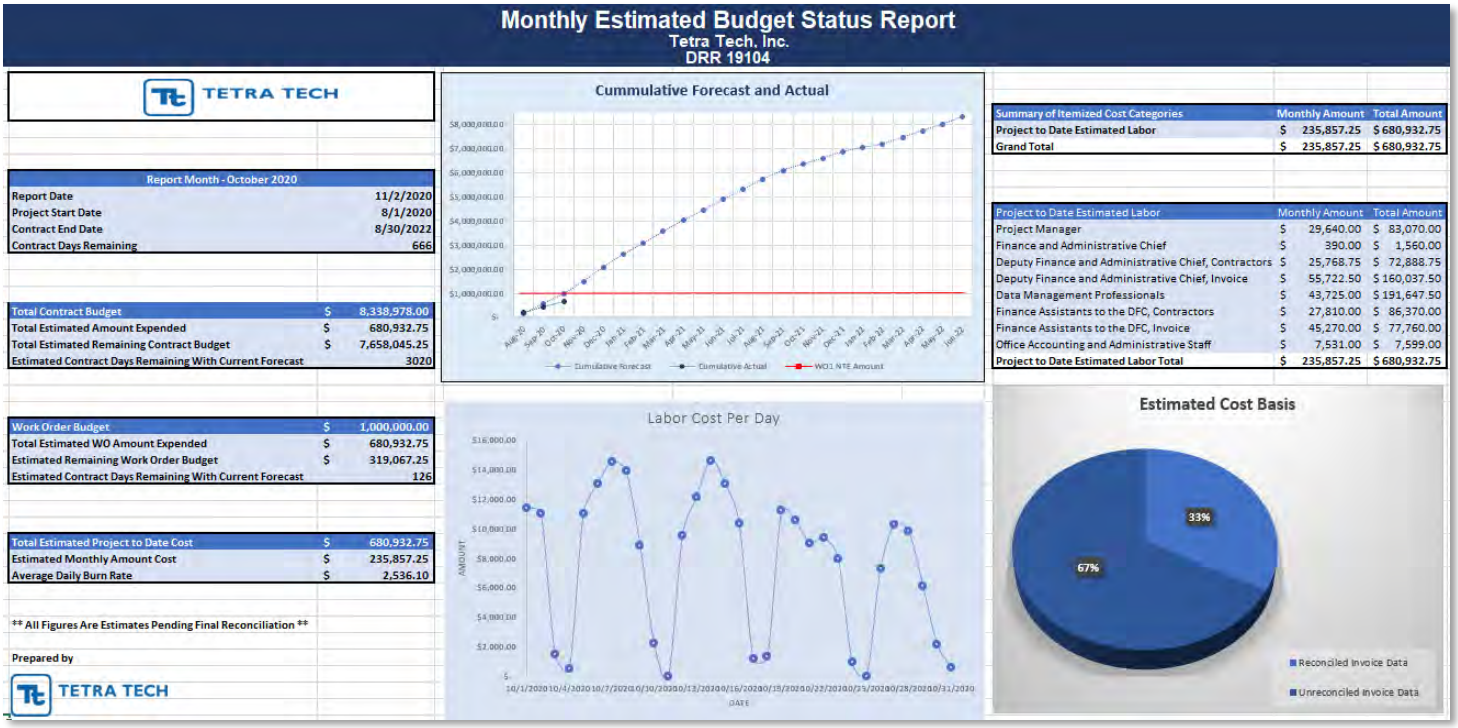
Tetra Tech provides a variety of daily reports that capture costs incurred, invoicing statuses, projections of work, debris totals, task force productivity, evaluation of integrity controls, recommendations, budget forecasting, and other metrics, as requested. Some specific examples of daily reports issued for prior projects include:

- **Finance Daily Budget Status Report:** This report's focus is on invoice reconciliation statuses, budget forecasting, and daily burn rates, contract service expenditure, work order and change order not-to-exceed tracking, and client recommendations based on analyses.
- **Contractor Daily Production:** This report graphs debris type tonnages on a per debris removal team basis by day. This graph also utilizes a slicer to restrict data displayed in the graph to a particular task force and also a timeline to allow for a specific day or range of dates to be shown.
- **Debris Removal Team Daily Production:** This report displays the ticket data summarizing the CYs or tonnage associated with tickets from properties assigned to the contractor. This graph also utilizes a slicer to restrict data displayed in the graph to a particular task force and also a timeline to allow for a specific day or range of dates.
- **Daily Report Contractor Expenditure:** Displays the services included in the project for the contractor. Also shows the quantity and cost amount of each service per day as well as the project to date total of all services. This report also calculates the average daily cost estimate based on the average daily cost for the previous five days.

14.2.2 Monthly Budget Completion Status

Tetra Tech's monthly budget completion status report summarizes financial data collected during the month for all contractors. Additionally, a robust forecast is incorporated along with a summary of recommendations based on the project's operations during the previous month.

Exhibit 3-16: Monthly Budget Status Report



14.2.3 On-Demand Budget Reports

Tetra Tech is able to provide budget reports on demand facilitated by superior cost and quantity tracking in the RecoveryTrac™ database. Previous custom on-demand budget reports include a combination summary of debris quantity data combined with financial metrics.

14.2.4 Incident Reporting

Another key feature of our ADMS technology is that it allows field monitors to report incidents and provide supporting photographs in real time to the City, Tetra Tech, and the debris contractor. Examples of incidents include reporting pre-existing damage, damage caused by the contractor, debris piles skipped by the contractor, safety hazards, and other incidents critical to a debris removal program. As monitors complete incident reports in the field, the information and supporting photographs are uploaded to the Tetra Tech reporting server. Depending on the type of incident, priority e-mails may be sent out by the reporting server to City representatives, Tetra Tech's project team, and debris contractor representatives. Our firsthand experience assisting local governments with recovering from disasters has shown that accurately capturing and photographing pre-existing damage can alleviate residential damage claims that may be submitted to the City. Additionally, the incident map developed from the collection information is essential to quickly identify unresolved contractor damages before the completion of the program.

Exhibit 3-17: Incident Report

RecoveryTrac Incident Summary Report

Project Incident Summary: CITY OF WESTLAKE HURRICANE LAURA ROW COLLECTION

Incident Type	Total	Active	Closed	Pct Compl	Avg Day Out	Hi Pri	Emp Invl	Contr Invl	Own Invl
DAMAGE TO PROPERTY	2	2	0	0.0	61	0	0	1	0
Totals	**2**	**2**	**0**	**0.0**	**61.0**	**0**	**0**	**1**	**0**

Project Incident Details: CITY OF WESTLAKE HURRICANE LAURA ROW COLLECTION

DAMAGE TO PROPERTY (Count: 2)

PRIVATE PROPERTY-MAILBOX (Count: 1)

Incident No.	Status	Priority	Date	Emp Invl	Cont Invl	Own Invl	Location	ReportingMonitor
DP-2020-30961	Active	Normal	9/9/2020 5:26:00 PM	NO	NO	NO	1313 GREENROAD STREET (30.250231,-93.257046)	DARE ADEYANJU (586714)

MAILBOX DOWN BEFORE THE ARRIVAL OF THE DEBRIS TRUCK.

Sample Report: Incident reports are available in real-time and can be accessed at any moment.

14.2.5 Final Report

Tetra Tech has extensive experience completing final reports for disaster debris removal projects. The Final Report will summarize the pre-debris removal, pre-tree removal, and post-debris and post-tree removal conditions. The Final Report typically includes the initial and final assessments, ROE, summary of quantities of materials removed, environmental sampling information, pre and post-work photographs, and final sign off.

In addition, data can be downloaded directly from RecoveryTrac™ using ESRI's ArcGIS feature services. These feature services allow location base selection and download of the data contained within the selected area. RecoveryTrac™ Fleet history, including individual route history can be downloaded and is available over the life of the project.

Upon project closeout, geospatial data will be provided in an ESRI File Geodatabase (FGDB). Non-geospatial data would be provided in Microsoft Excel format, as directed by the City. The data formats provided do not require a RecoveryTrac™ license.

15. Contractor Reconciliation

RecoveryTrac™ significantly reduces the amount of time needed for a contractor to generate an invoice and for the subsequent invoice reconciliation with Tetra Tech.

To expedite contractor invoice reconciliation efforts, Tetra Tech requires copies of contracts for all primary debris contractors. After reviewing the necessary contract(s), Tetra Tech sets up the RecoveryTrac™ database to generate transactions applicable to contract terms for tickets issued to each debris contractor. Prior to the start of debris removal operations, Tetra Tech will meet with the debris contractor(s) to review:

- The invoicing processes
- Contract services established in our database
- Tetra Tech data tools available for their use
- Any other accounting needs as tasked by the City

During this meeting, the typical components of the Tetra Tech payment recommendation will be reviewed, the process for adjustment reconciliation will be explained, and the debris contractor(s) will be trained on how to access Tetra Tech's suite of debris hauler reconciliation data reports (including reconciled transactional and live ticket data).

If RecoveryTrac™ will be used to document the debris contractor's work, Tetra Tech will review the automated reports generated by the system to verify that the dataset is sufficient to reconcile with that contractor's subcontractors, and to generate invoices for payment by the City. If another cost tracking system will be used to document the debris contractor's work, Tetra Tech will review the work that has to be documented to verify that our staff will be able to capture the information needed for accounting and invoice review.

Our invoicing process includes several real-time QA/QC checks throughout the day, and a final daily comprehensive data analysis is performed at the close of operations. A final QA/QC check is completed when the debris contractor sends the invoice dataset to Tetra Tech for reconciliation. Incongruencies in the debris contractor's data are flagged for review and must be resolved prior to the issuance of a final invoice.

Whether using RecoveryTrac™ or paper logs, Tetra Tech will use our RecoveryTrac™ database to store and review data generated in the field documenting debris contractor work. Several QA and QC checks of data will occur before the dataset is ready for reconciliation with the contractor. Services related to debris contractor work order or change order charges are also tracked within the system.

Tetra Tech will submit invoices within the timeframes determined by the City. The process for contractor invoice reconciliation is depicted below.

Exhibit 3-18: Summary of Contractor Invoice Reconciliation Process

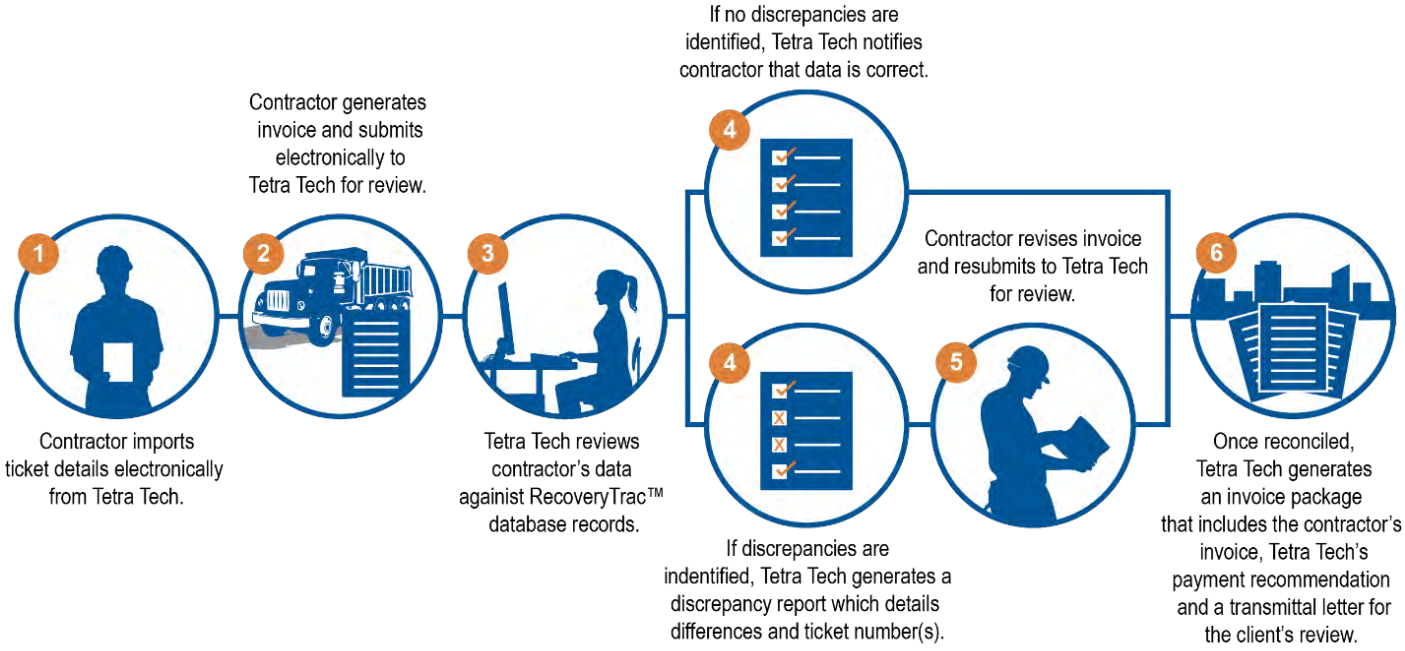
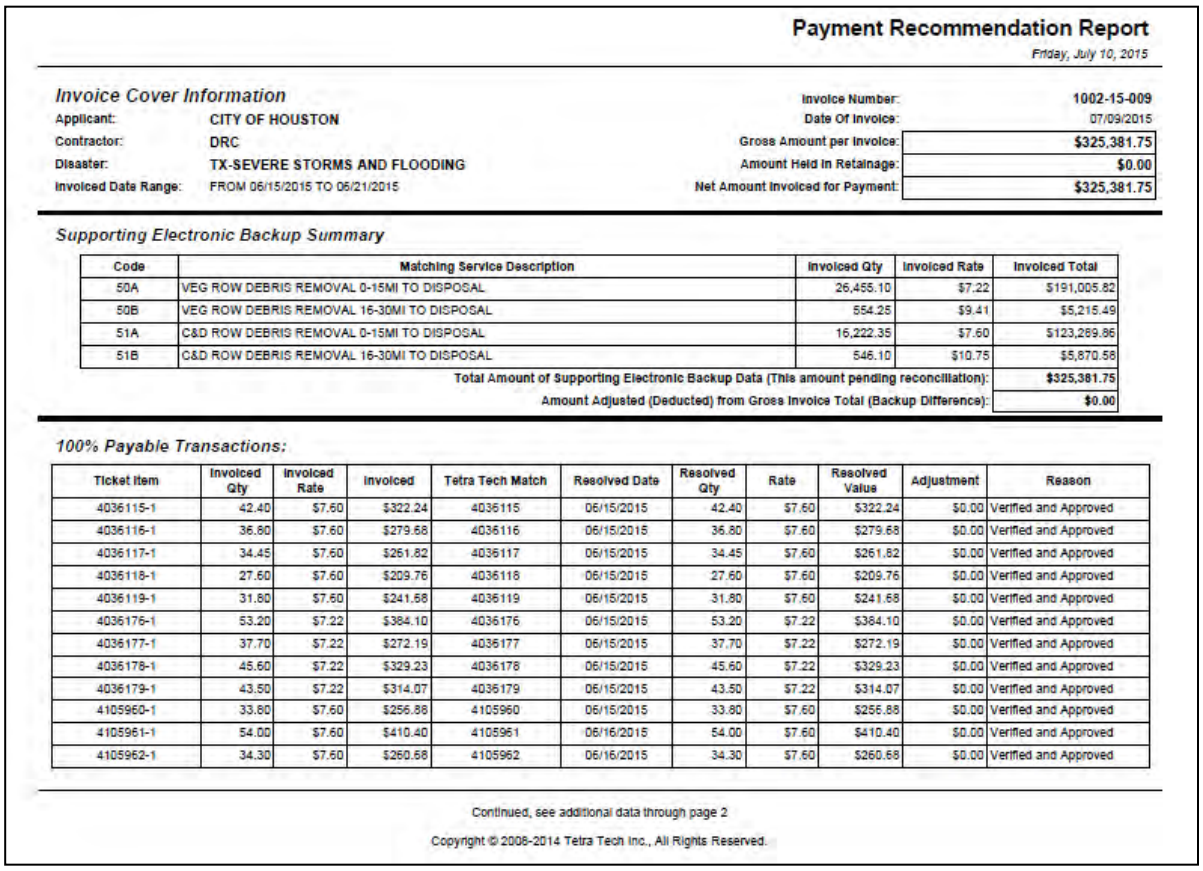


Exhibit 3-19: Tetra Tech's Payment Recommendation Reports provide summarized and reconciled totals for contractor invoices.



Payment Recommendation Report

Friday, July 10, 2015

Invoice Cover Information

Applicant:	CITY OF HOUSTON	Invoice Number:	1002-15-009
Contractor:	DRC	Date Of Invoice:	07/09/2015
Disaster:	TX-SEVERE STORMS AND FLOODING	Gross Amount per Invoice:	$325,381.75
Invoiced Date Range:	FROM 05/15/2015 TO 05/21/2015	Amount Held in Retainage:	$0.00
		Net Amount Invoiced for Payment:	$325,381.75

Supporting Electronic Backup Summary

Code	Matching Service Description	Invoiced Qty	Invoiced Rate	Invoiced Total
50A	VEG ROW DEBRIS REMOVAL 0-15MI TO DISPOSAL	26,455.10	$7.22	$191,005.82
50B	VEG ROW DEBRIS REMOVAL 16-30MI TO DISPOSAL	554.25	$9.41	$5,215.49
51A	C&D ROW DEBRIS REMOVAL 0-15MI TO DISPOSAL	16,222.35	$7.60	$123,289.86
51B	C&D ROW DEBRIS REMOVAL 16-30MI TO DISPOSAL	546.10	$10.75	$5,870.58
	Total Amount of Supporting Electronic Backup Data (This amount pending reconciliation):			$325,381.75
	Amount Adjusted (Deducted) from Gross Invoice Total (Backup Difference):			$0.00

100% Payable Transactions:

Ticket Item	Invoiced Qty	Invoiced Rate	Invoiced	Tetra Tech Match	Resolved Date	Resolved Qty	Rate	Resolved Value	Adjustment	Reason
4036115-1	42.40	$7.60	$322.24	4036115	06/15/2015	42.40	$7.60	$322.24	$0.00	Verified and Approved
4036116-1	36.80	$7.60	$279.68	4036116	06/15/2015	36.80	$7.60	$279.68	$0.00	Verified and Approved
4036117-1	34.45	$7.60	$261.82	4036117	06/15/2015	34.45	$7.60	$261.82	$0.00	Verified and Approved
4036118-1	27.60	$7.60	$209.76	4036118	06/15/2015	27.60	$7.60	$209.76	$0.00	Verified and Approved
4036119-1	31.80	$7.60	$241.68	4036119	06/15/2015	31.80	$7.60	$241.68	$0.00	Verified and Approved
4036176-1	53.20	$7.22	$384.10	4036176	06/15/2015	53.20	$7.22	$384.10	$0.00	Verified and Approved
4036177-1	37.70	$7.22	$272.19	4036177	06/15/2015	37.70	$7.22	$272.19	$0.00	Verified and Approved
4036178-1	45.60	$7.22	$329.23	4036178	06/15/2015	45.60	$7.22	$329.23	$0.00	Verified and Approved
4036179-1	43.50	$7.22	$314.07	4036179	06/15/2015	43.50	$7.22	$314.07	$0.00	Verified and Approved
4105960-1	33.80	$7.60	$256.88	4105960	06/15/2015	33.80	$7.60	$256.88	$0.00	Verified and Approved
4105961-1	54.00	$7.60	$410.40	4105961	06/16/2015	54.00	$7.60	$410.40	$0.00	Verified and Approved
4105962-1	34.30	$7.60	$260.68	4105962	06/16/2015	34.30	$7.60	$260.68	$0.00	Verified and Approved

Continued, see additional data through page 2

16. Project Controls

16.1 Quality Assurance

Our ADMS technology expedites the QA/QC process and **drastically reduces ticket errors** that can result from traditional manual (paper and pen) debris monitoring operations.

Implementing comprehensive QA/QC protocols and technologies is critical to a debris monitoring effort. Proper QA/QC protocols reduce the amount of work associated with back-end data management, reduce invoice reconciliation timeframes, prevent fraud, and establish a sound dataset for future audits. Throughout years of experience assisting local governments with recovering from disasters and the subsequent audits, Tetra Tech has developed industry-leading QA/QC standards and protocols. The use of our ADMS technology expedites the QA/QC process and drastically reduces ticket errors that can result from traditional manual (paper and pen) debris monitoring operations. For example, monitors no longer have to carry a GPS device and manually write in GPS coordinates because this is logged automatically.

Due to the real-time information collected by our ADMS technology, Tetra Tech can establish a virtual command center to audit project information during the collection process and correct issues as they appear. For example, our ADMS technology provides reporting and tracking on any missed debris piles. This allows Tetra Tech to improve our responsiveness to resident complaints and provide real-time tracking tools to manage removal of these missed piles to the City.

Exhibit 3-20: Missed Piles Tracking

16.2 Fraud Prevention

Several practices are used to prevent debris haulers from committing fraud both in the field and remotely by real-time data monitoring. At DMS locations, Tetra Tech disposal monitors or supervisors will randomly recertify a previously certified truck. Recalculating the truck hauling capacity helps verify that the original work was accurate and that nothing has been altered since certification. Additionally, ADMS technology displays a photo of the truck as a ticket is scanned by the disposal monitor. This makes it nearly impossible for a debris hauler to switch truck certifications between trucks or alter their truck configuration (i.e., remove sideboards).

Fraud prevention reports are run daily to identify data anomalies that may be a result of fraud. The load call report shows all load calls for a given day/monitor to confirm no trucks are receiving extraordinarily high load calls. The load ticket report and unit rate daily ticket report determine if monitors are issuing an excessive number of tickets in relation to the average number of tickets per day. The RecoveryTrac™ system includes built-in project controls that alert the data manager to anomalies that may be indicative of fraud. For example, the following data features are flagged:

- **Truck Turn-Around-Time.** The time between last pick-up location and arrival of a truck at the DMS is tracked. A time that is too short may indicate that the debris hauler is not filling the vehicle to capacity.
- **Out-of-Bounds.** The municipality boundaries are programmed geospatially to confirm that debris pick-up remains within the eligible bounds of the City.
- **Debris Type.** Discrepancies between the debris type noted by the collection monitor and the debris type noted by the disposal monitor are flagged for review.

16.3 Training

In disaster response and recovery, training is not one-size-fits-all. Tetra Tech customizes formal trainings to the duties of each new employee, and hosts trainings in the Hiring Center with a Tetra Tech certified trainer. These trainings include modules specific to each client's needs and requirements, complete with information to ensure accurate field monitoring and ADMS implementation. By using interactive qualifying tools throughout training modules, Tetra Tech helps trainees better retain information while also screening and selecting the most qualified personnel as field monitors.

To properly instruct newly hired employees, Tetra Tech has developed a training program that includes modules specific to the City. These modules are complete with the information required to facilitate accurate field monitoring and ADMS implementation. Tools included in the training modules assist with the retention of the material and assist Tetra Tech in

screening and selecting the most qualified personnel for the monitoring task. Training module topics include truck certification, load site monitor responsibilities, disposal monitor responsibilities, hazardous trees monitor responsibilities, and field supervisor responsibilities. Project managers, data managers, and operations managers follow standard operating procedures and protocols established in our concept of operations plan.

16.4 Safety and Health Standards

Tetra Tech's employees are the foundation of our business and protecting them at all work sites is our highest priority. The company subscribes to the philosophy that all occupational incidents can be prevented and that no incident is treated as an acceptable event when we execute our work. To achieve this, the company's health and safety processes are a vital and integral part of our work.

Health and safety addressed in our operations and management systems is supported by strong leadership. Tetra Tech's leaders understand their responsibility and accountability to plan for safety and to ensure that safety measures are implemented. Preventing incidents also relies on a management system that regularly evaluates performance and identifies necessary adjustments to target continual improvement. The principal objectives of our program are codified in our written health and safety policy, which is endorsed and regularly monitored by the highest levels of our management team.

Industry Metrics for 2020 Health and Safety Performance		
0.86	**0.45**	**0.19**
US Experience Modification Rate (EMR)	2019 Enterprise-Wide Total Recordable Injury Rate (TRIR)	2019 Enterprise-Wide Lost Workday Incident Rate (LWDIR)
29% better than average industry workers' compensation claims	**Outperformed others in our industry by 43%**	**Outperformed others in our industry by 45%**

Tetra Tech is committed to workplace safety. As such, a project-specific health and safety plan will be developed for the scope of work. Field staff assigned to the project will be trained on the health and safety plan. Additionally, Tetra Tech project managers have completed the Occupational Safety and Health Administration (OSHA) Disaster Site Worker course and have their 10-hour Construction Safety Certification.

During a debris recovery operation, Tetra Tech project managers and supervisors routinely examine the safety of field and debris staging site operations and have the authority to shut down unsafe operations. Debris staging site monitors are equipped with the appropriate personal protective equipment, which may include hard hats, appropriate footwear, reflective vests, hearing protection, and eye protection. Additionally, Tetra Tech project managers conduct regular tailgate safety sessions with their field employees to alert them of potential work hazards and review safe work practices.

Tetra Tech has incorporated **COVID-19 awareness and safety procedures** into all project Health and Safety Plans since the start of the pandemic. These protocols will be incorporated into the project Health and Safety protocols to support the City in slowing the spread of COVID-19.

17. Current Workload and Ability to Respond

Clients count on us to respond in their time of need, and we have never failed to deliver. Tetra Tech is committed to maintaining regular communication with our clients even during times of normalcy. As forecasted events approach, such as hurricanes, we will be in constant contact with the City's liaison to ensure that the City is fully prepared for the event. **Tetra Tech will commit our project manager, Mr. Will Barton, to the City emergency operations center (EOC) or designated location (to ride out the storm with City staff) with other key personnel in close proximity to the City.** Further, our principal in charge, Mr. Chuck McLendon, will be assigned to the Broward County region to ensure that the City receives the full assets that they require.

Tetra Tech is a known leader in the field of disaster debris monitoring. As such, we typically have multiple contractual engagements in any one geographic area. Understanding this, we have spent countless hours planning for events, building our databases of qualified staff, and training our personnel on multiple job functions so that they can be prepared to respond. Tetra Tech has carefully reviewed the scope of services and is aware of the importance of committing the necessary resources to carry out the tasks associated with this project. *We are committed to providing a consistent and coordinated team to perform this important work for the City.* Exhibit 3-21 provides a list of debris monitoring projects Tetra Tech is currently managing.

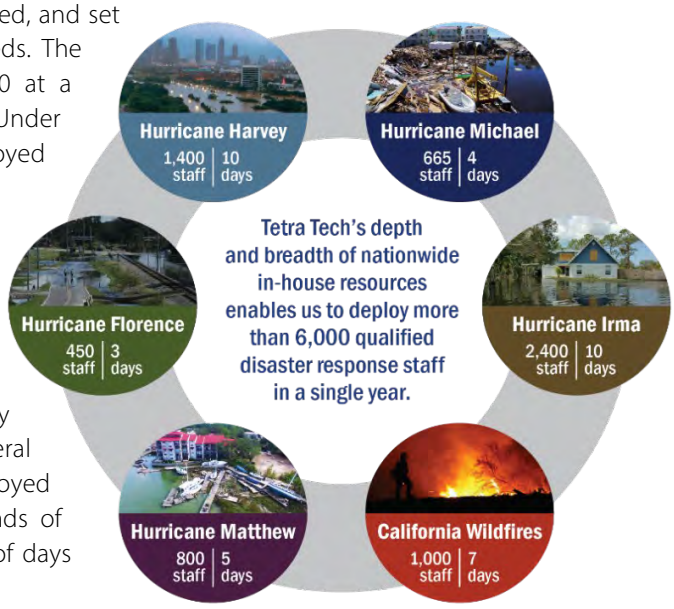
Exhibit 3-21: Current Projects

Client Name	Project Name	Status
New Bern, NC	**New Bern Drainage Basin**	Ongoing
City of Houston, TX	**Silt Removal Program Management**	Ongoing
Town of Paradise, CA	**2020 Arborist Program**	Ongoing
CalRecycle	**Camp Fire Finance and Administration**	Ongoing
Calcasieu Parish Police Jury, LA	**2020 Debris Monitoring**	Ongoing
City of Sulphur, LA	**Hurricane Laura Debris Monitoring**	Ongoing
Clackamas County, OR	**Wildfire Clean-up Task Order 2**	Ongoing
CalRecycle	**2020 Debris Management Services**	Ongoing
Butte County, CA	**General Services**	Ongoing
Miami Dade County Fire Rescue Department, FL	**Surfside Debris Management Services**	Ongoing
Calcasieu Parish Police Jury, LA	**Hurricane Laura Private Property Debris Removal Program**	Ongoing
Iberville Parish, LA	**Hurricane Ida Right-of-Way Program**	Ongoing
St. Helena Parish, LA	**Hurricane Ida Debris Monitoring**	Ongoing
Central City, LA	**Hurricane Ida Right-of-Way Program**	Ongoing
St. James Parish, LA	**Hurricane Ida Right-of-Way Program**	Ongoing
City of Covington, LA	**Hurricane Ida Right-of-Way Program**	Ongoing
Tangipahoa Parish, LA	**Hurricane Ida Right-of-Way Program**	Ongoing
Town of Lutcher, LA	**Hurricane Ida Right-of-Way Program**	Ongoing
Town of Gramercy, LA	**Hurricane Ida Right-of-Way Program**	Ongoing
County of Somerset, NJ	**Hurricane Ida Right-of-Way Program**	Ongoing
Diamondhead, MS	**Hurricane Ida Right-of-Way Program**	Ongoing
CalRecycle	**2021 Wildfires**	Ongoing
Ashbritt, Inc.	**Harris County, Texas COVID-19 Services**	Ongoing

Our ability to respond rapidly is accelerated by utilizing the following:

- **ICS Structure:** Our projects are operated under the ICS structure and have a proven track record of meeting even the most challenging staffing level requirements. ICS allows the Tetra Tech project team to scale as needed, coordinate response, establish common processes for planning and managing resources, and adapt organizational structure to match the needs and complexities of projects.
- **Ability to Hire Rapidly:** Tetra Tech's immediate response staffing plan utilizes our vast network of disaster recovery professionals, including full-time employees, reserve staff from the Tetra Tech Disaster Recovery Unit, and local hires. Our staffing process has rapidly mobilized project teams for major disaster recovery projects nationwide. We prioritize deploying local staff, which benefits the local post-disaster economy and reduces mobilization and transportation costs. In addition to maintaining an extensive field staff database, Tetra Tech can deploy our Field Human Resources (HR) Hiring

Center, which is designed to be quickly mobilized, transported, and set up to allow near immediate response for field staffing needs. The number of trained HR representatives can scale up to 20 at a moment's notice, with the ability to hire 200+ staff per day. Under this process, local teams can be hired, trained, and deployed within 24 hours.



- **Depth of Resources:** Tetra Tech maintains a fully stocked warehouse located in Orlando, Florida with over 120 fully stocked bays of debris monitoring supplies capable of supporting over 50 simultaneous recovery operations for over 90 days. We also have dedicated logistics staff that manages resources and supplies and can have a fully functioning field office in a matter of days, and often several simultaneous offices at once. Tetra Tech has consistently deployed large-scale mobilizations of hundreds of staff and thousands of dollars' worth of equipment to multiple clients in a matter of days and on very short notice.

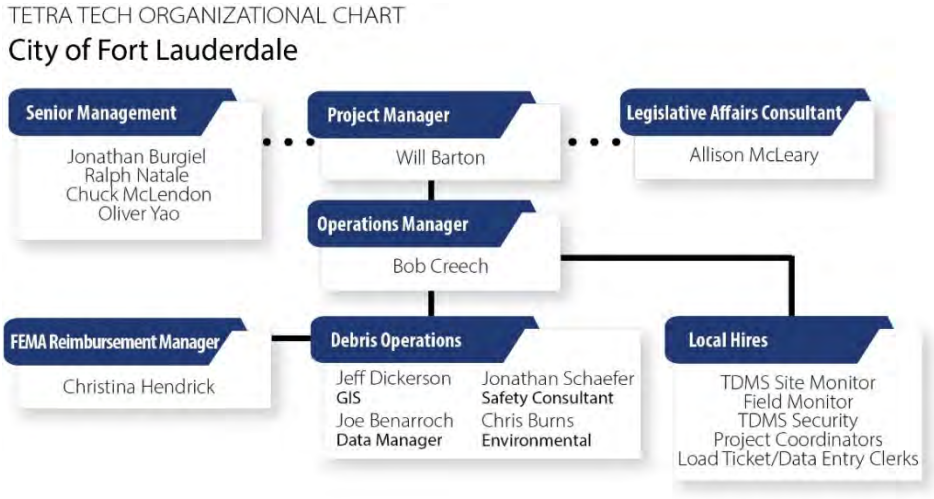
17.1 Staff Resources

Tetra Tech is committed to providing the City a dedicated project management team that will treat our engagements with the City as if they are the firm's only engagements.

Our team of response and recovery experts has proven that our ability to serve our clients begins and ends with our seasoned disaster recovery professionals. Our scalable disaster recovery operations are staffed by a deep bench of experienced disaster recovery professionals that includes:

9	38	42	55	35
Project Principals	Project Managers	Operations Managers	Field Supervisors	Project Coordinators

This core team provides management and oversight to our disaster response and recovery operations. They are seasoned experts in their field, with experience managing disaster recovery projects in response to hurricanes, floods, tornadoes, fires, ice storms, and straight-line wind events in 20 states and simultaneous activations in nine states. Our senior level staff includes **Chuck McLendon**, **Jonathan Burgiel,** and **Ralph Natale**, all of whom have extensive South Florida experience. More detailed information describing the team's experience, training , and education is included in *Section 1 – Experience and Qualifications.*



While the Tetra Tech senior management team has worked together for more than 15 years, the firm also frequently welcomes new talent to meet client needs. Positions will be filled using Tetra Tech's vast network of disaster recovery professionals, including full-time employees and local hires.

17.2 Equipment

Tetra Tech maintains a warehouse located in Orlando with over 120 fully stocked bays of debris monitoring supplies capable of supporting over 50 simultaneous recovery operations for over 90 days. *Tetra Tech has consistently deployed large-scale mobilizations of hundreds of staff and thousands of dollars' worth of equipment to multiple clients in a matter of days and on very short notice.* Exhibit 3-22 lists available equipment and facilities readily available upon activation.

Exhibit 3-22: Equipment List

Field Documents Currently in Our Warehouse	
ADMS Handheld Units	6,000
Time and Materials Forms	5,000
Truck Certification Forms	5,000
ADMS Ticket Stubs	800,000
Haul Out Ticket Stubs	300,000
Placards	5,500
Kits	
Project Manager Kits (1 Per 100 Monitors)	40
Project Coordinator Kits (1 Per 100 Monitors)	40
Human Resources Kits (1 Per 100 Monitors)	40
Collection Monitor Kits (1 Per 25 Monitors)	90
Disposal Monitor Kits (1 Kit Per Disposal Site)	100
Leaner/Hanger/Stump Kits (1 Per 50 Monitors)	40
Equipment**	
Laptops	400
Mifi (Mobile Wiireless)	90
High Speed Scanners	70
Printers	45
Mobile Command Office	2
Gas Trucks	To Be Obtained from Pre-Contracted Vendor
Modular Work Locations	To Be Obtained from Pre-Contracted Vendor
Generators	To Be Obtained from Pre-Contracted Vendor
Portable Facilities	To Be Obtained from Pre-Contracted Vendor

**All field documents are replenished as they are needed. Tetra Tech has several emergency vendors with the ability*
*** ADMS units are readily available and can be ordered as needed on a 24-hour turnaround.*

18. Additional Services

Over the past 20 years, our grant management experts have assisted clients with applying for and retaining grant funds, even after closeout and audit processes. Our team has extensive experience assisting local and state governments with managing and documenting projects that are eligible for federal funding through the FEMA PA Program, including multiple, large PA programs for clients such as Palm Beach County (FL), Volusia County (FL), and the States of Louisiana, New Jersey, Vermont, South Dakota, and Connecticut. Our team also has significant experience with FHWA Emergency Relief (FHWA-ER) federal reimbursement, having assisted over 60 clients with FHWA application, project management, and reimbursement.

Having a national firm with broad capabilities allows the City to bring in the right skills and background for the required scope of work and funding source. From engineers with technical capabilities (i.e., transit, road/bridge, water/wastewater, cost estimating) to former federal and state emergency management officials included on our project team, our team has direct experience with the following grant programs:

- FEMA Hazard Mitigation Grant Program (HMGP)
- FEMA Flood Mitigation Assistance Program[1] (FMA)
- FEMA Public Assistance (PA) Program
- Pre-Disaster Mitigation (PDM)
- Federal Highway Administration-Emergency Relief (FHWA-ER) Program
- FHWA Transportation Investment Generating Economic Recovery Grant
- Natural Resources Conservation Service (NRCS) Emergency Watershed Protection
- U.S. Department of Housing and Urban Development (HUD) Community Development Block Grant (CDBG) Program

Tetra Tech has comprehensive experience working with the CDBG and CDBG-DR programs and has a successful record of helping communities across the region bolster recovery efforts and long-term resilience. Tetra Tech has applied our expertise in the CDBG-DR program to help numerous communities navigate complex program requirements, including the development of action plans, consolidated plans, grant management, application procedures, and compliance review among other services.

18.1 Reconstruction

Reconstruction typically begins during the recovery phase as funding is awarded and disbursed to applicants. In general, reconstruction activities are those services provided by the City after funding has been awarded to ensure that grant funds are being spent in accordance with the purpose outlined in the scope of the funding documents. The ultimate goal is to ensure that the necessary documentation exists to substantiate work completed with federal grant funds. Reconstruction is divided into five tasks:

- **Task 1: Program Management.** Tetra Tech can assist the City with program management activities to efficiently and effectively manage project implementation. The primary objective of Task 1 is to ensure that the City has the necessary tools and plans required to implement the FEMA PA and Hazard Mitigation Grant Program funds it has been awarded.
- **Task 2: Interim and Final Project Inspections (for Large PWs).** Tetra Tech will conduct interim and final project inspections to confirm applicants are completing work, following approved scopes of work, filing proper time extensions, and receiving adequate funding. Additionally, Tetra Tech will assist applicants with the creation of closeout packets, providing audit assistance and offering PW appeal and amendment/version support. At the City's request, Tetra Tech will accommodate requests made by FEMA to develop documentation necessary for releasing progress payments based on the interim inspections.
- **Task 3: Regulatory Auditing.** To ensure that work is conducted in compliance with federal, state, and local regulatory bodies, Tetra Tech will work with applicants to ensure that projects satisfy regulatory clearances. While the City does not maintain primary legal responsibility for policing regulatory matters, as an applicant for federal grant funding its proceeds are contingent upon the satisfaction of such requirements. For this reason, Tetra Tech will coordinate directly with federal, state, and local regulatory officials to ensure an open dialogue and active participation by all parties.
- **Task 4: Appeals Support.** Tetra Tech will work with FEMA and the City to proactively resolve funding challenges; applicants have the legal right to appeal decisions and judgments made by FEMA or the State if resolution cannot be reached. Part of this legal process requires that applicants submit appeals to the grantee (State of Florida) for approval and subsequent submission to the FEMA regional director. Tetra Tech will implement a systematic approach by which appeals are developed, submitted, and reviewed. In the event that a first appeal to the FEMA regional director is unsuccessful, Tetra Tech will assist the applicant with drafting the second appeal for submission to the national director of recovery.
- **Task 5: Long-Term Community Recovery Planning.** Due to the devastation that a hurricane or tropical storm can have on the area, the City and its local partners may wish to engage the FEMA Emergency Support Function (ESF) #14 Team – Long-Term Community Recovery. The ESF #14 Team can be deployed to those areas with catastrophic damage in an effort to effectively rebuild and recover from the disaster. ESF #14 planning efforts identify future initiatives (green building), economic revitalization (downtown redevelopment), and funding sources (private and public grants).

[1]Formerly three separate grant programs: FEMA Severe Repetitive Loss Program, FEMA Repetitive Flood Claims Program, and the FEMA Pre-Disaster Mitigation Program.

SUBMITTED ELECTRONICALLY THROUGH BIDSYNC

Supplier Response Form

REFERENCES

A minimum of three (3) references shall be provided:

1. **Company Name:** City of Pensacola, Florida *
   Address: 2759 North Palafox Street
   Pensacola, FL 32501 *
   Contact: John Pittman *
   Phone #: (850) 860-2334 * Email: JPittman@cityofpensacola.com *
   Contract Value: $1,109,949 * Year: 2020 *
   Description: Tetra Tech monitored the collection of more than 574,000 cubic yards and over 4,500 hanging tree limbs. We monitored disposal at three debris management sites and two final disposal sites. Our monitoring efforts included both the contract debris haulers vehicles as well as City of *

2. **Company Name:** Pinellas County, Florida *
   Address: 22211 US Highway 19N, Building 1
   Clearwater, FL 33765 *
   Contact: Sean Tipton *
   Phone #: (727) 464-8809 * Email: stipton@co.pinellas.fl.us *
   Contract Value: $1,759,698 * Year: 2018 *
   Description: Pinellas County activated the Tetra Tech team to conduct post-disaster debris monitoring services under a pre-positioned contract. Our management team was on-site within hours of the stormÃ¢Â.Â s passing to conduct initial damage assessments and begin monitoring the cleanup process. Over *

3. **Company Name:** City of Houston, Texas *
   Address: 611 Walker Street, 12th Floor
   Houston, TX 77002 *
   Contact: Mark Wilfalk *
   Phone #: (713) 837-0311 * Email: mark.wilfalk@houstontx.gov *
   Contract Value: $12,000,000 * Year: 2019 *
   Description: For over a decade, we have assisted the City of Houston. Our team most recently responding to disaster relief efforts as a result of Hurricane Harvey, the most powerful storm to impact the Texas coast since 1961. Our team remained on-site before, during, and after the impact of the storm, thus *

4. Company Name: Baldwin County, Alabama

Address: 22251 Palmer Street
Robertsdale, AL 36567

Contact: Terri Graham

Phone #: (251) 972-6878 Email: TGraham@baldwincountyal.gov

Contract Value: $6,910,848 Year: 2021

Description: Our on-site project management team rapidly mobilized debris operations, hiring and training 224 local debris monitors to oversee field debris removal and disposal at 12 DMS across the County. Tetra Tech utilized our proprietary ADMS, RecoveryTrac, to successfully collect an extensive amount of

5. Company Name: City of Miami, Florida

Address: 3500 Pan American Drive
Miami, FL 33133

Contact: Zerry Ihekwaba, PhD, PE

Phone #: (305) 468-5900 Email: NIhekwaba@miamigov.com

Contract Value: $3,911,307 Year: 2018

Description: Following Hurricane Irma, Tetra Tech staff was on the ground within 12 hours of impact and engaged in the immediate tasks of assisting with temporary site permitting, coordinating primary clearance routes with the CityÃ¢Â Â s debris

5. MWBE and Subcontractors

Tetra Tech seeks opportunities to work with small, women-owned, minority-owned, and disadvantaged business enterprises whose specific and individual capabilities complement our own for the benefit of the successful completion of a project.

While Tetra Tech is a large, multi-national firm with sufficient resources to complete almost any project, we are committed to upholding the requirements for contracting with local businesses and small, minority-owned, and/or women-owned businesses included within 2 CFR 200.321 and within the City's RFP.

As evidence of the Tetra Tech Disaster Recovery division's commitment to local and minority participation in our projects, in February 2019, Tetra Tech received the City of Houston Goods and Services Prime Contractor of the Year Award at the 6th Annual Champions of Diversity Awards Ceremony. Tetra Tech is honored to be selected for such an award, demonstrating our commitment to working with minority-owned, women-owned, small, and disadvantaged business enterprises.

Tetra Tech receiving the City of Houston Goods and Services Prime Contractor of the Year Award at the 6th Annual Champions of Diversity Awards Ceremony.

Tetra Tech agrees to use its best efforts to fully comply with City of Fort Lauderdale supplier diversity subcontracting requirements. Tetra Tech has established relationships with a number of qualified firms in Broward County and throughout Florida. **For this engagement, Tetra Tech has partnered with DeAngelo Development, Inc., a Fort Lauderdale minority and small business enterprise. DeAngelo Development offers extensive experience in construction, construction management, and staff augmentation.** Additionally, Tetra Tech has conducted Good Faith Efforts to identify additional local subcontractors for this project should the need arise. **A copy of our Good Faith Efforts has been included following this page.**

Portions of Work Identified for M/W/DBE Subcontractors

For debris monitoring assignments, we routinely utilize local engineering, construction/construction inspection, and staffing firms to provide trained personnel to support Tetra Tech with debris monitoring services. We find that these types of firms have field and documentation experience similar to disaster debris monitoring and fit in well with our project teams. Tetra Tech has identified the following tasks to be performed by DBEs in order to increase M/W/DBE subcontractors on this project:

Activity	Estimated Portion of Subcontracted Work
DMS monitoring	45%
Loading site management for proper screening	15%
Debris removal operations oversight	10%
Monitoring removal of hazardous trees	10%
Monitoring removal of construction and demolition debris	10%
Environmental site assessments as needed	5%
Debris removal quality assurance support	5%
Total	**100%**

Following an event impacting the City, we will evaluate the need and appropriateness of adding additional portions of work and/or additional partnering firms to increase DBE participation for the project.

SECTION 5 - GOOD FAITH EFFORTS DOCUMENTATION

Armanious, Marina

From: Armanious, Marina
Sent: Monday, November 8, 2021 3:34 PM
To: Armanious, Marina
Cc: TDR Contracts
Subject: Request for Qualifications - Tetra Tech, Inc. - City of Fort Lauderdale, FL RFP
Attachments: 12527-825 - Disaster Debris Management Cost Recovery_V3.pdf

Tracking:

Recipient	Delivery	Read
Armanious, Marina	Delivered: 11/8/2021 3:34 PM	Read: 11/8/2021 3:35 PM
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'BQIAN@ELANDENG.COM'		
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Greetings,

Tetra Tech, Inc. (Tetra Tech) is currently working on preparing a proposal in response to Request for Proposal for the **City of Fort Lauderdale, FL – Disaster Debris Management, Cost Recovery, Project Management and Other Support Services** (attached). Tetra Tech officially invites you to provide a **statement of qualifications** for services relevant to your organization, as described in the attached Solicitation.

This request for qualifications does not commit Tetra Tech or the City of Fort Lauderdale, FL to pay any costs incurred in the preparation and submission of a **statement of qualifications** in any form. Please understand **this is not a commitment to team** with any firms at this time. Tetra Tech, Inc. is only **pre-qualifying** firms to confirm how we are going to proceed.

If you intend to respond to this **request for qualifications**, the following instructions are required:

1. Please submit a brief company overview/profile and any past history/experience with the City of Fort Lauderdale, FL.
2. Please submit name, address, phone number and email address.
3. Please submit resumes and references for the key personnel that apply to your company's service capabilities.
4. If your company is a certified MBE/DBE/WBE/SBE/MWBE, then please provide relevant vendor identification number(s) and certificates.

All responses must be received no later than 05:00 PM EST, Tuesday, November 16, 2021. However, it would be helpful if you provide your response as soon as possible!

Offeror must e-mail its proposal submission to: **Marina Armanious at Marina.Armanious@tetratech.com**

SECTION VI - COST PROPOSAL PAGE

Proposer agrees to supply the products and services at the prices bid below in accordance with the terms, conditions and specifications contained in this RFP.

Cost to the City: Contractor shall quote firm, fixed, costs for all services/products identified in this request for proposal. These firm fixed costs for the project include any costs for travel and miscellaneous expenses. No other costs will be accepted.

Notes: Attach a breakdown of costs including but not limited to labor, equipment, materials and parts.

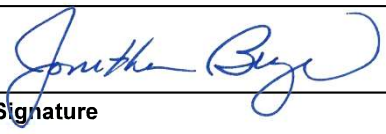
POSITION	ESTIMATED HOURS		HOURLY RATE	SUB-TOTAL
Legislative Affairs Consultant	50	X	**$ 250.00**	$ 12,500.00
Project Office/Principal	360	X	$ 95.00	$ 34,200.00
Project Manager	700	X	$ 65.00	$ 45,500.00
Operations Manager	1900	X	$ 55.00	$ 104,500.00
FEMA Reimbursement Manager	500	X	$ 95.00	$ 47,500.00
Field Supervisor	8000	X	$ 45.00	$ 360,000.00
Field Monitor	43000	X	$ 34.00	$ 1,462,000.00
TDMS and Drop-Off Site Monitors	22000	X	$ 28.50	$ 627,000.00
TDMS/Drop-Off Site Security	7560	X	$ 25.00	$ 189,000.00
Data Manager	700	X	$ 55.00	$ 38,500.00
Data Support Personnel	300	X	$ 35.00	$ 10,500.00
GIS Specialist	200	X	$ 45.00	$ 9,000.00
Operations Specialist	700	X	$ 20.00	$ 14,000.00
Engineer	400	X	$ 85.00	$ 34,000.00
Environmental Consultant	700	X	$ 55.00	$ 38,500.00
Environmental Field Technician	700	X	$ 45.00	$ 31,500.00
Inspector	300	X	$ 50.00	$ 15,000.00
Safety Consultant	50	X	$ 55.00	$ 2,750.00
Scientist	50	X	$ 85.00	$ 4,250.00
Administrative Support (Includes Invoice Reconciliation, Accounting, Report Generation)	2400	X	$ 34.00	$ 81,600.00
Data Entry Clerk	1100	X	$ 16.00	$ 17,600.00
Addl. A	1	X	$ -	$ -
Addl. B	1	X	$ -	$ -
Addl. C	1	X	$ -	$ -
Addl. D	1	X	$ -	$ -
			Total	**$ 3,179,400.00**

Tetra Tech, Inc.

Proposing Firm

Jonathan Burgiel

Name (Printed)



Signature

Business Unit President

Title

17-Nov-21

Date

6. Cost Proposal – Additional Positions

Positions for Financial Recovery, Damage Assessment, and Reconstruction Services

The exhibit below provides a listing of positions that may be required to complete the financial recovery, damage assessment, and reconstruction services listed in the City's request for proposal. The fees for these services can be provided to the City on a time and materials basis. Non-labor related expenses will be invoiced at cost, without mark-up.

Labor Category	Hourly Rate
Administrative Specialist III	$64.00
Program Planner/Scientist/Assessor/Analyst	$100.00
Consultant/Planner/Scientist/Assessor/Analyst I	$115.00
Public Assistance/Grant Management Consultant	$125.00
Senior Public Assistance/Grant Management Consultant	$145.00
Project/Program Manager/Supervising Public Assistance Consultant	$175.00
Damage Assessment/Reconstruction	
Program/QC Manager	$210.00
Project Manager/Senior Engineer	$210.00
Environmental Engineer	$210.00
Sr. Engineer/Structural	$180.00
Mid Engineer	$165.00
Jr. Engineer	$135.00
Engineering Design/CAD	$110.00
Project Administrator	$90.00

EXHIBIT A

FEDERAL UNIFORM GUIDANCE REQUIREMENTS

This is an acknowledgement that FEMA financial assistance will be used to fund the contract. The Contractor will comply will all applicable federal law, regulations, executive orders, FEMA policies, procedures, and directives. The Federal Government is not a party to the awarded contract and is not subject to any obligations or liabilities to the Client, Contractor, or any other party pertaining to any matter resulting from the contract. The Contractor acknowledges that 31 U.S.C. Chap. 38 (Administrative Remedies for False Claims and Statements) applies to the Contractor's actions pertaining to this contract.

Procurement of Recovered Materials

In the performance of this contract, the Contractor shall make maximum use of products containing recovered materials that are EPA designated items unless the product cannot be acquired:

(1) Competitively within a timeframe providing for compliance with the contract performance schedule;

(2) Meeting contract performance requirements; or

(3) At a reasonable price.

Information about this requirement is available at EPA's Comprehensive Procurement Guidelines web site, http://www.epa.gov/cpg/. The list of EPA-designate items is available at http://www.epa.gov/cpg/products.htm.

Buy America

The Contractor agrees to comply with the requirements of the Federal Buy America law (See 23 U.S.C. 313, ISTEA Sections 1041(a) and 1048(a), and FHWA's implementing regulations at 23 CFR 635.410, as they may be amended from time to time), as they relate to Federal-aid contracts and the use of steel and iron produced in the United States. Contractor shall provide a certification statement regarding the origin of all materials or products covered under the Buy America provisions and used in its performance of the Agreement in accordance with the requirements of law and the AUTHORITY, FDOT, FHWA, and FEMA, to the extent applicable.

Contracting with Small and Minority Businesses, Women's Business Enterprises and Labor Surplus Area Firms

The Client must take all necessary affirmative steps to assure that minority businesses, women's business enterprises, and labor surplus area firms are used when possible.

Affirmative steps must include:

(1) Placing qualified small and minority businesses and women's business enterprises on solicitation lists;

(2) Assuring that small and minority businesses, and women's business enterprises are solicited whenever they are potential sources;

(3) Dividing total requirements, when economically feasible, into smaller tasks or quantities to permit maximum participation by small and minority businesses, and women's business enterprises;

(4) Establishing delivery schedules, where the requirement permits, which encourage participation by small and minority businesses, and women's business enterprises.

(5) Using the services and assistance, as appropriate, of such organizations as the Small Business Administration and the Minority Business Development Agency of the Department of Commerce; and

(6) Requiring the prime Contractor, if subcontracts are to be let, to take the affirmative steps listed in paragraphs (1) through (5) of this section.

Equal Opportunity Clause

Compliance with Regulations: The Contractor shall comply with the Acts and the Regulations relative to Nondiscrimination in federally assisted programs, as they may be amended from time to time, which are herein incorporated by reference and made a part of this contract.

During the performance of any awarded "federally assisted contracts" the Contractor agrees as follows:

(1) The Contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, sexual orientation, gender identity, or national origin. The Contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, religion, sex, sexual orientation, gender identity, or national origin. Such action shall include, but not be limited to the following:

Employment, upgrading, demotion, or transfer, recruitment, or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the contracting officer setting forth the provisions of this nondiscrimination clause.

(2) The Contractor will, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, or national origin.

(3) The contractor will not discharge or in any other manner discriminate against any employee or applicant for employment because such employee or applicant has inquired about, discussed, or disclosed the compensation of the employee or applicant or another employee or applicant. This provision shall not apply to instances in which an employee who has access to the compensation information of other employees or applicants as a part of such employee's essential job functions discloses the compensation of such other employees or applicants to individuals who do not otherwise have access to such information, unless such disclosure is in response to a formal complaint or charge, in furtherance of an investigation, proceeding, hearing, or action, including an investigation conducted by the employer, or is consistent with the contractor's legal duty to furnish information.

(4) The Contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice to be provided by the agency contracting officer, advising the labor union or workers' representative of the Contractor's commitments under section 202 of Executive Order 11246 of September 24, 1965, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

(5) The Contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.

(6) The Contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by the rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the contracting

agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.

(7) In the event of the Contractor's noncompliance with the nondiscrimination clauses of this contract or with any of such rules, regulations, or orders, this contract may be canceled, terminated or suspended in whole or in part and the Contractor may be declared ineligible for further Government contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.

(8) The Contractor will include the provisions of paragraphs (1) through (7) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The Contractor will take such action with respect to any subcontract or purchase order as may be directed by the Secretary of Labor as a means of enforcing such provisions including sanctions for noncompliance:

Provided, however, that in the event the Contractor becomes involved in, or is threatened with, litigation with a sub-contractor or vendor as a result of such direction, the Contractor may request the United States to enter into such litigation to protect the interests of the United States.

Compliance with Title VI, Title VII and Other Federal Laws and Regulations

The Contractor does hereby represent and certify that it will comply with all the requirements imposed by Title VI of the Civil Rights Act of 1964 and Title VII of the Civil Rights Act of 1968, as they have been and may be modified from time to time (42 USC 2000d, *et. seq*. and 3601 *et.seq*.), and the Age Discrimination and Employment Act of 1967 and Section 303 of the Age Discrimination Act of 1975, as amended (42 USC 6102), and all applicable Federal laws and regulations, policies, procedures, and directives of the U.S. DOT, FHWA, FEMA, and/or other Federal-aid agencies, as they may be promulgated and amended from time to time.

Americans with Disabilities Act

The Contractor does hereby represent and certify that it will comply with all the requirements of the Americans with Disabilities Act of 1990 (42 USC 12102, et seq.), as it may be amended, and all applicable implementing regulations of the U.S. DOT, FHWA, FEMA and other Federal-aid agencies.

Convict Labor Prohibition

The Contractor does hereby represent and certify that it will comply with the convict labor prohibition in 23 U.S.C. 114, and all implementing regulations thereto.

Access to Records and Their Retention

The Contractor shall maintain adequate records to justify all charges, expenses, and costs incurred in estimating and performing the Agreement for at least five (5) years after completion or termination of this Agreement or closure of an "emergency event" with the Florida Division of Emergency Management, whichever comes last, except in the event of litigation or settlement of claims arising from the performance of the Agreement, the Contractor agrees to maintain said records until all litigation, claims, appeals or exceptions related thereto have been resolved.

The Contractor shall make all of its books, records, and other documents related, in any manner to its or its sub-contractors' performance of the Agreement, available to the City of Fort Lauderdale and any other funding entity (*e.g.*, FDOT, FHWA, FEMA, the Comptroller General of the U.S. or any of their authorized representatives) for the purpose of examination, audit, reproduction, excerpts and transcripts, during

normal business hours, at the Contractor's place of business. The Contractor shall also require its sub-contractors to make their books, records, and documents available for examination, audit, reproduction, excerpts, and transcripts, for the same duration and in the same manner, and at or near the same locations of Contractor.

Audit Requirements

The Contractor agrees that audits may be undertaken of its records related to its performance of the Agreement as may be authorized or required under OMB Circular A-133, as revised. The Contractor agrees that it will comply and fully cooperate with the City of Fort Lauderdale and any State and/or Federal funding agency(ies), including but not limited to FDOT, Florida's Auditor General, FHWA, FEMA, or any of their authorized representatives, in any audit or monitoring procedures or processes any such entity(ies) may undertake related to Contractor's performance of the Agreement.

National Environmental Policy Act (NEPA)

The Contractor shall cooperate with the City of Fort Lauderdale, FDOT, FHWA and FEMA so as to assure that all activities related to the performance of this Agreement comply with the requirements of the National NEPA of 1969, as amended, and the regulations and guidance related thereto.

Compliance with David-Bacon Act

When the construction, alteration, or repair of public buildings or public works is applicable to Contractor's Work, the Contractor shall comply with 40 U.S.C. § 3141 – 3144 and 3146 - 3148, as supplemented by Department of Labor regulations 29 C.F.R. pt. 5 as may be applicable, which are incorporated by reference into this contract.

The Contractor or sub-Contractor shall insert in any subcontracts the clause above and such other clauses as the FEMA may by appropriate instructions require, and also a clause requiring the sub-Contractors to include these clauses in any lower tier subcontracts. The prime Contractor shall be responsible for the compliance by any sub-Contractor or lower tier sub-Contractor with all of these contract clauses.

A breach of the contract clauses above may be grounds for termination of the contract, and for debarment as a Contractor and sub-Contractor as provided in 29 C.F.R. § 5.12.

Compliance with Copeland "Anti-Kickback" Act

The Contractor shall comply with 18 U.S.C. § 874, 40 U.S.C. § 3145, and the requirements of 29 C.F.R. pt. 3 as may be applicable, which are incorporated by reference into this contract.

The Contractor or sub-Contractor shall insert in any subcontracts the clause above and such other clauses as the FEMA may by appropriate instructions require, and also a clause requiring the sub-Contractors to include these clauses in any lower tier subcontracts. The prime Contractor shall be responsible for the compliance by any sub-Contractor or lower tier sub-Contractor with all of these contract clauses.

A breach of the contract clauses above may be grounds for termination of the contract, and for debarment as a Contractor and sub-Contractor as provided in 29 C.F.R. § 5.12.

Contract Work Hours and Safety Standards Act 40 U.S.C. 3702 and 3704- as Supplemented by Department of Labor Regulations (29 CFR Part 5)

Compliance with the Contract Work Hours and Safety Standards Act.

(1) Overtime requirements. No Contractor or sub-Contractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or

permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-halftimes the basic rate of pay for all hours worked in excess of forty hours in such workweek.

(2) Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph (1) of this section the Contractor and any sub-contractor responsible therefor shall be liable for the unpaid wages. In addition, such Contractor and sub-contractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (1) of this section, in the sum of $10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (1) of this section.

(3) Withholding for unpaid wages and liquidated damages. The Client shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the Contractor or sub-contractor under any such contract or any Disaster Debris Disposal and Removal Services 53 Federal contract with the same prime Contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime Contractor, such sums as may be determined to be necessary to satisfy any liabilities of such Contractor or sub-contractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph of this section.

Rights to Inventions Made Under a Contract or Agreement

If the Federal award meets the definition of ‘‘funding agreement’’ under 37 CFR § 401.2 and the recipient or subrecipient wishes to enter into a contract with a small business firm or nonprofit organization regarding the substitution of parties, assignment or performance of experimental, developmental, or research work under that ‘‘funding agreement,’’ the recipient or subrecipient must comply with the requirements of 37 CFR Part 401, ‘‘Rights to Inventions Made by Nonprofit Organizations and Small Business Firms Under Government Grants, Contracts and Cooperative Agreements,’’ and any implementing regulations issued by the awarding agency.

Clean Air Act and the Federal Water Pollution Control Act

Contractor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act (42 U.S.C. 7401-7671q) and the Federal Water Pollution Control Act as amended (33 U.S.C. 1251-1387) and must report violations to FEMA and the Regional Office of the Environmental Protection Agency (EPA).

Energy Efficiency and Conservation Act

Contractor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Energy Policy and Conservation Act (42 U.S.C. 6201) and the provisions of the state Energy Conservation Plan adopted pursuant thereto.

Suspension and Debarment

This contract is a covered transaction for purposes of 2 C.F.R. pt. 180 and 2 C.F.R. pt. 3000. As such the Contractor is required to verify that none of the Contractor, its principals (defined at 2 C.F.R. § 180.995), or its affiliates (defined at 2 C.F.R. § 180.905) are excluded (defined at 2 C.F.R. § 180.940) or disqualified (defined at 2 C.F.R. § 180.935).

The Contractor must comply with 2 C.F.R. pt. 180, subpart C and 2 C.F.R. pt. 3000, subpart C and must include a requirement to comply with these regulations in any lower tier covered transaction it enters into.

This certification is a material representation of fact relied upon by the Client. If it is later determined that the Contractor did not comply with 2 C.F.R. pt. 180, subpart C and 2 C.F.R. pt. 3000, subpart C, in addition to remedies available to the State and the Client, the Federal Government may pursue available remedies, including but not limited to suspension and/ or debarment.

The Contractor agrees to comply with the requirements of 2 C.F.R. pt. 180, subpart C and 2 C.F.R. pt. 3000, subpart C while this offer is valid and throughout the Disaster Debris Disposal and Removal Services period of any contract that may arise from this contract. The Contractor further agrees to include a provision requiring such compliance in its lower tier covered transactions.

Byrd Anti-Lobbying Amendment 31 U.S.C. § 1352 (As Amended)

Contractors who apply or bid for an award of $100,000 or more shall file the required certification. Each tier certifies to the tier above that it will not and has not used Federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a member of Congress, officer or employee of Congress, or an employee of a member of Congress in connection with obtaining any Federal contract, grant, or any other award covered by 31 U.S.C. § 1352. Each tier shall also disclose any lobbying with non-Federal funds that takes place in connection with obtaining any Federal award. Such disclosures are forwarded from tier to tier up to the recipient.

DHS Seal, Logo, and Flags

The Contractor shall not use the DHS seal(s), logos, crests, or reproductions of flags or likenesses of DHS agency officials without specific FEMA pre- approval.

No Obligation to Federal Government

The Federal Government is not a party to this contract and is not subject to any obligations or liabilities to the non-Federal entity, contractor, or any other party pertaining to any matter resulting from the contract.

Prohibition on Contracting for Covered Telecommunications Equipment or Services

(a) Definitions. As used in this clause, the terms backhaul; covered foreign country; covered telecommunications equipment or services; interconnection arrangements; roaming; substantial or essential component; and telecommunications equipment or services have the meaning as defined in FEMA Policy 405-143-1, Prohibitions on Expending FEMA Award Funds for Covered Telecommunications Equipment or Services (Interim), as used in this clause.

(b) Prohibitions.

(1) Section 889(b) of the John S. McCain National Defense Authorization Act for Fiscal Year 2019, Pub. L. No. 115-232, and 2 C.F.R. § 200.216 prohibit the head of an executive agency on or after Aug.13, 2020, from obligating or expending grant, cooperative agreement, loan, or loan guarantee funds on certain telecommunications products or from certain entities for national security reasons.

(2) Unless an exception in paragraph (c) of this clause applies, the contractor and its subcontractors may not use grant, cooperative agreement, loan, or loan guarantee funds from the Federal Emergency Management Agency to:

(i) Procure or obtain any equipment, system, or service that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology of any system;

(ii) Enter into, extend, or renew a contract to procure or obtain any equipment, system, or service that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology of any system;

(ii) Enter into, extend, or renew contracts with entities that use covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system; or (iv) Provide, as part of its performance of this contract, subcontract, or other contractual instrument, any equipment, system, or service that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system.

(c) Exceptions.

(1) This clause does not prohibit contractors from providing—

(i) A service that connects to the facilities of a third-party, such as backhaul, roaming, or interconnection arrangements; or Contract Provisions Guide 28

(ii) Telecommunications equipment that cannot route or redirect user data traffic or permit visibility into any user data or packets that such equipment transmits or otherwise handles.

(2) By necessary implication and regulation, the prohibitions also do not apply to:

(i) Covered telecommunications equipment or services that: i. Are not used as a substantial or essential component of any system; and ii. Are not used as critical technology of any system.

(ii) Other telecommunications equipment or services that are not considered covered telecommunications equipment or services.

(d) Reporting requirement.

(1) In the event the contractor identifies covered telecommunications equipment or services used as a substantial or essential component of any system, or as critical technology as part of any system, during contract performance, or the contractor is notified of such by a subcontractor at any tier or by any other source, the contractor shall report the information in paragraph (d)(2) of this clause to the recipient or subrecipient, unless elsewhere in this contract are established procedures for reporting the information.

(2) The Contractor shall report the following information pursuant to paragraph (d)(1) of this clause:

(i) Within one business day from the date of such identification or notification: The contract number; the order number(s), if applicable; supplier name; supplier unique entity identifier (if known); supplier Commercial and Government Entity (CAGE) code (if known); brand; model number (original equipment manufacturer number, manufacturer part number, or wholesaler number); item description; and any readily available information about mitigation actions undertaken or recommended.

(ii) Within 10 business days of submitting the information in paragraph (d)(2)(i) of this clause: Any further available information about mitigation actions undertaken or recommended. In addition, the contractor shall describe the efforts it undertook to prevent use or submission of covered telecommunications equipment or services, and any additional efforts that will be incorporated to prevent future use or submission of covered telecommunications equipment or services. (e) Subcontracts. The Contractor shall insert the substance of this clause, including this paragraph (e), in all subcontracts and other contractual instruments."

(e) Subcontracts. The Contractor shall insert the substance of this clause, including this paragraph (e), in all subcontracts and other contractual instruments.

CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION

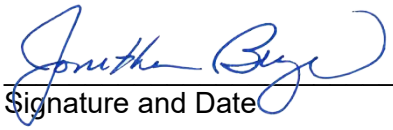
Contractor Covered Transactions

The prospective Contractor of the Recipient, Tetra Tech, Inc., certifies, by submission of this document, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible or voluntarily excluded from participation in this transaction by any federal department or agency.

Where the Recipient's Contractor is unable to certify to the above statement, the prospective Contractor shall attach an explanation to this form.

Tetra Tech, Inc.

Contractor / Firm



11/16/2021

Signature and Date

Jonathan Burgiel, Business Unit President

Name and Title (Printed)

4601 Sheridan Street, Suite 212

Street Address

Hollywood, FL 33021

City, State, Zip

RFP# 12527-825

Division Contract Number

TBD

FEMA Project Number

CERTIFICATION FOR CONTRACTS, GRANTS, LOANS, AND COOPERATIVE AGREEMENTS

The undersigned certifies, to the best of his or her knowledge, that:

1. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
2. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.
3. The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31, U.S.C. § 1352 (as amended by the Lobbying Disclosure Act of 1995). Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

The Contractor/Firm, Tetra Tech, Inc., certifies or affirms the truthfulness and accuracy of each statement of its certification and disclosure, if any. In addition, the Contractor understands and agrees that the provisions of 31 U.S.C. § 3801 et seq., apply to this certification and disclosure, if any.

Signature of Contractor's Authorized Official

Jonathan Burgiel, Business Unit President

Print Name and Title of Contractor's Authorized Official

November 16, 2021

Date

CERTIFICATE OF LIABILITY INSURANCE

DATE(MM/DD/YYYY) 10/01/2021

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER	CONTACT NAME:	
Aon Risk Insurance Services West, Inc. Los Angeles CA Office 707 Wilshire Boulevard Suite 2600 Los Angeles CA 90017-0460 USA	PHONE (A/C. No. Ext): (866) 283-7122	FAX (A/C. No.): (800) 363-0105
	E-MAIL ADDRESS:	

INSURED	INSURER(S) AFFORDING COVERAGE		NAIC #
Tetra Tech, Inc. 3475 E. Foothill Boulevard Pasadena, CA 91107 USA	INSURER A:	Lexington Insurance Company	19437
	INSURER B:	Zurich American Insurance Company	16535
	INSURER C:	American International Group UK Limited	AA1120841
	INSURER D:		
	INSURER E:		
	INSURER F:		

COVERAGES **CERTIFICATE NUMBER:** **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

Limits shown are as requested

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
B	X **COMMERCIAL GENERAL LIABILITY** CLAIMS-MADE X OCCUR X X,C,U Coverage GEN'L AGGREGATE LIMIT APPLIES PER: POLICY X PRO-JECT X LOC OTHER:			GL01817406-03	10/01/2021	10/01/2022	EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurrence) MED EXP (Any one person) PERSONAL & ADV INJURY GENERAL AGGREGATE PRODUCTS - COMP/OP AGG	$2,000,000 $1,000,000 $10,000 $2,000,000 $4,000,000 $4,000,000
B	**AUTOMOBILE LIABILITY** X ANY AUTO OWNED AUTOS ONLY X HIRED AUTOS ONLY SCHEDULED AUTOS X NON-OWNED AUTOS ONLY			BAP1857085-03	10/01/2021	10/01/2022	COMBINED SINGLE LIMIT (Ea accident) BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident)	$5,000,000
C	X **UMBRELLA LIAB** X OCCUR **EXCESS LIAB** CLAIMS-MADE DED X RETENTION $100,000			62785232	10/01/2021	10/01/2022	EACH OCCURRENCE AGGREGATE	$5,000,000 $5,000,000
B B	**WORKERS COMPENSATION AND EMPLOYERS' LIABILITY** ANY PROPRIETOR / PARTNER / EXECUTIVE OFFICER/MEMBER EXCLUDED? Y/N: N **(Mandatory in NH)** If yes, describe under DESCRIPTION OF OPERATIONS below	N / A		WC2540616-03 WC1857087-03	10/01/2021 10/01/2021	10/01/2022 10/01/2022	X PER STATUTE OTH-ER E.L. EACH ACCIDENT E.L. DISEASE-EA EMPLOYEE E.L. DISEASE-POLICY LIMIT	 $1,000,000 $1,000,000 $1,000,000
A	Professional Liability and Contractor's Pollution Liability			028182375 Prof/Poll Liab SIR applies per policy terms & conditions	10/01/2021	10/01/2022	Each Claim Aggregate	$5,000,000 $5,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

CERTIFICATE HOLDER

Evidence of Insurance

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

Aon Risk Insurance Services West, Inc.

ACORD 25 (2016/03) **The ACORD name and logo are registered marks of ACORD**

Form **W-9**
(Rev. August 2013)
Department of the Treasury
Internal Revenue Service

Request for Taxpayer Identification Number and Certification

Give Form to the requester. Do not send to the IRS.

Print or type
See Specific Instructions on page 2.

Name (as shown on your income tax return)
Tetra Tech, Inc.

Business name/disregarded entity name, if different from above

Check appropriate box for federal tax classification:
☐ Individual/sole proprietor ☑ C Corporation ☐ S Corporation ☐ Partnership ☐ Trust/estate

☐ Limited liability company. Enter the tax classification (C=C corporation, S=S corporation, P=partnership) ▶

☐ Other (see instructions) ▶

Exemptions (see instructions):
Exempt payee code (if any)
Exemption from FATCA reporting code (if any)

Address (number, street, and apt. or suite no.)
3475 East Foothill Boulevard

Requester's name and address (optional)

City, state, and ZIP code
Pasadena, CA 91107

List account number(s) here (optional)

Part I Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. The TIN provided must match the name given on the "Name" line to avoid backup withholding. For individuals, this is your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the Part I instructions on page 3. For other entities, it is your employer identification number (EIN). If you do not have a number, see *How to get a TIN* on page 3.

Note. If the account is in more than one name, see the chart on page 4 for guidelines on whose number to enter.

Social security number
			–			–				

Employer identification number
9	5	–	4	1	4	8	5	1	4

Part II Certification

Under penalties of perjury, I certify that:

1. The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me), and
2. I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding, and
3. I am a U.S. citizen or other U.S. person (defined below), and
4. The FATCA code(s) entered on this form (if any) indicating that I am exempt from FATCA reporting is correct.

Certification instructions. You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and generally, payments other than interest and dividends, you are not required to sign the certification, but you must provide your correct TIN. See the instructions on page 3.

Sign Here Signature of U.S. person ▶ [signature] Date ▶ November 9, 2021

General Instructions

Section references are to the Internal Revenue Code unless otherwise noted.

Future developments. The IRS has created a page on IRS.gov for information about Form W-9, at *www.irs.gov/w9*. Information about any future developments affecting Form W-9 (such as legislation enacted after we release it) will be posted on that page.

Purpose of Form

A person who is required to file an information return with the IRS must obtain your correct taxpayer identification number (TIN) to report, for example, income paid to you, payments made to you in settlement of payment card and third party network transactions, real estate transactions, mortgage interest you paid, acquisition or abandonment of secured property, cancellation of debt, or contributions you made to an IRA.

Use Form W-9 only if you are a U.S. person (including a resident alien), to provide your correct TIN to the person requesting it (the requester) and, when applicable, to:

1. Certify that the TIN you are giving is correct (or you are waiting for a number to be issued),
2. Certify that you are not subject to backup withholding, or
3. Claim exemption from backup withholding if you are a U.S. exempt payee. If applicable, you are also certifying that as a U.S. person, your allocable share of any partnership income from a U.S. trade or business is not subject to the withholding tax on foreign partners' share of effectively connected income, and
4. Certify that FATCA code(s) entered on this form (if any) indicating that you are exempt from the FATCA reporting, is correct.

Note. If you are a U.S. person and a requester gives you a form other than Form W-9 to request your TIN, you must use the requester's form if it is substantially similar to this Form W-9.

Definition of a U.S. person. For federal tax purposes, you are considered a U.S. person if you are:

- An individual who is a U.S. citizen or U.S. resident alien,
- A partnership, corporation, company, or association created or organized in the United States or under the laws of the United States,
- An estate (other than a foreign estate), or
- A domestic trust (as defined in Regulations section 301.7701-7).

Special rules for partnerships. Partnerships that conduct a trade or business in the United States are generally required to pay a withholding tax under section 1446 on any foreign partners' share of effectively connected taxable income from such business. Further, in certain cases where a Form W-9 has not been received, the rules under section 1446 require a partnership to presume that a partner is a foreign person, and pay the section 1446 withholding tax. Therefore, if you are a U.S. person that is a partner in a partnership conducting a trade or business in the United States, provide Form W-9 to the partnership to establish your U.S. status and avoid section 1446 withholding on your share of partnership income.

Detail by Entity Name

Foreign Profit Corporation
TETRA TECH, INC.

Filing Information

Document Number	P19034
FEI/EIN Number	95-4148514
Date Filed	04/28/1988
State	DE
Status	ACTIVE
Last Event	CORPORATE MERGER
Event Date Filed	12/30/2003
Event Effective Date	01/02/2004

Principal Address

3475 E. FOOTHILL BLVD.
PASADENA, CA 91107

Changed: 07/14/2003

Mailing Address

3475 E. FOOTHILL BLVD.
PASADENA, CA 91107

Changed: 07/14/2003

Registered Agent Name & Address

CT CORPORATION SYSTEM
1200 S. PINE ISLAND ROAD
PLANTATION, FL 33324

Name Changed: 03/18/1992

Address Changed: 03/18/1992

Officer/Director Detail

Name & Address

Title Senior Vice President, Chief Engineer

BROWNLIE, WILLIAM R
3475 E. Foothill Blvd.
Pasadena, CA 91107

City of Fort Lauderdale • Procurement Services Division
100 N. Andrews Avenue, 619 • Fort Lauderdale, Florida 33301
954-828-5933 Fax 954-828-5576
purchase@fortlauderdale.gov

ADDENDUM NO. 1

RFP No. 12527-825
TITLE: Disaster Debris Management, Cost Recovery, Project Management and Other Support Services

ISSUED: November 9, 2021

This addendum is being issued to make the following change(s):

1. Sections 2.23 and 2.24 have been changed:

WAS:

2.23 Proposal Security

2.23.1 A proposal security payable to the City of Fort Lauderdale shall be submitted with the proposal response in the amount of five percent (5%) of the total proposed amount. A proposal security can be in the form of a bid/proposal bond or cashier's check. Proposal security will be returned to the unsuccessful contractor as soon as practicable after opening of proposals. Proposal security will be returned to the successful Proposer after acceptance of the Payment and Performance Bond, if required; acceptance of insurance coverage, if required; and full execution of contract documents, if required; or other conditions as stated in Special Conditions or elsewhere in the RFP.

2.23.2 BidSync allows bidders/proposers to submit bid/proposal bonds electronically directly through their system using **Surety 2000**. For more information on this feature and to access it, contact BIDSYNC customer care department.

2.23.3 The Proposer may choose to mail their original executed bid/proposal bond or upload the bid/proposal bond on BidSync to accompany their electronic proposal and then deliver the original, signed and sealed bid/proposal bond within five (5) business days from the solicitation end date or it will be determined as non-responsive. A bid/proposal security in the form of a cashier's check must be an original document and must be submitted at time of the bid/proposal due date. If choosing the cashier's check method, plan in advance to send via United States Postal Service or air freight carrier to ensure cashier's check arrives on or before bid/proposal opening or closing deadline.

City of Fort Lauderdale • Procurement Services Division
100 N. Andrews Avenue, 619 • Fort Lauderdale, Florida 33301
954-828-5933 Fax 954-828-5576
purchase@fortlauderdale.gov

a. Deliver via United States Postal Service or air freight carrier to City of Fort Lauderdale City Hall, Procurement Services Division, 6th floor, Suite 619, 100 N. Andrews Avenue, Fort Lauderdale, FL 33301.

b. Include company name, solicitation number and title clearly indicated outside of the envelope.

2.23.4 Failure of the successful proposer to execute a contract, provide a Performance Bond, and furnish evidence of appropriate insurance coverage, as provided herein, within thirty (30) days after written notice of award has been given, shall be just cause for the annulment of the award and the forfeiture of the proposal security to the City, which forfeiture shall be considered, not as a penalty, but as liquidation of damages sustained.

2.24 Payment and Performance Bond

2.24.1 The Proposer shall within fifteen (15) working days after notification of award, furnish to the City a Payment and Performance Bond, in the amount of the proposed price as surety for faithful performance under the terms and conditions of the contract. If the bond is on an annual coverage basis, renewal for each succeeding year shall be submitted to the City thirty (30) days prior to the termination date of the existing Payment and Performance Bond. The Performance Bond must be executed by a surety company or recognized standing to do business in the State of Florida and having a resident agent.

2.24.2 The Proposer must have a Financial Size Categories (FSC) rating of no less than "A-" by the latest edition of Best's Key Rating Guide, or acceptance of insurance company that holds a valid Florida Certificate of Authority issued by the State of Florida, Department of Insurance, and are members of the Florida Guarantee Fund.

2.24.3 Acknowledgement and agreement is given by both parties that the amount herein set for the Payment and Performance Bond is not intended to be nor shall be deemed to be in the nature of liquidated damages nor is it intended to limit the liability of the Contractor to the City in the event of a material breach of this Agreement by the Contractor.

CHANGED TO:

2.23 Proposal Security

2.23.1 Each proposal must be accompanied by a letter from a surety verifying the Proposer's bonding capacity of at least $1,000,000.

2.24 Payment and Performance Bond

2.24.1 Upon receipt of a Notice to Proceed from the City, the awarded Contractor shall be required to furnish a Payment and Performance Bond in the amount equal to one hundred percent (100%) of the estimated cost of the

City of Fort Lauderdale • Procurement Services Division
100 N. Andrews Avenue, 619 • Fort Lauderdale, Florida 33301
954-828-5933 Fax 954-828-5576
purchase@fortlauderdale.gov

services to be rendered. A Performance and Payment Bond in the amount one hundred percent (100%) of the work authorized by the City in a Task Order shall be provided by the Contractor to the City within seven (7) days of issuance of the Task Order. The cost of bonds and insurance shall be borne by the Contractor and shall not be separately charged or reimbursed by the City. This Bond shall remain in effect at least until one year after the date when final payment becomes due, except as provided otherwise by Laws or Regulations or by the Contract Documents.

2.24.2 The Proposer must have a Financial Size Categories (FSC) rating of no less than "A-" by the latest edition of Best's Key Rating Guide, or acceptance of insurance company that holds a valid Florida Certificate of Authority issued by the State of Florida, Department of Insurance, and are members of the Florida Guarantee Fund.

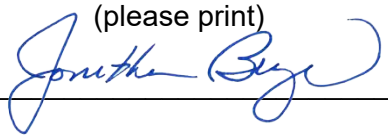
2.24.3 Acknowledgement and agreement is given by both parties that the amount herein set for the Payment and Performance Bond is not intended to be nor shall be deemed to be in the nature of liquidated damages nor is it intended to limit the liability of the Contractor to the City in the event of a material breach of this Agreement by the Contractor.

2. **All proposers shall sign this addendum acknowledging receipt and switch out Section II and replace with the Revised Section II attached to this addendum.**

All other terms, conditions, and specifications remain unchanged.

Laurie Platkin
Senior Procurement Specialist

Company Name: Tetra Tech, Inc.
(please print)

Proposer's Signature: 

Date: November 16, 2021

Zurich North America Surety Phone 213-270-0803

777 S. Figueroa Street, Suite 3900 Fax 213-270-0845
Los Angeles, CA 90017

November 16, 2021

City of Fort Lauderdale
Procurement Services Division
100 N. Andrews Avenue, 619
Fort Lauderdale, FL 33301

RE: Tetra Tech, Inc.
Bonding Capacity Letter
Request for Proposal No. 12527-825 for Disaster Debris Management, Cost Recovery, Project Management and Other Support Services

To Whom It May Concern:

Zurich American Insurance Company ("Zurich") acts as surety for Tetra Tech, Inc. (“Tt") and its contracting matters. Zurich enjoys the A.M. Best's Guide rating of A+XV respectively and is listed in the Federal Register as a surety acceptable for Federal projects, and is a licensed, admitted surety in all fifty United States.

Tt is an organization, which has in the past obtained construction contracts in excess of $350,000,000 in size with an aggregate bond capacity of approximately $750,000,000. This would not preclude us from considering projects and programs with a project amount of at least $1,000,000.00. The statement of these values is neither a commitment nor a limitation of the bonding capacity of Tt. At the request of Tt, Zurich will give favorable consideration to providing the required performance and payment bonds.

Please note that the decision to issue performance and payment bonds is a matter between Tt and Zurich and will be subject to underwriting at the time of the final bond request, which will include but not limited to the acceptability of the contract documents, bond forms and financing.

Sincerely,

ZURICH AMERICAN INSURANCE COMPANY

B. Aleman, Attorney-in-Fact

REFERENCES

A minimum of three (3) references shall be provided:

1. **Company Name: City of Pensacola, Florida**
   Address: **2759 North Palafox Street**
   Pensacola, FL 32501
   Contact: **John Pittman**
   Phone #: **(850) 860-2334** Email: **JPittman@cityofpensacola.com**
   Contract Value: **$1,109,949** Year: **2020**
   Description: **Tetra Tech monitored the collection of more than 574,000 cubic yards and over 4,500 hanging tree limbs. We monitored disposal at three debris management sites and two final disposal sites. Our monitoring efforts included both the contract debris haulers vehicles as well as City of Pensacola trucks that assisted in the debris mission. In addition to traditional debris monitoring services, Tetra Tech assisted the City in identifying and opening additional debris management sites and assisted the City in cost-justifying a major amendment to the debris haulerÃƒÂ¢Ã‚Â€Ã‚Â™s contract.**

2. **Company Name: Pinellas County, Florida**
   Address: **22211 US Highway 19N, Building 1**
   Clearwater, FL 33765
   Contact: **Sean Tipton**
   Phone #: **(727) 464-8809** Email: **stipton@co.pinellas.fl.us**
   Contract Value: **$1,759,698** Year: **2018**
   Description: **Pinellas County activated the Tetra Tech team to conduct post-disaster debris monitoring services under a pre-positioned contract. Our management team was on-site within hours of the storm passing to conduct initial damage assessments and begin monitoring the cleanup process. Over 120 local personnel were hired as debris monitors, documenting over 12,000 loads of debris. This totaled over 380,000 cubic yards of debris removed from County roads. In addition, the County allowed its municipalities to use County disposal locations to ease the burden of long-haul distances. Tetra Tech coordinated and tracked the segregation of debris by origin at multiple disposal sites.**

3. **Company Name: City of Houston, Texas**
   Address: **611 Walker Street, 12th Floor**
   Houston, TX 77002
   Contact: **Mark Wilfalk**
   Phone #: **(713) 837-0311** Email: **mark.wilfalk@houstontx.gov**
   Contract Value: **$12,000,000** Year: **2019**

Description: **For over a decade, we have assisted the City of Houston. Our team most recently responding to disaster relief efforts as a result of Hurricane Harvey, the most powerful storm to impact the Texas coast since 1961. Our team remained on-site before, during, and after the impact of the storm, thus facilitating an immediate response and ramp-up for debris monitoring operations. Our team hired nearly 250 local monitors and monitored the removal of approximately 2.5 million cubic yards of land debris and 50,000 yards of wet debris.**

4. **Company Name: Baldwin County, Alabama**

   Address: **22251 Palmer Street**

   Robertsdale, AL 36567

   Contact: **Terri Graham**

   Phone #: **(251) 972-6878** Email: **TGraham@baldwincountyal.gov**

   Contract Value: **$6,910,848** Year: **2021**

   Description: **Our on-site project management team rapidly mobilized debris operations, hiring and training 224 local debris monitors to oversee field debris removal and disposal at 12 DMS across the County. Tetra Tech utilized our proprietary ADMS, RecoveryTrac, to successfully collect an extensive amount of debris data, and then established a geoportal to provide the County with real-time recovery operations reporting.**
   To date, our team has monitored the removal of over 1,978,870 cubic yards of debris, 39,469 hanging tree limbs, and 5,887 hazardous trees. Our team continues to assist Baldwin County in responding to this storm and will remain by the CountyÃƒÂ¢Ã‚ÂÃ‚Â™s side through their long-term recovery.

5. **Company Name: City of Miami, Florida**

   Address: **3500 Pan American Drive**

   Miami, FL 33133

   Contact: **Zerry Ihekwaba, PhD, PE**

   Phone #: **(305) 468-5900** Email: **NIhekwaba@miamigov.com**

   Contract Value: **$3,911,307** Year: **2018**

   Description: **Following Hurricane Irma, Tetra Tech staff was on the ground within 12 hours of impact and engaged in the immediate tasks of assisting with temporary site permitting,**

coordinating primary clearance routes with the CityÃƒÂ¢Ã‚Ã‚Â™s debris haulers, forecasting debris removal operations, and training new staff.

Tetra Tech eventually hired over 130 monitors to document the removal of nearly 15,000 loads of eligible debris totaling over half a million cubic yards. As debris removal operations ended, Tetra Tech continued to work with the City on updating its Request for Proposals (RFP) for debris removal contractor procurement and updating the Disaster Debris Management Plan.

NON-COLLUSION STATEMENT:

By signing this offer, the vendor/contractor certifies that this offer is made independently and *free* from collusion. Vendor shall disclose below any City of Fort Lauderdale, FL officer or employee, or any relative of any such officer or employee who is an officer or director of, or has a material interest in, the vendor's business, who is in a position to influence this procurement.

Any City of Fort Lauderdale, FL officer or employee who has any input into the writing of specifications or requirements, solicitation of offers, decision to award, evaluation of offers, or any other activity pertinent to this procurement is presumed, for purposes hereof, to be in a position to influence this procurement.

For purposes hereof, a person has a material interest if they directly or indirectly own more than 5 percent of the total assets or capital stock of any business entity, or if they otherwise stand to personally gain if the contract is awarded to this vendor.

In accordance with City of Fort Lauderdale, FL Policy and Standards Manual, 6.10.8.3,

> 3.3. City employees may not contract with the City through any corporation or business entity in which they or their immediate family members hold a controlling financial interest (e.g. ownership of five (5) percent or more).
>
> 3.4. Immediate family members (spouse, parents and children) are also prohibited from contracting with the City subject to the same general rules.

Failure of a vendor to disclose any relationship described herein shall be reason for debarment in accordance with the provisions of the City Procurement Code.

NAME	RELATIONSHIPS
N/A	

In the event the vendor does not indicate any names, the City shall interpret this to mean that the vendor has indicated that no such relationships exist.

Jonathan Burgiel Authorized Signature	**Business Unit President** Title
Jonathan Burgiel Name (Printed)	**11/16/2021** Date

CONTRACTOR'S CERTIFICATE OF COMPLIANCE WITH NON-DISCRIMINATION PROVISIONS OF THE CONTRACT

The completed and signed form should be returned with the Contractor's submittal. If not provided with submittal, the Contractor must submit within three business days of City's request. Contractor may be deemed non-responsive for failure to fully comply within stated timeframes.

Pursuant to City Ordinance Sec. 2-187(c), bidders must certify compliance with the Non-Discrimination provision of the ordinance.

The Contractor shall not, in any of his/her/its activities, including employment, discriminate against any individual on the basis of race, color, national origin, religion, creed, sex, disability, sexual orientation, gender, gender identity, gender expression, or marital status.

1. The Contractor certifies and represents that he/she/it will comply with Section 2-187, Code of Ordinances of the City of Fort Lauderdale, Florida, as amended by Ordinance C-18-33 (collectively, "Section 2-187").

2. The failure of the Contractor to comply with Section 2-187 shall be deemed to be a material breach of this Agreement, entitling the City to pursue any remedy stated below or any remedy provided under applicable law.

3. The City may terminate this Agreement if the Contractor fails to comply with Section 2-187.

4. The City may retain all monies due or to become due until the Contractor complies with Section 2-187.

5. The Contractor may be subject to debarment or suspension proceedings. Such proceedings will be consistent with the procedures in section 2-183 of the Code of Ordinances of the City of Fort Lauderdale, Florida.

Jonathan Burgiel
Authorized Signature

Jonathan Burgiel, Business Unit President
Print Name and Title

11/16/2021
Date

CONTRACT PAYMENT METHOD

The City of Fort Lauderdale has implemented a Procurement Card (P-Card) program which changes how payments are remitted to its vendors. The City has transitioned from traditional paper checks to credit card payments via MasterCard or Visa as part of this program.

This allows you as a vendor of the City of Fort Lauderdale to receive your payments fast and safely. No more waiting for checks to be printed and mailed.

In accordance with the contract, payments on this contract will be made utilizing the City's P-Card (MasterCard or Visa). Accordingly, bidders must presently have the ability to accept these credit cards or take whatever steps necessary to implement acceptance of a card before the start of the contract term, or contract award by the City.

All costs associated with the Contractor's participation in this purchasing program shall be borne by the Contractor. The City reserves the right to revise this program as necessary.

By signing below you agree with these terms.

Please indicate which credit card payment you prefer:

- [ ] MasterCard
- [x] Visa

Tetra Tech, Inc.
Company Name

Jonathan Burgiel
Name (Printed)

11/16/2021
Date

Jonathan Burgiel
Signature

Business Unit President
Title

E-VERIFY AFFIRMATION STATEMENT

RFP/Bid /Contract No: **12527-825**

Project Description: **Disaster Debris Management, Cost Recovery, Project Management and Other Support Services**

Contractor/Proposer/Bidder acknowledges and agrees to utilize the U.S. Department of Homeland Security's E-Verify System to verify the employment eligibility of,

(a) all persons employed by Contractor/Proposer/Bidder to perform employment duties within Florida during the term of the Contract, and,

(b) all persons (including subcontractors/vendors) assigned by Contractor/Proposer/Bidder to perform work pursuant to the Contract.

The Contractor/Proposer/Bidder acknowledges and agrees that use of the U.S. Department of Homeland Security's E-Verify System during the term of the Contract is a condition of the Contract.

Contractor/Proposer/ Bidder Company Name: **Tetra Tech, Inc.**

Authorized Company Person's Signature: **Jonathan Burgiel**

Authorized Company Person's Title: **Jonathan Burgiel**

Date: **11/16/2021**

9/15/2020

BID/PROPOSAL CERTIFICATION

Please Note: It is the sole responsibility of the bidder to ensure that his bid is submitted electronically through www.BidSync.com prior to the bid opening date and time listed. Paper bid submittals will not be accepted. All fields below must be completed. If the field does not apply to you, please note N/A in that field.

If you are a foreign corporation, you may be required to obtain a certificate of authority from the department of state, in accordance with Florida Statute §607.1501 (visit http://www.dos.state.fl.us/).

Company: (Legal Registration) **Tetra Tech, Inc.**EIN (Optional): **95-4148514**

Address: **4601 Sheridan Street, Suite 212**

City: **Hollywood**State: **FL**Zip: **33021**

Telephone No.: **(321) 441-8518**FAX No.: **(321) 441-8501**Email: **tdr.contracts@tetratech.com**

Delivery: Calendar days after receipt of Purchase Order **(section 1.02 of General Conditions)**: **TBD**

Total Bid Discount **(section 1.05 of General Conditions)**: **0**

Check box if your firm qualifies for MBE / SBE / WBE **(section 1.09 of General Conditions)**: ☐

ADDENDUM ACKNOWLEDGEMENT - Proposer acknowledges that the following addenda have been received and are included in the proposal:

Addendum No.	Date Issued	Addendum No.	Date Issued	Addendum No.	Date Issued
1	**11/9/2021**				

VARIANCES: If you take exception or have variances to any term, condition, specification, scope of service, or requirement in this competitive solicitation you must specify such exception or variance in the space provided below or reference in the space provided below all variances contained on other pages within your response. Additional pages may be attached if necessary. No exceptions or variances will be deemed to be part of the response submitted unless such is listed and contained in the space provided below. The City does not, by virtue of submitting a variance, necessarily accept any variances. If no statement is contained in the below space, it is hereby implied that your response is in full compliance with this competitive solicitation. If you do not have variances, simply mark N/A. **You must also click the "Take Exception" button.**

None

The below signatory hereby agrees to furnish the following article(s) or services at the price(s) and terms stated subject to all instructions, conditions, specifications addenda, legal advertisement, and conditions contained in the bid/proposal.

I have read all attachments including the specifications and fully understand what is required. By submitting this signed proposal, I will accept a contract if approved by the City and such acceptance covers all terms, conditions, and specifications of this bid/proposal. The below signatory also hereby agrees, by virtue of submitting or attempting to submit a response, that in no event shall the City's liability for respondent's direct, indirect, incidental, consequential, special or exemplary damages, expenses, or lost profits arising out of this competitive solicitation process, including but not limited to public advertisement, bid conferences, site visits, evaluations, oral presentations, or award proceedings exceed the amount of Five Hundred Dollars ($500.00). This limitation shall not apply to claims arising under any provision of indemnification or the City's protest ordinance contained in this competitive solicitation.

Submitted by:

Jonathan Burgiel Name (printed)	**Jonathan Burgiel** Signature
11/16/2021 Date	**Business Unit President** Title

Revised 4/28/2020

SAM.GOV®

TETRA TECH, INC.

DUNS Unique Entity ID	SAM Unique Entity ID	CAGE / NCAGE
602750762	**QD4QX6MAJ3L8**	**1K3R7**
Purpose of Registration	Registration Status	Expiration Date
All Awards	**Active**	**Nov 30, 2021**
Physical Address	Mailing Address	
250 W Court ST STE 200W **Cincinnati, Ohio 45202-1072** **United States**	**250 W Court ST STE 200W** **Cincinnati, Ohio 45202-1072** **United States**	

Business Information

Doing Business as	Division Name	Division Number
(blank)	**Cincinnati**	**(blank)**
Congressional District	State / Country of Incorporation	URL
Ohio 01	**Delaware / United States**	**http://www.tetratech.com**

Registration Dates

Activation Date	Submission Date	Initial Registration Date
Dec 2, 2020	**Nov 30, 2020**	**Jan 24, 2002**

Entity Dates

Entity Start Date	Fiscal Year End Close Date
Jan 1, 1998	**Sep 30**

Immediate Owner

CAGE	Legal Business Name
078E8	**TETRA TECH, INC.**

Highest Level Owner

CAGE	Legal Business Name
(blank)	**(blank)**

Executive Compensation

Registrants in the System for Award Management (SAM) respond to the Executive Compensation questions in accordance with Section 6202 of P.L. 110-252, amending the Federal Funding Accountability and Transparency Act (P.L. 109-282). This information is not displayed in SAM. It is sent to USAspending.gov for display in association with an eligible award. Maintaining an active registration in SAM demonstrates the registrant responded to the questions.

Proceedings Questions

Registrants in the System for Award Management (SAM) respond to proceedings questions in accordance with FAR 52.209-7, FAR 52.209-9, or 2.C.F.R. 200 Appendix XII. Their responses are not displayed in SAM. They are sent to FAPIIS.gov for display as applicable. Maintaining an active registration in SAM demonstrates the registrant responded to the proceedings questions.

SAM Search Authorization

I authorize my entity's non-sensitive information to be displayed in SAM public search results:

Yes

Entity Types

Business Types

Entity Structure	Entity Type	Organization Factors
Corporate Entity (Not Tax Exempt)	**Business or Organization**	**(blank)**
Profit Structure		
For Profit Organization		

Financial Information

Accepts Credit Card Payments	Debt Subject To Offset
Yes	**No**

EFT Indicator	CAGE Code
0000	**1K3R7**

Points of Contact

Electronic Business

Luke J. Widich, Contracts Director	**Tetra Tech Inc** **661 Andersen Drive Foster Plaza Vii** **Pittsburgh, Pennsylvania 15220** **United States**
Scott Postler, Procurement Specialist	Tetra Tech Inc 661 Andersen Drive Foster Plaza Vii Pittsburgh, Pennsylvania 15220 United States

Government Business

Luke J. Widich, Contracts Director	**Tetra Tech Inc** **661 Andersen Drive Foster Plaza Vii** **Pittsburgh, Pennsylvania 15220** **United States**
Scott Postler, Procurement Specialist	Tetra Tech Inc 661 Andersen Drive Foster Plaza Vii Pittsburgh, Pennsylvania 15220 United States

Past Performance

Rich Ninesteel, Marketing Manager	**Tetra Tech Inc** **661 Andersen Drive Foster Plaza Vii** **Pittsburgh, Pennsylvania 15220** **United States**
Rich Ninesteel, Marketing Manager	Tetra Tech Inc 661 Andersen Drive Foster Plaza Vii Pittsburgh, Pennsylvania 15220 United States

Service Classifications

NAICS Codes

Primary	NAICS Codes	NAICS Title
Yes	**541620**	**Environmental Consulting Services**
	541330	**Engineering Services**
	541360	**Geophysical Surveying And Mapping Services**
	541690	**Other Scientific And Technical Consulting Services**
	541990	**All Other Professional, Scientific, And Technical Services**
	562112	**Hazardous Waste Collection**
	562211	**Hazardous Waste Treatment And Disposal**
	562910	**Remediation Services**
	611699	**All Other Miscellaneous Schools And Instruction**
	712120	**Historical Sites**

Disaster Response

This entity does not appear in the disaster response registry.