



TETRA TECH, INC.
MASTER SERVICES AGREEMENT (MSA)

CONTRACT NO.: 17-042 EFFECTIVE DATE: August 28, 2017

PROJECT: Disaster Debris Monitoring Services TETRA TECH, INC. EIN: 95-4148514

CLIENT: CITY OF LEAGUE CITY, TEXAS

PHYSICAL ADDRESS: 300 West Walker, League City, TX 77573

INVOICING ADDRESS: 300 West Walker, League City, TX 77573

PROJECT CONTACT: _____ TEL: _____ EMAIL: _____

PAYMENT CONTACT: _____ TEL: _____ EMAIL: _____

CONSULTANT: TETRA TECH, INC.

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

TECHNICAL CONTACT: Ralph Natale, Director of Post Disaster Programs TEL: 407-580-8184 EMAIL: ralph.natale@tetrattech.com

CONTRACTUAL CONTACT: Betty Kamara, Contracts Administrator TEL: 407-803-2551 EMAIL: betty.kamara@tetrattech.com

PAYMENT ADDRESS: Tetra Tech, Inc., P.O. Box 911642, Denver, CO 80291-1642

PROJECT DESCRIPTION: To provide Disaster Debris Monitoring and Management Consulting Services on an as needed basis.

TERMS AND CONDITIONS

I. DEFINITIONS AND CONTRACT FORMATION.

- (a) "Client" shall mean the person or entity identified in the Tetra Tech, Inc. "TT" Proposal for whom Services are to be performed.
- (b) "TT" shall mean Tetra Tech, Inc.
- (c) "Task Order" shall mean the client order/work order/purchase order, request, authorization or other notification, and additions or modifications thereto whereby Client indicates its desire that TT furnish Services.
- (d) "TT Proposal" shall mean these terms and conditions and the letter, proposal, quotation, or other notification, including any response to the Client Order, wherein TT offers to furnish Services.
- (e) "Services" shall mean the Services of TT personnel described in the TT Proposal or Client Order and any other Services as may be added to, or performed in connection with, the Contract provided, however, that TT shall have no responsibility as a generator, operator, transporter, disposer or arranger of the transportation and/or disposal of Hazardous Substances as defined in Article 8 below.
- (f) "Contract" shall mean these Terms and Conditions and the TT Proposal, and shall include Exhibits A, A-1, A-2, B, C, DI, and D-2 which are attached hereto and expressly incorporated herein by reference as if fully set forth verbatim. Upon execution by Client or commencement of Services at Client's request, these Terms and Conditions shall constitute a binding Contract and govern exclusively any Services provided.



TETRA TECH, INC.
MASTER SERVICES AGREEMENT (MSA)

2. INTRODUCTION.

Client and TT agree TT will provide professional services related to disaster debris monitoring and management consulting services as described in each of the above described Exhibits which again are expressly incorporated herein by reference. Task orders shall be issued for specific deliverables under this Agreement and shall include a detailed scope, project timeline, and estimated project cost for completion. Prior to commencing work, a written notice to proceed must be issued by Client to TT. The professional services shall be provided subject to the Terms and Conditions which follow.

3. CONTRACT TERM.

This Agreement shall remain in effect until the first of the following shall occur:

- a. Written notice by either party of termination of this Agreement.
- b. Expiration of two (2) years from the date of this Agreement, except that it may be extended up to two (2) one (1) year periods by mutual written agreement of the parties.

4. COMPENSATION.

The fee for services under this Agreement shall either be on a Firm Fixed Price basis or Time and Materials basis where the actual hours of services furnished multiplied by TT's Billing Labor Rates as set forth in Exhibit B, plus all reasonable expenses directly related to the services furnished under this Agreement. TT shall submit invoices for services rendered in accordance with the specific invoicing terms of each Task Order.

Non-labor expenses shall be invoiced as follows: 1) travel expenses including airfare and car rental shall be invoiced at cost, without mark-up; 2) lodging shall be invoiced up to the per diem rate according to the GSA rates established at www.gsa.gov; 3) meals and incidentals shall be invoiced at the GSA per diem rate (no receipts are required); 4) mileage shall be invoiced at the federally published rate; 5) other required non-labor expenses as may be applicable to the project and pre-approved by Client shall be invoiced at cost, without mark-up.

Client will review invoices for acceptance within ten (10) calendar days of the date of the invoice to which Client shall immediately notify TT of any invoice discrepancies. TT and Client will work in good faith to resolve any such discrepancies within ten (10) days after notification. Should a discrepancy result in a partial rejection of any item(s) invoiced, Client shall proceed with partial payment within Net 30 days of the date of the invoice. If Client fails to make payment within thirty (30) days of the date of such invoice, interest compounded at the rate of two percent (2%) per month (retroactive to the first month outstanding) shall be charged and payable by Client on all amounts unpaid and outstanding (less any discrepant amount identified within the ten (10) day review period noted above). Under no circumstances shall payment of TT's invoices be contingent on reimbursement of Client by any third party authority or funding source. Any interest charges due from Client on past due invoices are in addition to amounts otherwise due under this Agreement. If Client fails to make any payment to Contractor as required hereunder, Contractor shall have the right exercisable in TT's sole discretion, in addition to its other rights and remedies, to cease further performance of the Services hereunder and/or initiate collections proceedings without incurring any liability or waiving any rights established hereunder or by law.

Payment shall be made to the following address: Tetra Tech, Inc., P.O. Box 911642, Denver, CO 80291-1642.

- 5. CONFIDENTIALITY, ACCESS TO SITE, USE OF FACILITIES AND INFORMATION.** Client shall provide TT with access to facilities and information conducive to the efficient and accurate provision of Services, including such maps, drawings, records, and site access as are needed for the proper conduct of the Services, and shall indicate the reliability of all information provided. TT will maintain in confidence and return to Client any information designated by Client as confidential. If site visits are included in the Scope of Services, but not field construction or remediation, TT shall visit the project and/or construction site at appropriate intervals to become generally familiar with the progress, quality of work (contractors' work) and if applicable to determine if the work is proceeding in general accordance with the Contract Documents. Visits to the project site and observations made by TT as part of Services during construction under Agreement shall not make TT responsible for, nor relieve the construction contractor(s) of the obligation to conduct comprehensive monitoring of the work sufficient to ensure conformance with the intent of the Contract Documents, and shall not make TT responsible for, nor relieve the construction contractor(s) of the full responsibility for all construction means, methods, techniques, sequences, and procedures necessary for coordinating and completing all portions of the work under the construction contract(s) and for all safety precautions incidental thereto.

6. INSURANCE.

- (a) During the course of performance of the Services, TT will maintain the following insurance coverages:

<u>TYPE OF COVERAGE</u>	<u>AMOUNT OF COVERAGE</u>
Workers' Compensation/Employers Liability	Statutory/\$1,000,000
Commercial General Liability/Excess Liability	\$1,000,000/\$2,000,000
Professional Liability/Contractors Pollution Liability	\$1,000,000
Automobile Public Liability and Property Damage, including coverage for all hired or non-owned automotive equipment used in connection with the insured's operations.	\$1,000,000



TETRA TECH, INC. MASTER SERVICES AGREEMENT (MSA)

- (b) Before beginning any work, TT shall deliver to Client, a Certificate of Insurance evidencing that the above coverages are in effect as well as naming Client as an Additional Insured. An Additional Insured Endorsement must accompany the Certificate of Insurance. Such coverage will not be canceled or materially changed without thirty (30) days written notice.
7. **INDEMNIFICATION.** TT shall indemnify and save harmless Client from claims, actions and judgments arising out of bodily injury, death or damage to property of third parties to the extent caused by the negligence of TT, provided, however, that "Hazardous Substance Claims" as defined in Article 8, below, shall be governed by that Article.
8. **WARRANTY OF SERVICES.** TT warrants that TT and its employees shall, in performing Services hereunder, exercise the degree of skill, care and diligence consistent with customarily accepted good practices and procedures at the time and location and for the type of Services performed. Should TT fail to perform to those standards, it shall (a) without cost to Client, reperform and correct any substandard Services; and (b) reimburse Client for Client's direct damages or otherwise correct faulty construction, to the extent resulting from such substandard Services. Services involving such activities as the prediction of ecological or health impacts, clean-up criteria, extent or degree of contamination or dispersion, air or water movement, geologic and hydrogeologic conditions, extent of appropriate investigation, scheduling, and cost estimating are highly sensitive to changes in regulatory and scientific criteria, methodologies and interpretations thereof and require the balance of diverse, often conflicting, Client business, economic, legal and other priorities. Client acknowledges these conditions and accepts the risk that, although TT may perform to the above standards, the Client's goals or desires may nevertheless not be realized. TT makes no other warranties, express or implied, with respect to its performance under this Contract. TT's liability hereunder, including any for damage to or loss of Client property, shall in no event extend beyond one year after completion of the Services in question or exceed the amount specified in Article 9 below.
9. **HAZARDOUS SUBSTANCE CLAIMS.** (a) In the event that TT's negligence is found, by final judicial determination, to have caused a Hazardous Substance Claim as defined below, TT shall reimburse Client for its costs and liabilities incurred under this Article 8, to the extent caused by TT, in an amount not to exceed that specified in Article 9 below; and (b) "Hazardous Substance Claim" shall mean any and all claims, losses, costs, expenses, judgments, damages, and liabilities of any form or nature including but not limited to any for personal or emotional injury, death or damage to property arising out of or in connection with any actual, threatened or feared release, discharge or exposure to any toxic or hazardous waste, substance, material, or vapor, including without limitation, PCB's, petroleum, hydrocarbons, asbestos, mixed, radioactive or nuclear wastes and any other substance designated as hazardous or toxic under CERCLA, TSCA, RCRA or other statute or regulation ("Hazardous Substances").
10. **TT LIABILITY.** TT's total aggregate liability in connection with or arising out of the Contract or Services, including without limitation any under Articles 6, 7 and 8 above, shall in no event exceed the total amount of compensation paid to TT hereunder.
11. **CONSEQUENTIAL DAMAGES AND OTHER LIABILITIES.** TT and its employees shall in no event be liable for any special, indirect or consequential damages, including specifically but without limitation, any based on loss of profits or revenue, loss of or interference, whether or not by third parties, with full or partial use of any equipment, facility or property, including real property, cost of replacement power, energy or product, delay in or failure to perform or to obtain permits or approvals, cost of capital, loss of goodwill, claims of customers, fines or penalties assessed against client or similar damages. These terms provide allocations of risk and reward consistent with the nature and extent of the Services and to that end include (i) protections against, and limitations on, liability of TT and (ii) specific remedies of Client which shall be its sole and exclusive remedies. The allocations, including without limitation those set forth above and under Articles 7, 8 and 13, shall survive this contract and apply to the fullest extent allowed by law irrespective of whether liability of TT is claimed, or found, to be based in contract, tort or otherwise (including negligence, warranty, indemnity and strict liability) and Client hereby waives all rights of recovery and assumes all risks beyond those explicitly allocated to TT herein.
12. **SITE CONTRACTORS.** For the benefit of Client and TT, Client agrees that it will cause provisions acceptable to TT governing insurance and indemnity to be inserted in each of Client's agreements for remediation or other construction or site services or work related to the Services.
13. **DELAYS.** Neither party shall be considered in default in the performance of its obligations hereunder to the extent that the performance of such obligations is prevented or delayed by any cause which is beyond the reasonable control of the affected party, and the time for performance of either party hereunder shall in such event be extended for a period equal to any time lost as a result thereof, and an equitable adjustment shall be made to TT's compensation.
14. **THIRD PARTY INTERESTS.** This Contract and the Services and Work Product produced hereunder are solely for the benefit of Client and are not intended to be for the benefit, or to be construed as creating rights in favor, of any third party. If Client is not the ultimate beneficiary of the Services or TT's work product is used in such a way as to create or induce any reliance by any third party, Client represents and warrants (i) that it shall bind its clients and/or such third parties to limitations on and protections against liability "protective provisions" commensurate with those afforded TT hereunder and that such protective provisions will, in fact, inure to the benefit of TT, and/or (ii) that Client has the power to act on behalf of its clients and/or such third parties and does hereby bind such parties to these protective provisions.
15. **CHANGES AND TERMINATION.** This Contract shall not be modified except by written agreement signed by both parties. Client shall have the right to make changes within the general scope of Services upon execution of a mutually accepted change order. Client shall also have the right to terminate this Contract prior to completion of the Services, after reasonable notice to TT in writing, in which event Client shall pay TT all amounts due TT hereunder up to the effective date of termination, plus TT's reasonable costs incurred after such date in terminating the Services. In the event that Client alleges breach on behalf of TT, Client shall afford TT in 30 days written notice to submit a reasonably acceptable plan to cure any alleged deficiency prior to termination. Recognizing that termination prior to completion may involve risks and exposures both as to cost of work and third party claims, Client shall in such event indemnify, protect and defend TT from claims



TETRA TECH, INC.
MASTER SERVICES AGREEMENT (MSA)

arising out of any incomplete aspect of the Services. Both parties have the right to terminate this Contract for convenience with thirty (30) day notice to the other party.

16. **GOVERNING LAW, PRECEDENCE AND DIVISIBILITY.** Unless specified otherwise in Client orders, this Agreement shall be governed by the laws of the State of Texas excluding choice of law rules, which direct application of the laws of another jurisdiction. The provisions of the TT Proposal and these Terms and Conditions shall govern exclusively any Services furnished by TT and shall prevail over and render void any inconsistent or conflicting provision of the Client Order. If any term, condition, provision or portion of this Contract is declared void or unenforceable, or limited in its application or effect, such event shall not affect any other provision or portion hereof. All other provisions and unaffected portions thereof shall remain fully enforceable and an adjustment in the compensation or other provisions shall be made with the purpose of equitably affecting the intent of the Contract to the maximum extent allowed by law.
17. **ENTIRE AGREEMENT.** This Contract contains the entire agreement between the parties as to the Services rendered hereunder. All previous or contemporaneous agreements, representations, warranties, promises, and conditions relating to the subject matter of this Contract are superseded by this Contract.

TETRA TECH, INC. -- Accepted by:

CLIENT -- Accepted by:

CONTRACT NO. 17-042 FOR DISASTER
DEBRIS MONITORING SERVICES

CONTRACT OR PROJECT NAME

CITY OF LEAGUE CITY, TEXAS

CLIENT

JONATHAN BURGIEL

BY TT (PRINT NAME)

BY (PRINT NAME)

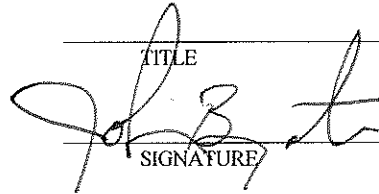
VICE PRESIDENT/OPERATIONS MANAGER

TITLE

TITLE

 08/30/2017

SIGNATURE /DATE

 8.30.17

SIGNATURE /DATE

During the performance of this contract, TETRA TECH, INC. (hereinafter “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 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 advising the said labor union or workers' representatives of the contractor's commitments under this section, 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 rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the administering 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 the said 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 or federally assisted construction 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 portion of the sentence immediately preceding paragraph (1) and the provisions of paragraphs (1) through (8) 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 the administering agency may direct as a means of enforcing such provisions, including sanctions for noncompliance:

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

The applicant further agrees that it will be bound by the above equal opportunity clause with respect to its own employment practices when it participates in federally assisted construction work: *Provided*, That if the applicant so participating is a State or local government, the above equal opportunity clause is not applicable to any agency, instrumentality or subdivision of such government which does not participate in work on or under the contract.

The applicant agrees that it will assist and cooperate actively with the administering agency and the Secretary of Labor in obtaining the compliance of contractors and subcontractors with the equal opportunity clause and the rules, regulations, and relevant orders of the Secretary of Labor, that it will furnish the administering agency and the Secretary of Labor such information as they may require for the supervision of such compliance, and that it will otherwise assist the administering agency in the discharge of the agency's primary responsibility for securing compliance.

The applicant further agrees that it will refrain from entering into any contract or contract modification subject to Executive Order 11246 of September 24, 1965, with a contractor debarred from, or who has not demonstrated eligibility for, Government contracts and federally assisted construction contracts pursuant to the Executive Order and will carry out such sanctions and penalties for violation of the equal opportunity clause as may be imposed upon contractors and subcontractors by the administering agency or the Secretary of Labor pursuant to Part II, Subpart D of the Executive Order. In addition, the applicant agrees that if it fails or refuses to comply with these undertakings, the administering agency may take any or all of the following actions: Cancel, terminate, or suspend in whole or in part this grant (contract, loan, insurance, guarantee); refrain from extending any further assistance to the applicant under the program with respect to which the failure or refund occurred until satisfactory assurance of future compliance has been received from such applicant; and refer the case to the Department of Justice for appropriate legal proceedings.

(2) The implementing regulations at 41 C.F.R. Part 60 (Office of Federal Contract Compliance Programs, Equal Employment Opportunity, Department of Labor), are expressly incorporated herein by reference as if set forth verbatim.

(c)Subcontracts. Each nonexempt prime contractor or subcontractor shall include the equal opportunity clause in each of its nonexempt subcontracts.



ADDENDUM NO. ONE (1)

June 13, 2017

Proposals for: **17-042 RFP Debris Monitoring Service**

The following clarifications, amendments, deletions, additions, revision and/or modifications are made a part of the contract documents and change the original documents only in the manner and to the extent hereinafter stated and shall be incorporated in the contract documents. Provisions of this addendum shall take precedence over requirements of the original contract documents and all **PROPOSERS ARE REQUESTED TO ACKNOWLEDGE SAID PROVISIONS IN THEIR SUBMISSION.**

Addendum as follows:

Below are questions that were received, and the answers to these questions are in bold.

1. The BID SECURITY requirement (shown on page 22 of the RFP) is 5% of the amount of the total bid check or bond accompany the proposal submittal less it be determined to be non-responsive. Would the City kindly waive the BID SECURITY requirement as this is a \$0 stand-by contract?

Yes. Bid Security is not required or a requirement.

End of Addendum

If you have any questions, please contact Kylie Box at kylie.box@leaguecitytx.gov.

Kylie Box
Buyer



CITY OF LEAGUE CITY, TEXAS

ADDENDUM NO. TWO (2)

June 29, 2017

Proposals for: **RFP 17-042 Debris Monitoring Service**

The following clarifications, amendments, deletions, additions, revision and/or modifications are made a part of the contract documents and change the original documents only in the manner and to the extent hereinafter stated and shall be incorporated in the contract documents.

Provisions of this addendum shall take precedence over requirements of the original contract documents and all **PROPOSERS ARE REQUESTED TO ACKNOWLEDGE SAID PROVISIONS IN THEIR SUBMISSION.**

Addendum as follows:

Below are questions that were received, and the answers to these questions are in bold.

1. Is the City going to provide a required list of positions for the price/fee schedule?

See attached, "RFP 17-042 Debris Monitoring Service – Hourly Rate Sheet".

2. Can the City clarify the proposal order format – on the RFP it goes from Tab A, Tab B, Tab 6, Tab C, Tab D, Tab E?

On page 8, Proposal Order Format shall be as follows:

5.4 TAB A – Qualifications

5.5 TAB B – Experience

5.6 TAB C – Project Methodology

5.7 TAB D – Pricing and Fees

5.8 TAB E – References

5.9 TAB F – Conflict of Interest

End of Addendum

If you have any questions, please contact Kylie Box at kylie.box@leaguecitytx.gov.

Kylie Box
Buyer



RFP 17-042 Debris Monitoring Service - Hourly Rate Sheet
City of League City

POSITIONS	HOURLY RATES
Senior Program Manager	
Project Manager	
Operations Manager	
Field Manager	
Field Supervisor	
Field Monitor	
Debris Site / Tower Monitor	
Load Ticket Data Entry Clerk	
Collection Monitor	
Citizen Drop-Off Monitor	
Billing / Invoice Manger	
Billing / Invoice Analyst	
Project Inspector	
Project Assistant	
Field Coordinator (Crew Monitor)	
Senior Project Inspector	
Waste Management Specialist	
Senior Public Assistance – Grant Management Consultant	
Principal In Charge	
Public Assistant Consultant	
Public Assistant Consultant Aide	
Project Coordinator	
Debris Site Security	
Safety Manager	
Data Manager	
Data Support Personnel	
Marine Debris Monitor	
Schedules / Expenditures (Logistics)	
Environmental Specialist	
Project Inspector	
Residential Monitor	
Automated Ticket Specialist	
Aerial Photographer	
FEMA Specialist	
Administration Assistant	
Call Center Staff	
Senior Technical Specialist	
Fire / HAZMAT Subject Matter Expert / Trainer	
OTHER REQUIRED POSITIONS: Proposer may include other positions, with hourly rates, as needed.	



**REQUEST FOR PROPOSALS (RFP)
DEBRIS MONITORING SERVICE
#17-042**

The City of League City is now accepting sealed proposals for a Compensation and Classification Study.

DEADLINE: Sealed proposal submittals must be received by **2:00 p.m., CST, Tuesday, July 11, 2017**. (The clock located at the receptionist desk in the lobby of City Hall will be the official time.) Applicant names of all proposals received will be read aloud on this date at the City of League City, City Hall Executive Conference Room, 300 W. Walker Street, League City, TX 77573. Proposals received after the deadline stated herein will not be opened and shall be considered void and unacceptable.

MARK ENVELOPE: #17-042 – DEBRIS MONITORING SERVICE

DELIVERY ADDRESS: Please submit one (1) marked original and five (5) exact duplicate signed copies of your complete proposal along with one (1) electronic copy (CD or flash drive) properly labeled and clearly marked with the RFP number and description to:

City of League City
Purchasing Department
300 West Walker
League City, TX 77573
Monday – Thursday: 8:00 am to 6:00 pm
Friday: 8:00 am to 12:00 pm

Bids sent via courier must be sealed in a separate envelope inside of the mailer.

POINT OF CONTACT: All inquiries regarding this RFP must be made, in writing, to Kylie Box, Buyer, at kylie.box@leaguecitytx.gov. The City shall not be responsible for any verbal communication between any employee of the City and any potential firm. Only written requirements and qualifications will be considered.

The City of League City reserves the right to reject any and all proposals, to waive irregularities, and to accept the proposal deemed the most advantageous to the City.

Deadline for submission of questions is Tuesday, June 27, 2017 2:00 p.m.

Release Date: June 5, 2017



City of League City
Request for Proposal #17-042
Debris Monitoring Service

1. Introduction:

The City of League City is soliciting proposals from interested and qualified firms for services for disaster management, recovery and consulting services to support the City with the oversight and management of their debris recovery contractors on an “as needed” basis for either declared or non-declared events. It is the intent of the City to select a single firm to accomplish all services outlined in this RFP.

1.1 Clarification and Interpretation of RFP

1.1.1 The words “must” or “will” or “shall” in this RFP indicate mandatory requirements. Taking exception to any mandatory requirement will be grounds for rejection of the proposal.

1.1.2 The City desires to avoid any misunderstanding where it is assumed that a feature is included in the proposal and turns out to be an optional, extra cost feature. As such, any question answered with an indication of compliance will be considered included at no additional cost. Any service that is referred to in the body of this response (does not pertain to attachments and brochures) will be considered included in the basic offer.

1.2 Purpose

The purpose of this RFP is to provide minimum requirements, solicit proposals and gain adequate information from which the City may evaluate the proposer’s products and services as they compare to other providers and as they pertain to the needs of the City’s organization as defined in this document.

2. Background Information:

2.1 Location

The City serves an area of approximately 55 square miles with a population of approximately 100,000 and is located in Galveston County, 23 miles southeast of Houston, and the same distance northwest of the city of Galveston.

2.2 City Infrastructure

The City is organized into forty (40) departments and provides a full range of municipal services to its citizens including fire (volunteer department) and police protection, emergency medical services, animal control and municipal court facilities, water and sanitary sewer utilities, the construction of streets, drainage and other infrastructure, recreational activities, swimming pools and athletic fields, public library and other facilities used for various cultural and civic activities. The City utilizes the services of a contractor in order to provide solid waste collection services and residential recycling.

During a state of emergency, the Mayor assumes the leadership of the City. He is assisted by the Emergency Management Coordinator in addition to all City department directors.

2.3 Debris Management Services

The City currently has agreements in place with Ceres Environmental and Crowder Gulf to provide debris management services. In the event of an emergency or disaster, the successful firm will be responsible for monitoring these companies in their debris removal efforts. The successful firm will need to be able to ensure that the debris management provider adheres to protocols that will enhance the City's ability to meet all Federal Emergency Management Agency (FEMA) Public Assistance policies and regulations.

3. Scope of Work:

3.1 General

The City recognizes the vulnerability of its citizens to damage, injury and loss of life and property resulting from disasters. Such disasters require 24/7 responses from the City's emergency responders, City employees, various elected officials and appointed officials. Removing debris in a timely and efficient manner is crucial to the disaster recovery effort for not only the citizens, but the City employees and Emergency Responders.

The Debris Monitoring contract will encompass the entire City of League City. The City's disaster recovery planning includes considerations for removing and processing the volumes and types of debris and wastes expected to be generated by a major disaster such as a hurricane, tornado, flooding event, or other natural, technological, or human-caused disaster that encompasses the procedures for disposing of that material.

3.2 Scope

3.2.1 Debris monitoring documentation is critical to verify that debris operations meet all FEMA Public Assistance policies and guidelines, costs are reasonable, quantification of the debris is accurate, and the tracking of the debris to its final location is recorded and in compliance with all regulatory requirements. Proposer may be utilized to monitor and document non-declared events as well.

3.2.2 The City requires all proposers to understand FEMA Public Assistance policies and guidelines, including eligibility issues and specifically those relating to debris. The City will select a firm to monitor its debris removal operations and document eligible debris quantities and reasonable expenses.

3.2.3 Proposers must be able to handle the monitoring of debris removal for all types and sizes of disasters. This can include a localized event where there is one type of debris, a significant event that includes a larger square footage of the City and mixed debris, or could be a Catastrophic Event where the entire City is affected and there is multiple types of debris that will need to be removed.

3.2.4 Monitoring debris removal work involves constant observation of crews to ensure that workers are performing eligible work in accordance with FEMA Public Assistance guidelines and all applicable Federal, State and local regulations. Failure to properly monitor and document debris removal operations may jeopardize FEMA Public Assistance. The City reserves the right to withhold payment for improperly performed services pending a review of pertinent documentation and actions.

3.2.5 Proposers will need to be capable of providing a wide range of services including, but not limited to the following:

- Damage assessment
- Training
- Emergency planning
- Infrastructure restoration
- Communication with FEMA, FHWA (Federal Highway Administration), State of Texas and other State and Federal Agencies
- Coordinate with State Insurance representatives
- Reimbursement services

3.2.6 Proposers must be prepared to deploy debris monitoring within twenty-four (24) hours from the notice to proceed. When additional debris monitoring is needed to meet the requirements of the monitoring contract, proposer shall be prepared to increase the number of debris monitors for the City.

3.4 Services

3.4.1 The awarded firm shall be responsible for monitoring debris and waste removal and disposal operations performed by the Debris Management provider relative to:

- City streets, roads and right-of-way's
- Streets, roads and right-of-way's of all municipalities and communities, incorporated and unincorporated, and rural areas within the City, unless otherwise directed by the City of League City
- Canals, waterways, and right-of-way's of all municipalities and communities, incorporated and unincorporated, and rural areas within the City, unless otherwise directed by the City of League City
- Public property and facilities
- Any other public site as may be directed by the City of League City
- Private property when necessary to protect the public (life safety) or to facilitate completion of required work, provided that entry onto private property is specifically authorized by the City of League City Office of Emergency Management

3.4.2 Debris monitoring considerations and responsibilities may vary depending on the type of debris being removed and may include:

- Vegetative debris
- Hazardous waste
- Household hazardous waste
- Electronic waste
- White goods
- Soil, mud, and sand
- Vehicles and vessels

- Animal carcasses or other fleshy organic matter
- Infectious waste
- Chemical, biological, radiological and nuclear-contaminated debris
- Construction and demolition (C&D) debris

3.4.3 Awarded firm shall be responsible for maintaining records, developing worksheets and other required documentation which will be required by FEMA, FHWA, and any other applicable agency for disaster recovery efforts. This shall include, but is not limited to, receiving a copy of all invoices from the disposal facility, supported by scale and/or load tickets issued by the disposal facility, and proof of payment by the Debris Management firm to the disposal facility.

3.4.4 Awarded firm shall be responsible for verifying that only eligible debris is removed from initial sites (as described in 3.4.1), then transported to Temporary Debris Staging and Reduction (TDSRS) sites where all debris is to be appropriately segregated and processed, reduced and then loaded appropriately (and not artificially – e.g. debris is wetted, fluffed or not compacted), and finally transported to the disposal facility for weighting and receiving. Verification that hazardous wastes have not been mixed into loads will be required. Awarded firm shall be responsible for ensuring each load can be claimed based on established criteria, and mark load tickets ineligible if they do not meet FEMA Public Assistance policies and guidelines. Awarded firm shall also possess the ability to estimate in cubic yards (CY) debris to be removed for the disposal facility, and assist in measuring the debris in all debris hauling trucks and trailers, if needed.

3.4.5 Awarded firm shall be responsible for overseeing all operations at the TDSRS sites, making sure that all local, state, and federal regulations are followed. All safety precautions are to be taken into account and followed as well.

4. Contract Terms and Conditions:

4.1 General

This contract is for a two (2) year initial term, with two (2) one-year renewal terms available upon the mutual agreement of the parties. All rates/fees shall be fixed for the contract term, and for any subsequent renewal terms – there will be no provision for price adjustments at any renewal, as the annually renewable agreement is meant as an option for either party to exit the contractual obligation at its discretion.

Either party to the contract may exercise its option not to renew the contract by providing written notice of its intent not to renew no later than 60 calendar days prior to the expiration date of the currently expiring term. Contractual provisions within any proposal requiring a longer advance notice of intent not to renew other than the 60 days stated herein, and/or financial penalties for non-renewal will not be acceptable to the City. Additionally, any “evergreen” renewal provisions contained in vendor-provided agreements to their proposal, beyond the four (4) year maximum term stated herein, will not be acceptable to the City. Refusal by a proposer to amend any of the prohibited provisions described in this section may be grounds for rejection of the subject proposal.

4.2 Indemnification

It is understood that any resulting contract executed will contain the following language:

It is further agreed that the firm (separately and collectively the "Indemnatee") shall indemnify, hold harmless, and defend the City, its officers, agents, and employees from and against any and all claims, losses, damages, causes of action, suits and liability of every kind, including all expenses of litigation, court costs, and attorney's fees, for injury to or death of any person or for damage to any property arising out of or in connection with the work done by the firm under this contract. Such indemnity shall apply regardless of whether the claims, losses, damages, causes of action, suits or liability arise in whole or in part from the negligence of the City, any other party indemnified hereunder, the Firm, or any third party.

4.3 Release

It is understood that any resulting contract executed will contain the following language:

The firm assumes full responsibility for the work to be performed hereunder and hereby releases, relinquishes, and discharges the City, its officers, agents, and employees from all claims, demands, and causes of action of every kind and character, including the cost of defense thereof, for any injury to or death of any person and any loss of or damage to any property that is caused by, alleged to be caused by, arising out of, or in connection with the firm's work to be performed hereunder.

This release shall apply regardless of whether said claims, demands, and causes of action are covered in whole or in part by insurance and regardless of whether such injury, death, loss, or damage was caused in whole or in part by insurance and regardless of whether such injury, death, loss or damage was caused in whole or in part by the negligence of the City, any other party released hereunder, the firm, or any third party.

5. Instructions to Bidders:

5.1 General

This section outlines specific instructions for proposal submissions. **Proposers not adhering to these instructions shall be disqualified without further consideration.**

At the public opening, there will be no disclosure of contents to competing firms, and all proposals will be kept confidential during the negotiation process. Except for trade secrets and confidential information which the firm identifies as proprietary, all proposals will be open for public inspection after the contract award. All proposals become the property of the City of League City.

The City of League City requires comprehensive responses to every section within this RFP. Conciseness and clarity of content are emphasized and encouraged. Vague and general proposals will be considered non-responsive and will result in disqualifications. To facilitate the review of the responses, Firms shall follow the described proposal format. The intent of the proposal format requirements is to expedite review and evaluation. It is not the intent to constrain Vendors with regard to content, but to assure that the specific requirements set forth in this RFP are addressed in a uniform manner amenable to review and evaluation. Failure to arrange the proposal as requested may result in the disqualification of the proposal. It is requested that proposals be limited to no more than 50 pages, excluding resumes

and sample documents. Proposals shall have 1" margins and be single-sided, single spaced, using Times New Roman 12 point font. All pages of the proposals must be numbered and the proposal must contain an organized, paginated table of contents corresponding to the sections and pages of the proposal.

5.2 Project Timeline

The vendor/contractor selection process will follow the timeline shown below. Estimated key milestone dates for the completion of the project are also included:

Request for Proposals Issued: Monday, June 5, 2017

Deadline for Submitting Questions: Tuesday, June 27, 2017 by 2:00 p.m.

Proposal Submission Deadline: Tuesday, July 11, 2017 by 2:00 p.m.

Selection Process: July 11-14, 2017

Presentations from finalists (if necessary): July 17/18, 2017

Planned Award of Contract: July 2017

5.3 Statement of Compliance

By submission of a response to this RFP, proposer acknowledges full compliance with required specifications and all terms and conditions as detailed in the RFP.

5.4 **TAB A –** Qualifications

- 5.4.1 Briefly introduce your firm, providing a summary of the administration, organization and staffing of your firm.
- 5.4.2 Provide a list of all management, supervision, labor, transportation and equipment necessary to provide debris monitoring services.
- 5.4.3 Identify the project manager and each individual who will work as part of this engagement. Include resumes for each person to be assigned. Include any professional designations and affiliations, certifications and licenses, etc.

5.5 **TAB B –** Experience

- 5.5.1 Number of debris monitoring contracts your firm currently has within a 250 mile radius of the City of League City.
- 5.5.2 Include your firm's success rate, percentage wise, with adhering to FEMA Public Assistance regulations.
- 5.5.3 Describe the experience of the firm in the last sixty (60) months in performing monitoring services in similar size and scope.

Summary of past relevant experience should include the following for each response:

- a. Type of disaster – hurricane, tropical storm, tornado, etc.
- b. Type of jurisdiction – city, county, district, any combination
- c. Collection of debris monitoring assignments
- d. DMS debris monitoring assignments

e. Final disposal debris monitoring functions

5.6 **TAB 6 – Project Methodology**

- 5.6.1 Provide a work plan that describes the firm’s methodology, including a detailed project plan, based on prior experience with debris monitoring.
- 5.6.2 The strategies and methods by which the work is performed must be included in the proposal and detailed sufficiently to allow the City to determine compatibility of the approach to the City’s overall goals.
- 5.6.3 Work plan shall clearly distinguish the firm’s duties and responsibilities and those of the City. Absence of this distinction shall mean the firm is assuming full responsibility for all tasks.

5.7 **TAB C – Pricing and Fees**

- 5.7.1 The proposals shall provide a breakdown of all potential costs (i.e., applicable hourly rates, training, travel and per diem, etc.).
- 5.7.2 The proposal shall include a fee schedule for additional services required for successful implementation not already specifically identified in this RFP or optional services that may be of benefit to the City.

5.8 **TAB D – References**

- 5.8.1 Include names and telephone numbers of persons whom the City of League City can contact for references regarding the firm’s past performance on similar projects.

5.9 **TAB E – Conflict of Interest**

- 5.9.1 Provide a completed copy of the Conflict of Interest Questionnaire (Form CIQ).

The Texas legislature recently enacted House Bill 914 which added Chapter 176 to the Texas Local Government Code. Chapter 176 mandates the public disclosure of certain information concerning persons doing business or seeking to do business with the City of League City, including affiliations and business and financial relationships such persons may have with City of League City officers. The form can be located at the Texas Ethics Commission website:

By doing business or seeking to do business with the City of League City including submitting a response to this RFP, you acknowledge that you have been notified of the requirements of Chapter 176 of the Texas Local Government Code and you are representing that you are in compliance with them.

Any information provided by the City of League City is for information purposes only. If you have concerns about whether Chapter 176 of the Texas Local Government Code applies to you or the manner in which you must comply, you should consult an attorney.

The following are the current City Council and City employees who are anticipated to either recommend or approve award of the proposal.

City Council:	Mayor	Pat Hallisey
	Councilmember	Dan Becker
	Councilmember	Hank Dugie
	Councilmember	Larry Millican
	Mayor Pro Tem	Todd Kinsey
	Councilmember	Greg Gripon
	Councilmember	Keith Gross
	Councilmember	Nick Long
City Staff:	City Manager	John Baumgartner
	Assistant City Manager	Rebecca Underhill
	Emergency Mgmt Coordinator	Ryan Edghill
	Fire Chief	Gary Warren
	Police Chief	Michael Kramm
	Asst. Chief of Police	Gary Ratliff
	Director of Public Works	Gabriel Menendez
	Public Works Manager	Jody Hooks
	Streets / Stormwater Super.	Cecil Bowery
	Purchasing Manager	Shawna Tubbs

6. Proposal Evaluation Process

All proposals will be screened by an evaluation committee. The evaluation committee shall screen and rate all of the responses that are submitted. Evaluation ratings will be on a 100 point scale and those proposers selected for a short list may be invited to attend an interview, at the proposers own expense. Any invitation for an oral presentation will be solely for the purpose of clarifying proposals received from each qualifying proposer, and will not represent any decision on the part of the evaluation committee as to the selection of a successful proposer.

The City's process is as follows:

- 6.1 City staff shall recommend an evaluation committee which will be used to evaluate all proposals. The City will evaluate all proposals based on the following criteria:
 - 6.1.1 **Qualifications – 25 pts**
 - 6.1.2 **Experience – 25 pts**
 - 6.1.3 **Project Methodology – 20 pts**
 - 6.1.4 **Pricing and Fees– 20 pts**
 - 6.1.5 **References – 10 pts**
- 6.2 Once proposals are scored, the evaluation team will select finalists and decide whether interviews should be conducted. After interviews are performed, if needed, the evaluation team may request the finalists to submit a Best and Final Offer (BAFO).
- 6.3 Should negotiations be unsuccessful, the City shall enter into negotiations with the next, highest ranked Vendor. The process shall continue until an agreement is reached with a qualified Vendor.



6.4 This RFP does not commit the City to pay for any direct and/or indirect costs incurred in the preparation and presentation of a response. All finalist(s) shall pay their own costs incurred in preparing for, traveling to and attending interviews.

6.5 The City reserves the right to negotiate the final fee prior to recommending any Vendor for a contract.

The City reserves the right to use all pertinent information (also learned from sources other than disclosed in the RFP process) that might affect the City's judgement as to the appropriateness of an award to the best evaluated proposer. This information may be appended to the proposal evaluation process results.



PROPOSER CERTIFICATION AND ADDENDA ACKNOWLEDGEMENT

By signature affixed, the proposer certifies that neither the proposer nor the firm, corporation, partnership, or institution represented by the proposer, or anyone acting for such firm, corporation, or institution has violated the anti-trust laws of this State, codified in Section 15.01, et seq., Texas Business and Commerce Code, or the Federal antitrust laws, nor communicated directly or indirectly the bid made to any competitor or any other person engaged in such line of business.

Proposer has examined the specifications and has fully informed themselves as to all terms and conditions. Any discrepancies or omissions from the specifications or other documents have been clarified with City representatives and noted on the bid submitted.

Proposer guarantees product offered will meet or exceed specifications identified in this RFP.

Proposer must initial next to each addendum received in order to verify receipt:

Addendum #1 _____ Addendum #2 _____ Addendum #3 _____
Addendum #4 _____ Addendum #5 _____ Addendum #6 _____

Proposer Must Fill in and Sign:

NAME OF FIRM/COMPANY: _____
REPRESENTATIVE's NAME: _____
REPRESENTATIVE's TITLE: _____
MAILING ADDRESS: _____
CITY, STATE, ZIP: _____
PHONE & FAX NUMBERS: _____
E-MAIL ADDRESS: _____
AUTHORIZED SIGNATURE: _____
DATE: _____



Awarded vendor will be required to execute this agreement prior to commencement of service. This is provided for INFORMATIONAL PURPOSES ONLY. Any exceptions to this agreement shall be included in proposal response.

PROFESSIONAL SERVICES AGREEMENT

This SERVICES AGREEMENT ("Agreement") is entered into by and between the undersigned, _____ ("Contractor"), located at _____ and City of League City ("City"), a City in the State of Texas, located at 300 W. Walker, League City, Texas 77573.

Services: Contractor will perform the designated services and/or products as set forth in _____, which is attached and incorporated for all purposes.

Term and Termination: This agreement shall begin on _____, and shall terminate on _____. This agreement may be terminated by either party upon thirty (30) days written notice or immediately by CITY in the event of breach by Contractor. CITY may terminate this Agreement with or without cause upon thirty (30) days prior written notice to the Contractor. Upon such termination, CITY shall pay Contractor, at the rate set out in _____, for services satisfactorily performed up through the date of termination. Notwithstanding any provision in this Agreement to the contrary, CITY will not be required to pay or reimburse Contractor for any services performed or for expenses incurred by Contractor after the date of the termination notice that could have been avoided or mitigated by Contractor.

Compensation: Contractor shall be paid for the services and reimbursable travel expenses, if any, as set forth in _____, attached and incorporated for all purposes. CITY shall pay Contractor in accordance with the Texas Government Code 2251. Contractor must submit invoices for all services, which invoices must include dates of service and details of services provided. Payment for delivery of services rendered shall not be unreasonably withheld or delayed. If CITY disapproves any amount submitted for payment by Contractor, CITY shall give Contractor specific reasons for disapproval in writing. Upon resolution of any disputed charges, Contractor shall submit an amended invoice covering any remaining charges to CITY.

Relationship of the Parties: Contractor is an independent contractor and is not an employee, partner, joint venture, or agent of CITY. Contractor understands and agrees that he/she will not be entitled to any benefits generally available to City of League City employees. Contractor shall be responsible for all expenses necessary to carry out the services under this agreement, and shall not be reimbursed by CITY for such expenses except as otherwise provided in this agreement.

Travel: Contractor ☐ shall ☐ shall not be reimbursed for travel conducted in the pursuit of this contract and appropriate per diem as outlined in _____ attached hereto and incorporated for all purposes. Documentation of travel costs (original receipts) shall be provided by the contractor for all travel related expenses except mileage on personal automobile. Original receipts are required for travel expenses related to hotel, rental car, commercial airlines, parking, taxi, etc.

Intellectual Property: This agreement shall be an agreement for services and the parties intend and consider any work created as a result of this agreement, including any and all documentation, images, products or results, to be a work for hire under federal copyright law. Ownership of the work shall belong to and remain the exclusive property of CITY. The work may be edited at any time within the City's discretion. If the work would not be



considered a work-for-hire under applicable law, Contractor hereby assigns, transfers, and conveys any and all rights, title and interest to City of League City, including without limitation all copyrights, patents, rights of

reproduction, rights to ownership, and right to secure registrations, renewals, reissues and extensions thereof. As the sole copyright holder of the work, CITY maintains and asserts the rights to use, reproduce, make derivative works from, and/or edit the Work in any form of medium, expression or technology now known or hereafter developed, at any time within the City's discretion. Contractor shall not sell, disclose or obtain any other compensation for the services provided herein. If the work is one to which the provisions of 17 U.S.C. § 106A apply, the Contractor hereby waives and appoints CITY to assert on the Contractor's behalf the Contractor's moral rights or any equivalent rights regarding the form or extent of any alteration to the work (including, without limitation, removal or destruction) or the making of any derivative works based on the Work, including, without limitation, photographs, drawings or other visual reproductions of the work, in any medium, for City purposes.

Confidentiality: During the course of the work and/or services to be provided under this agreement, Contractor may come in contact with confidential information of CITY. Contractor agrees to treat as confidential the information or knowledge that becomes known to Contractor during performance of this agreement and not to use, copy, or disclose such information to any third party unless authorized in writing by CITY. This provision does not restrict the disclosure of any information that is required to be disclosed under applicable law. Contractor shall promptly notify CITY of any misuse or unauthorized disclosure of its confidential information and upon expiration of this agreement shall return to CITY all confidential information in Contractor's possession or control. Contractor shall further comply with all City information security policies that may apply and shall not make any press releases, public statements or advertisement referring to the services provided under this agreement or the engagement of Contractor without the prior written approval of CITY.

Warranties and Representations: Contractor warrants and agrees that Contractor shall perform the Services and conduct all operations in conformity with all applicable federal, state, and local laws, rules, regulations, and ordinances. For any Service performed on premises owned or controlled by CITY, Contractor warrants and agrees that Contractor will perform the Services in compliance with all city Rules, including but not limited to, prohibitions related to tobacco use, alcohol, and other drugs.

Licenses/Certifications: Contractor agrees to obtain, at its own cost, any and all approvals, licenses, filings, registrations and permits required by federal, state or local laws, regulations or ordinances, required for the performance of the Services.

Performance/Qualifications: Contractor agrees and represents that Contractor has the personnel, experience, and knowledge necessary to qualify Contractor for the particular duties to be performed under this Agreement. Contractor warrants that all services performed under this Agreement shall be performed consistent with generally prevailing professional or industry standards.

Conflict of Interest: Contractor warrants, represents, and agrees that Contractor presently has no interest and shall not acquire any interest, direct or indirect, that would conflict in any manner or degree with Contractor's performance of the Services hereunder. Contractor further warrants and affirms that no relationship or affiliation exists between Contractor and CITY that could be construed as a conflict of interest with regard to this Agreement.

Insurance: For the entire term of the Agreement ("Term"), Contractor shall maintain Comprehensive General Liability insurance coverage of \$1,000,000 per occurrence or medical malpractice insurance (whichever applies). If, during the Term, Contractor will enter City property, Contractor shall also maintain the following insurance: (i) Worker's Compensation coverage with statutory limits for the State of Texas, including Employers Liability coverage of \$500,000 per accident; (ii) Commercial Automobile Liability coverage of \$1,000,000 Combined



Single Limit; (iii) for engineers and architects only: Professional Liability coverage of \$5,000,000 per occurrence; and (iv) for builders only: Builder's Risk coverage in the amount of the construction cost, including protection against named windstorm and flood. All policies must contain a waiver of subrogation against City.

Comprehensive General Liability and Commercial Automobile Liability policies must name CITY as Additional Insured. Contractor shall pay all insurance deductibles and deductibles must not exceed \$10,000 unless approved in advance by City. Contractor shall provide City Certificates of Insurance evidencing these insurance requirements prior to the start of work.

Indemnification: Contractor shall indemnify and hold harmless City, and each of its directors, officers, agents and employees from and against all claims, actions, suits, demands, proceedings, costs, damages and liabilities, including without limitation attorneys' fees and reasonable litigation costs, arising out of, connected with, or resulting from any acts or omissions of Contractor or any agent, employee, subcontractor, or supplier of Contractor in the execution or performance of this contract, to the extent the claim arises from negligence, willful act, breach of contract or violation of law.

Force Majeure: Neither CITY nor Contractor shall be liable for any delay in the performance of this Agreement, nor for any other breach, nor for any loss or damage arising from uncontrollable forces such as fire, theft, storm, war, or any other force majeure that could not have been reasonably avoided by exercise of due diligence.

Notices: Any notice given under this contract by either party to the other may be affected either by personal delivery in writing or by mail, registered or certified postage prepaid with return receipt requested. Mailed notices shall be addressed to the addresses of the parties as they appear in the contract. Notices delivered personally shall be deemed communicated at the time of actual receipt. Mailed notice shall be deemed communicated three (3) days after mailing.

Texas Family Code Child Support Certification: Pursuant to Section 231.006, *Texas Family Code*, Contractor certifies that it is not ineligible to receive the award of or payments under the Agreement and acknowledges that the Agreement may be terminated and payment may be withheld if this certification is inaccurate.

State Auditor: Contractor understands that acceptance of funds under the Agreement constitutes acceptance of the authority of the Texas State Auditor's Office, or any successor agency (collectively, "Auditor"), to conduct an audit or investigation in connection with those funds. Contractor agrees to cooperate with the Auditor in the conduct of the audit or investigation, including without limitation providing all records requested. Contractor will include this provision in all contracts with permitted subcontractors.

Jurisdiction: Any disputes under this agreement shall be brought in a court of competent jurisdiction in Galveston, Texas and governed by Texas law.

Alternative Dispute Resolution: To the extent that Chapter 2260, Texas Government Code, is applicable to this Contract and is not preempted by other applicable law, the dispute resolution process provided for in Chapter 2260 and the related rules adopted by the Texas Attorney General Pursuant to Chapter 2260, shall be used by CITY and the Contractor to attempt to resolve any claim for breach of contract made by Contractor that cannot be resolved in the ordinary course of business. The Director of Finance of CITY shall examine Contractor's claim and any counterclaim and negotiate with Contractor in an effort to resolve such claims. The parties hereto specifically agree that (i) neither the occurrence of an event giving rise to a breach of contract claim nor the pendency of a claim constitute grounds for the suspension of performance by Contractor, (ii) neither the issuance of this Contract by CITY nor any other conduct, action or inaction of any representative of CITY relating to this contract constitutes or is intended to constitute a waiver of CITY's or the state's sovereign immunity to suit; and (iii) CITY has not waived its right to seek redress in the courts.



Entire Agreement: This agreement and the attached Audit Engagement Letter, dated June 25, 2014, pages 1-11, contain the entire agreement between the parties and supersedes any and all prior agreements, arrangements, and understanding, oral or written between the parties relating to this agreement. This agreement may not be modified except by mutual written agreement of the parties executed subsequent to this agreement.

Authority: Contractor warrants and represents that Contractor has full power and authority to enter into and perform this agreement and to make the grant of rights contained herein. The person signing on behalf of CITY represents that he/she has authority to sign this agreement on behalf of CITY.

City of League City

By: _____

By: _____

Name: _____

Name: **John Baumgartner**

Title: _____

Title: **City Manager**

Date: _____

Date: _____

Note: Modification of this Form requires approval by the Office of the City Attorney.

SAMPLE

EXHIBIT "A"
SERVICES

1. Services:

Contractor will serve as:

2. Deliverables:

Contractor will deliver the following (Attach additional sheet, if necessary):

1.

2.

3.

4.

5.

6.

7.

8.

9.



EXHIBIT "B"
COMPENSATION

1. Compensation (Select one item):

☐ Contractor shall be paid a fee of _____ per person for a not to exceed amount of _____ for services.

OR

☐ Compensation shall be based on a **daily rate** of _____ dollars (\$_____) for _____ (____) days between _____ and _____, _____ (year).

OR

☐ Compensation shall be based on an **hourly rate** of _____ dollars (\$_____) for a total amount of _____ (____) Service hours.

Total compensation paid by CITY to Contractor for Services shall not exceed _____ dollars (\$_____), which amount does not include applicable sales tax or reimbursable expenses (below), without the express written consent of CITY.

Compensation will be made upon completion of services and in accordance with the Texas Prompt Payment Act.

2. Reimbursable Travel Expenses:

Reimbursable Travel Expenses under this Agreement and charged to CITY will not exceed _____ dollars (\$_____):

Reimbursable Expenses included in this agreement are listed as follows:



TERMS AND CONDITIONS:

MULTIPLE CONTRACTORS: The City reserves the right to make a single award or multiple awards, whichever are in the best interest of the City.

DOCUMENTATION: Respondent shall provide with this response all documentation required by this RFP. Failure to provide this information may result in rejection of proposal.

TAX EXEMPTION: The City is not liable to respondent for any federal, state, or local taxes for which the City is not liable by law, including state and local sales and use taxes (Section 151.309 and Title 3, Texas Tax Code) and federal excise tax (Subtitle D of the Internal Revenue Code). Accordingly, those taxes may not be added to any item. The City's Tax Exemption Certificate will be furnished by the City on request of the respondent.

DISCUSSIONS: Formal or informal communication involving an oral or written exchange of information for the primary purpose of obtaining information essential for determining the acceptability of a proposal may occur. Any discussions of this nature are only intended to clarify the City's understanding of submissions.

BEST AND FINAL OFFER (BAFO): In a competitive negotiation, the final proposal submitted after negotiations or discussions are completed that contains the proposer's most favorable terms for price, services and products to be delivered. Sometimes referred to as BAFO and utilized during the Request for Proposal method of procurement.

EVALUATION PROCESS: It is the City's intent to enter into a contract with the Vendor that offers the "best value" for the desired project. After receipt of the proposals, City of League City will evaluate the proposals based upon the evaluation criteria set forth in the Request for Proposal. The City has, at its sole discretion, the ability to negotiate with the respondent determined to be the highest ranked after completion of the evaluations.

The City may elect to conduct discussions with the respondents deemed to be in the competitive range for award. If discussions are held, respondents identified in the competitive range will be given equal opportunity to discuss and submit revisions to their proposals. Revisions of proposals are accomplished by formally requesting Best and Final Offers (BAFOs) at the conclusion of discussions with a deadline set for receipt of BAFOs and including instructions as to exactly what should be submitted in response to the BAFO. After consideration of all BAFO responses, the City will select the top ranked respondent, and will enter into contract negotiations.

COSTS TO SUBMIT: The City of League City will not be liable for any costs incurred by any respondent in preparation of a submittal in response to this request, in conduct of a presentation, or any other activities related to the response of this RFP.

INSURANCE REQUIREMENTS: Contractor shall maintain, at his sole cost, at all times while performing work hereunder, the insurance and bond coverage set forth below with companies satisfactory to the Owner with full policy limits applying, but not less than stated. A certificate evidencing the required insurance and specifically citing the indemnification provision set forth in the Agreement shall be delivered to the Owner within fifteen (15) days that Notice to Proceed has been accepted by Contractor.

- (1) Workman's Compensation Insurance as required by laws and regulations applicable to and covering employees of Contract engaged in the performance of the work under this agreement with a limit of not less than \$1,000,000.00;
- (2) Employers Liability Insurance protecting contractor against common law liability, in the absence of statutory liability, for employee bodily injury arising out of the master-servant relationship with a limit of not less than \$100,000.00.
- (3) Comprehensive General Liability Insurance including products/completed operation with limits of liability of not less than: Bodily Injury \$1,000,000.00 per each person, \$1,000,000.00 per each occurrence/\$2,000,000.00 aggregate; Property Damage \$1,000,000.00 per each occurrence;
- (4) Excess Liability Insurance Comprehensive general Liability, Comprehensive Automobile Liability and coverage's afforded by the policies above, with the minimum limits of \$5,000,000.00 excess of specified limits;
- (5) Performance Bond and Payment Bond, furnished as guaranty of the faithful performance of the work and for the protection of the claimants for labor and material, each in the full amount of the Contract price, executed by a surety company or surety companies authorized to execute surety bonds under and in accordance with the laws of the State of Texas.

ADDENDA: Any interpretations, corrections or changes to this Request for Proposal and specifications will be made by addenda. Sole issuing authority of addenda shall be vested in the City of League City Purchasing Office. Any changes to specifications will be made in writing and posted on the City's website at: <http://leaguecity.com/bids.aspx>. Respondents shall acknowledge receipt of all addenda on the Bidder Certification/Addenda Acknowledgement form found within this document.

LATE PROPOSALS: Proposals received by the City after the submission deadline will be considered void and unacceptable. City of League City is not responsible for lateness or non-delivery of mail, carrier, etc. The date/time stamp at the Receptionist's desk at City of League City, City Hall shall be the official time of receipt.

ALTERING PROPOSALS: Proposals cannot be altered or amended after submission deadline. Any alterations or erasures made before opening time and must be initialed by the signer of the proposal, guaranteeing authenticity.

AWARD: The City has the right to award a contract upon the conditions, terms and specifications contained in a proposal submitted to the City for a period of up to ninety (90) days following the date specified for the opening of proposals.

Because the City is a governmental entity that must follow State and Federal laws and has an obligation to protect its taxpayers, the City requires that certain terms be included in the contract that result from this solicitation. Your response to this solicitation is an offer to contract with the City based on the terms, conditions, and specifications contained in this solicitation. If any of the mandatory contract terms are unacceptable to you, please do not respond to this solicitation.

CONFLICTING PROVISIONS: The contract consists only of the City prepared contract and any additional City or respondent contract documents incorporated by reference as a part of the contract. If a conflict or inconsistency exists between the City prepared contract and a document incorporated by reference, the City prepared contract controls. If a conflict or inconsistency exists between an additional contract document incorporated by reference, the City's additional contract document takes precedence over the respondent's additional contract document.

PAYMENT PROVISIONS: The City's payments under the contract, including the time of payment and the payment of interest on overdue amounts, are subject to Chapter 2251, Texas Government Code.

LIABILITY AND INDEMNITY: Any provision of the contract is void and unenforceable if it: (1) limits or releases either party from liability that would exist by law in the absence of the provision; (2) creates liability for either party that would not exist by law in the absence of the provision; or (3) waives or limits either party's rights, defenses, remedies, or immunities that would exist by law in the absence of the provision. (Section 5, Article XI, Texas Constitution)

CONFIDENTIALITY: Any provision in the contract that attempts to prevent the City's disclosure of information subject to public disclosure under federal or Texas law or regulation, or court or administrative decision or ruling, is invalid. (Chapter 552, Texas Government Code)

CONTRACTUAL LIMITATIONS PERIOD: Any provision of the contract that establishes a limitations period that does not run against the City by law or that is shorter than two (2) years is void. (Sections 16.061 and 16.070, Texas Civil Practice and Remedies Code)

GOVERNING LAW AND VENUE: Texas law governs this contract and any lawsuit on this contract must be filed in a court that has jurisdiction in Galveston County, Texas.

CONFLICT OF INTEREST: No public official shall have interest in this contract accept in accordance with Vernon's Texas Codes Annotated, Local Government Code Title 5, Subtitle C, Chapter 171.

ETHICS: The respondent shall not offer or accept gifts or anything of value or enter into any business arrangement with any employee, official or agent of City of League City. More than one proposal on any one contract from a respondent or individual under different names shall be grounds for rejection of all proposals in which the respondent or individual has an interest. One or all proposals will be rejected if there is any reason to believe that collusion exists between respondents.

Respondents must make every effort to comply Chapter 176 of the Texas Local Government Code. Chapter 176 mandates the public disclosure of certain information concerning persons doing business or seeking to do business with the City of League City, including affiliations and business and financial relationships such persons may have with City of League City officers.

By doing business or seeking to do business with the City of League City, including submitting a response to this Request for Proposals, you acknowledge that you have been notified of the requirements of Chapter 176 of the Texas Local Government Code and you are representing that you are in compliance with them.

Conflict of Interest Questionnaire found within this document must be completed and turned in with each proposal.



PURCHASE ORDER: City of League City may generate a purchase order to the successful respondent. The purchase order number must appear on all invoices, packing lists and all related correspondence. City of League City will not be responsible for any orders placed and/or delivered without a valid purchase order number.

DELIVERY: Any delivery and freight charges (FOB City of League City designated location) are to be included in the proposal price.

INVOICES: submitted for payment shall be addressed to: City of League City, Accounts Payable, 300 W. Walker St., League City, TX 77573, accountspayable@leaguecity.com and shall reference the City of League City approved purchase order number. Periodic payments will be made within thirty (30) days of invoice date or satisfactory delivery of the product or service, whichever is later, provided that all other requirements as detailed in the contract have been fulfilled.

WARRANTY: Successful respondent shall warrant that all items or services shall conform to the proposed specifications and all warranties as stated in the Uniform Commercial Code and be free from all defects in material, workmanship and title.

PATENTS/COPYRIGHTS: The successful respondent agrees to protect City of League City from claims involving infringements of patents and/or copyrights.

TERMINATION OF CONTRACT: The City of League City reserves the right to terminate the contract immediately in the event the successful respondent:

1. Fails to complete project in a timely manner agreed upon by both parties;
2. Otherwise fails to perform in accordance with this contract;
3. Becomes insolvent and/or files for protection under bankruptcy laws.

Such termination is in addition to and not in lieu of any other remedies that City of League City may have in law or equity. Respondent, in submitting this proposal, agrees that City of League City shall not be liable to prosecution for damages in the event that the City declares the respondent in default.

TERMINATION FOR CONVENIENCE: The contract may be terminated, without penalty, by either party by providing thirty (30) days' written notice to the other party.

NOTICE: Any notice provided by this RFP or required by law to be given to the successful respondent by City of League City shall be deemed to have been given and received on the next business day after such written notice has been deposited in the U. S. mail in League City, Texas, by Registered or Certified Mail with sufficient postage affixed thereto, addressed to the successful respondent at the address so provided; provided this shall not prevent the giving of actual notice in any other manner.

ASSIGNMENT: The successful respondent shall not sell, assign, transfer or convey this contract, in whole or in part, without the prior written consent of City of League City.

INTERLOCAL AGREEMENT: Chapter 791, Texas Government Code and Chapter 271, Subchapter F, Texas Local Government Code, authorizes cities to enter into Interlocal purchasing agreements to take advantage of potential cost

savings resulting from cooperative purchasing efforts. Successful contractor(s) agree(s) to extend prices and terms to all entities, who have entered into or will enter into joint Purchasing Interlocal Cooperation Agreements with the City of League City.

CONTINGENCIES: Before submitting their bid, Proposers should make a careful examination of the scope of work and of the difficulties involved in its proper execution. Proposers should include in their proposal all costs they deem proper and sufficient to cover all contingencies essential to the completion of the compensation and classification study, notwithstanding that every item or contingency is not specifically mentioned herein.

CERTIFICATE OF INTERESTED PARTIES: Applies to all contracts that must be approved by the City Council. In accordance with House Bill 1295, for certain contracts entered into on or after January 1, 2016, the successful proposer must submit a ***Certificate of Interested Parties (Form 1295)*** at the time the signed contract is submitted to the City and/or before the City can pay any related invoice. This applies to any contract of any amount that must be approved by the City Council. Form 1295 must be filed electronically with the Texas Ethics Commission using the online filing application located at:

<https://www.ethics.state.tx.us/File/>

PERFORMANCE AND PAYMENT BOND REQUIREMENTS: Per Government Code Chapter 2253. Bonds. If the contract exceeds fifty thousand dollars (\$50,000) a payment bond is required. If the contract exceeds one hundred thousand dollars (\$100,000) a performance bond is required. Performance and Payment Bonds shall be furnished on prescribed forms in the amount of one hundred percent (100%) of the contract price with corporate surety duly authorized to do business in the State of Texas. Attorneys-in-fact who sign Bonds must file with each bond a certified and effective date copy of their Power of Attorney.

BID SECURITY: Bids shall be accompanied by a bid guarantee of not less than five percent (5%) of the amount of the total bid which shall be a Certified Check or Cashier's check payable without recourse to the City of League City, TX, or a bid bond with corporate surety authorized to conduct business in Texas. Said security shall be submitted with the understanding that it shall guarantee that the Bidder will not withdraw his bid within sixty (60) days after the date of the opening of the bids; that if a bid is accepted, the bidder will enter into a formal Contract with the OWNER, furnish bonds and insurance as may be required and commence work at the specified time, and that in the event of the withdrawal of said bid within said period, or the failure to enter into said Contract, furnish said bonds and insurance and commence work within the time specified, the Bidder shall be liable to the OWNER for the difference between the amount specified in the bid in the amount for which the OWNER may otherwise procure the required work. Checks of all except the three lowest responsible Bidders will be returned when award is made; when the Contract is executed, the checks of the two remaining unsuccessful bidders will be returned; that of the successful Bidder be returned when formal Contract, bonds and insurance are approved, and work has commenced within the time specified.

Tab C: Project Methodology

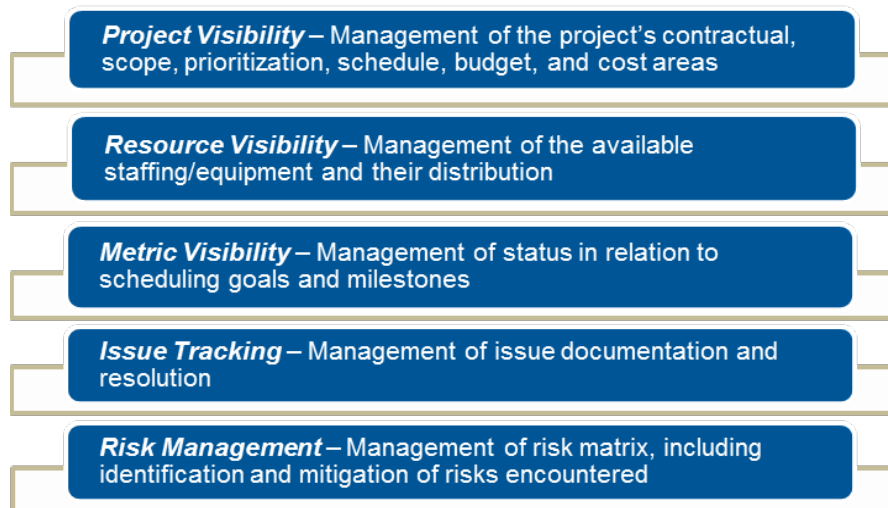
TAB C – PROJECT METHODOLOGY

Tetra Tech implements a best practices approach to disaster debris monitoring when planning for and responding to debris-generating events. Tetra Tech has carefully reviewed the scope of work requested in League City’s (City) request for proposal (RFP) and can assure the City that we have the extensive experience, understanding, and knowledge of the City 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. Our project team will continue to dedicate themselves to the City’s needs throughout the year, not just during times of activation.

PROJECT MANAGEMENT METHODOLOGY

Our methodology of project management governs both the planning and execution of all project work. The strategy, structure, and staffing requirements for the project organization are based on client expectations and the desired outcome. Tetra Tech’s project management methodology enables our team to achieve success despite the unpredictable nature of disasters. Our methodology addresses the project management areas shown in the exhibit below.

Exhibit C-1: Project Management Areas



These management areas are administered using the established project management procedures and protocols we have developed and refined over the years and numerous disaster activations. Our interactions with our clients are based on best practices that balance the need for direction of operational priority, issue resolution, and relevant information with considerations for the time availability of the client.

Procedures and Protocols

Each phase of Tetra Tech project management has documented procedures that govern the execution to provide *scalable, consistent, high quality results*. We use a systematic approach

Tab C: Project Methodology

with frequent in-process quality checks to execute our project processes. Our general project approach includes tasks in each of the phases: initiation, mobilization, execution, and closeout.

- **Initiation (Pre-Event)**
 - **Annual coordination** – Conduct annual trainings and meetings to plan and test execution protocols and identify potential risks/mitigation opportunities.
 - **Contract review** – Review contracts for understanding of contractual requirements and possible cost savings.
 - **Communication systems checks** – Verify that communication systems function as designed and reporting needs are understood.
- **Mobilization (Immediately Prior to and Following Event)**
 - **Scope, tasking, and budget** – Determine services required, performance metrics, schedule, and budget constraints.
 - **Deployment and resource requirements** – Develop work plan and safety plans. Update risk matrix for work plan specifics.
 - **Staging of equipment and resources** – Coordinate movement of required support equipment/supplies and setup of communication and information systems.
- **Execution (Post-Event)**
 - **On-boarding and training staff** – Conduct suitability for work checks and provide targeted training program based on work and safety plans.
 - **Monitoring** – Supervise field operations, quality assurance/quality control (QA/QC) in-process checks, prioritization of resource management, and project reporting.
 - **Communication** – Conduct status meetings and communicate project metrics and other pertinent information.
 - **Issue tracking/resolution** – Conduct issue identification, staff communication, and resolution tracking.
- **Closeout (Post-Event)**
 - **Documentation deliverable** – Produce and deliver required documentation to support auditing.
 - **Demobilization** – Manage reduction in staff, post-use maintenance, and movement of equipment and supplies.
 - **Audit support** – Provide continued availability of information systems to support closeout information requests.

OPERATIONAL SCHEDULE

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.

Tab C: Project Methodology

Exhibit C-2: Disaster Debris-Generating Event Operational Plan

Time	Task	Deliverables/Milestones
Preparedness		
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
H-96	Review capabilities and resources	• Contact the City and initiate daily conference call • 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.
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 temporary debris staging and reduction site (TDSRS) locations and follow up with the Texas Department of Environmental Quality (TCEQ) on permitting procedures • Estimate equipment requirements and TDSRS capacity to haul and stage debris • Prepare automated debris management system (ADMS) technology for mobilization
H-48	Monitor storm track and continue preparations	• Conduct regular meetings with City staff as requested • Confirm staging location and begin mobilization of resources • 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
H-24	Prepare final reports	• Save all critical documents and files to the network drive, USB drive, and laptop hard drive • Certify emergency road clearance equipment (in coordination with the City's debris hauler) • Determine emergency road clearance priorities

Tab C: Project Methodology

Time	Task	Deliverables/Milestones
H-0	ARRIVAL OF NOTICE EVENT/INITIATE RESPONSE TO NO-NOTICE EVENT	
Response		
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 • Begin establishing ADMS infrastructure • Begin recruiting and training monitors, project coordinators, and data staff • Initiate opening of TDSRS locations • Follow up with TCEQ on debris permits (if required) • Work with the City to establish public information protocols to respond to concerns and comments
H +48	Emergency push/ damage assessment	• 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
Recovery		
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

Tab C: Project Methodology

Time	Task	Deliverables/Milestones
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 FEMA Region 6, Texas Division of Emergency Management (TDEM), 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 Public Assistance (PA) work plan • Conclude/review preliminary damage assessments • Gather documentation for project worksheet (PW) development • Identify opportunities for mitigation • Conduct site visits
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

TECHNICAL WORK PLAN

Time and Materials

The emergency push period begins immediately following an event. Tetra Tech will work with the debris removal contractors, in coordination with City crews, to first clear the blocked roadways for emergency vehicle passage to critical facilities. Tetra Tech is prepared to assist during the push period by providing the following services:

- Documenting blocked roads that require immediate clearance

Tab C: Project Methodology

- Administering the sign-in and sign-out of labor and equipment to track time and materials (T&M) charges
- Helping staff maintain maps or databases to track road clearance progress and other essential tasks, as requested
- Maintaining documentation for reimbursement of emergency push work

On-Boarding/Hiring Approach

Immediately following the impact of a known event, Tetra Tech will establish Human Resources (HR) hiring centers in the field throughout the region in the affected areas. The hiring center provides efficient hiring and training processes that meet the stringent Tetra Tech field operation requirements and any specific requirements of our clients. The hiring center is designed to be quickly mobilized, transported, and set up to allow near immediate response for field staffing needs. The hiring center is typically staffed by three trained HR representatives and can process hiring of hundreds of staff per day. The hiring center can be quickly scaled to meet the most demanding needs for staff. The hiring center advertises locally and reaches out to local workforce centers to utilize persons seeking employment in the community.

Vehicle Certification

Tetra Tech has a proven vehicle certification procedure that complies with FEMA guidelines to maximize reimbursement for our clients. Tetra Tech will certify all trucks used in an activation via the mobile application included in our ADMS technology. Benefits of using the mobile truck certification application include **electronic volume calculations**, instant upload to the RecoveryTrac™ database to allow a QA/QC check to immediately verify the truck certification is calculated correctly, and automated photo matching of truck and driver photographs to the truck. The truck certification application allows us to complete truck certifications in **30 percent less time than with a paper-based system**.

Our disaster debris vehicle certification procedure includes the following:

- Automated truck certification form, which includes the latest FEMA guidelines on truck certification documentation and volume calculations and a bar code for automated ticket scanning
- Special vehicle notations on the truck certification form and vehicle placard, which inform tower monitors of sideboards, tailgates, or other modifications, thus discouraging debris removal contractors from fraudulently altering vehicles after certification
- Photographs of vehicles, vehicle cavities, and drivers

Exhibit C-3: Truck Audit Report

Contractor: ASHBRITT
Sub-Contractor: PAUL BUNYAN
Truck No.: 700153
Driver: PAUL BUNYAN
Vehicle Type: SELF-LOADING TRUCK
Status: ACTIVE
Cert Date: 02/26/2014 2:52 PM
Vehicle Tag: PVT 2195 (OH)
Primary Box (L x W x H): 264x101x115 = 2969460.0 Cu Inches (+)
Type: Box (L x W x H): 64x101x80 = 746592.0 Cu Inches (+)
Type: Box (L x W x H): 76x101x36 = 278336.0 Cu Inches (+)
Total Volume: 3392388.0 Cu Inches (46.656) = 72.71 Cu Yds

Driver-Placard View, Side View, Back-Interior View

RecoveryTrac 73 700153

ROW - Disposal - b210002
Complete Load - Verify Truck
Verify the truck information. If the truck information is missing, enter the Truck number, driver and capacity.
Truck #: 99992
Driver Name: Paul Frank
Capacity: 43
Cancel Scan Barcode Next

Tab C: Project Methodology

- Periodic spot checks and recertification of trucks to identify trucks altered after initial certification
- Visual inspections of motor vehicle compliance with support from a City staff member. This can be done at the time of inspection or through our QC in real-time from an office environment.

Monitoring the Removal of Debris

Tetra Tech deploys loading site monitors to monitor the activities of each debris removal crew. Loading site monitors will document the initial step when tracking debris from collection to disposal. RecoveryTrac™ load tickets document where and when debris is collected along with other required information. Tetra Tech loading site monitors will also mark where every load of debris is collected using the RecoveryTrac™ waypoint system. This information can be used by multiple entities (the City, municipalities that may fall under the City's program, debris hauler, etc.) to verify completeness and maximize project schedule.

The bullets below highlight various aspects of Tetra Tech's debris removal monitoring program.

- **Operations.** Field collection monitors report to a staging location prior to the field operations beginning for a briefing to be given by the project manager or field supervisors and the distribution of safety gear (for example, caution lights or safety vests), map books, and ADMS handheld units/debris tickets.
- **Deployment.** A field monitor is assigned to one loading unit.
- **Field Supervision.** Responsibilities of the field supervisor include training, QA/QC of work being performed, verifying load ticket accuracy, and responding to field monitor and debris contractor issues in the field.
- **Responsibilities.** Field monitors will verify the proper loading of debris into the debris removal contractor's certified loading container. Monitors will document that contractors and their subcontractors adhere to local, state and federal regulations and that they are working safely and efficiently. Field monitors often notice inconsistencies with debris removal procedures and submit them to their supervisors. If a field monitor feels there is justifiable need to stop operations, the monitor is instructed to refrain from issuing a ticket until the debris hauler supervisor and a Tetra Tech supervisor can be called in to determine the appropriate action.
- **Work Scheduling.** Tetra Tech will coordinate with the debris removal contractor's project manager to estimate the number of field monitors that will be required 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. so that the appropriate number of field monitors is dispatched.
- **Daily Closeout.** At the close of operations each day, all collection and disposal monitors will report to the staging area to clock out and turn in their ADMS handheld units.
- **Contractor Completion.** Tetra Tech will assist in completing the project efficiently and within the time lines set forth in the RFP. There are many aspects of debris removal that are outside of the monitoring firm's control but will still need to be managed. Tetra Tech will assist with managing these goals, including the following:
 - The ability of a debris contractor to respond with sufficient equipment will affect the proposed schedule. Tetra Tech will provide burn rate analysis to verify the proper

Tab C: Project Methodology

equipment is being provided. This will be adjusted as more accurate debris estimates are available.

- Invoices by the contractor need to be produced in a timely manner so that Tetra Tech can reconcile in a timely manner. Tetra Tech will work to make the contractors aware of an appropriate time frame for invoicing and will communicate with the City if deadlines are not being met.
- Deadlines for collecting debris are set to correspond with the work schedule that is based on estimated work to be completed. As damage estimates become more accurate (as is typical throughout the process), Tetra Tech will work with officials to adjust the timeline appropriately to reflect the changing estimates.

Temporary Debris Storage and Reduction Site Monitoring

Temporary debris storage and reduction site (TDSRS) locations are approved areas where debris contractors can truck eligible debris so it can be further separated or processed before being hauled to a final disposal facility. Tetra Tech can assist the City in obtaining necessary permits or approval of designated TDSRS monitoring as requested by the City. Debris is quantified by volumetric load calls. Towers are set up, and ingress and egress patterns are established. Each site will be restricted to a maximum capacity that will need to be monitored. Tetra Tech will provide a minimum of two monitors per site, which may increase or decrease based on need. The Tetra Tech monitors will be prepared to work a 12–14 hour shift, 7 days per week. Construction and demolition debris may be directly hauled to a final disposal facility. Specific documentation kept by TDSRS monitors includes the following:

- **Load Ticket.** The load ticket is used to document debris removal.
- **Disposal Monitor Log.** The disposal monitor log is used as backup documentation (and serves as a fail-safe if any documentation is missing).
- **Scale Manifest Tickets.** If the debris hauling contract payment method is weight-based, tickets generated by the existing scales at the City's TDSRS will be digitized and cataloged by Tetra Tech.
- **Incident Report.** The incident report is used to document anything out of the ordinary while monitoring at the TDSRS, including property damage, arguments, unsafe practices, and personal injury.
- **Photographic Documentation.** Tetra Tech disposal supervisors will photograph a TDSRS frequently in order to create a visual timeline of the site.
- **QA/QC of Field Tickets.** TDSRS monitors must review and correct errors made by loading site monitors in the field.

Due to the critical nature of load calls and the impact they can have on a project, Tetra Tech has developed a thorough Disposal Monitor Training Program that will be reviewed by every disposal site monitor for consistency in load calls. After a load call has been made, the disposal site monitor will issue the truck driver a printed Tetra Tech ADMS ticket.

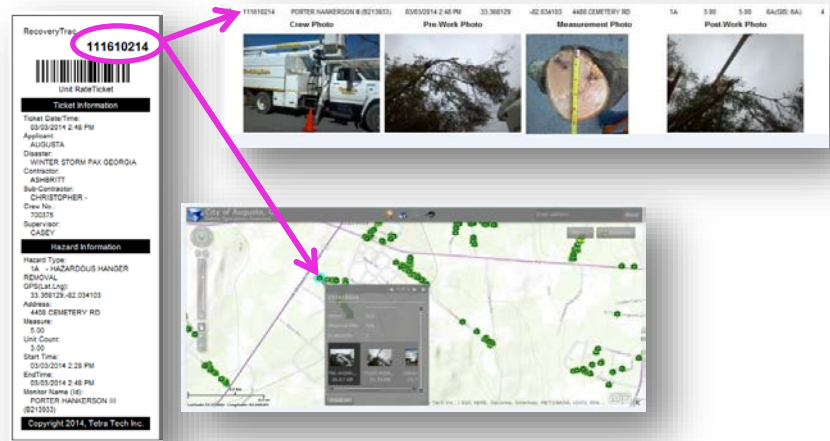
Tab C: Project Methodology

Hazardous Tree Removal

Established FEMA guidance 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 can utilize RecoveryTrac™ ADMS technology to document all hazardous tree and hanger removal operations. Additionally, Tetra Tech 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 District's contractual agreement with the contractor.

Exhibit C-4: Real-Time Ticket Report



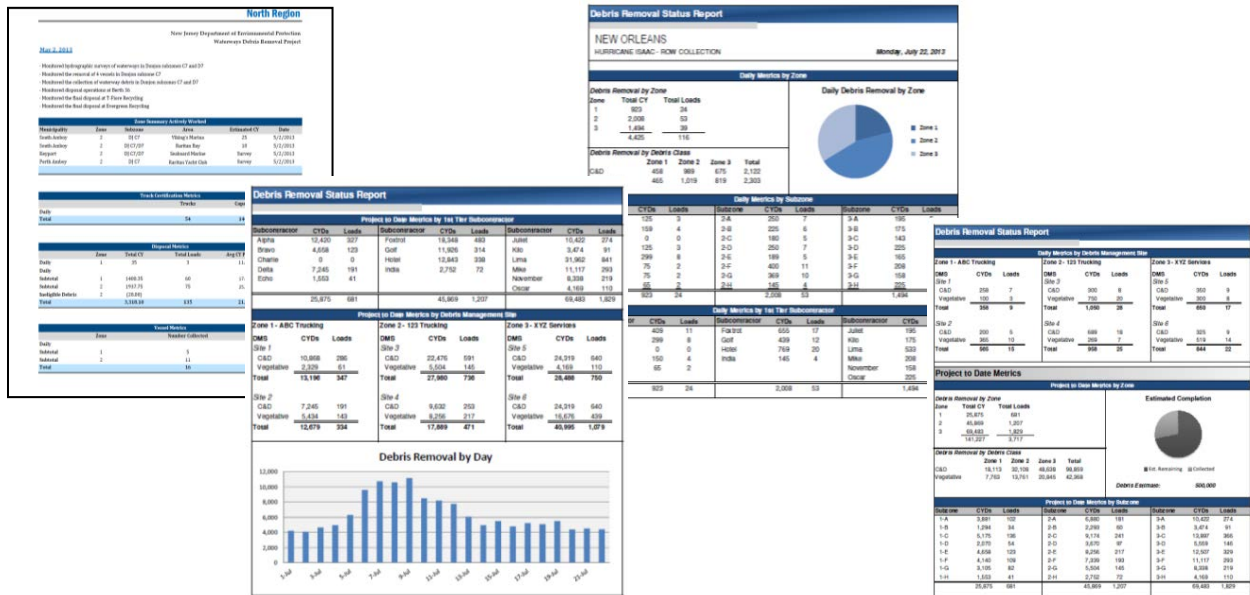
Daily Reporting Metrics

Tetra Tech has a suite of reports that are automated from RecoveryTrac™ and available in real-time via PC, tablet, or even smart phone. Our daily reporting metrics include but are not limited to the following:

- Daily operations cost accounting
- Debris contractor metrics and operations time by truck
- Daily load tickets and cumulative volumes
- Daily reporting of ongoing work and completed areas of debris removal activities
- Fiscal reports, including:
 - Cost of monitoring operations (weekly or monthly)
 - Hauling cost data (weekly or monthly)

Tab C: Project Methodology

Exhibit C-5: Sample Custom Reports Developed



Another key feature of the Tetra Tech ADMS technology is that it allows field monitors to report incidents and provide supporting photographs in real-time. These reports are then provided in real-time geospatially or exported into Excel sheets daily and are available to the City, local governments, and the debris contractor. As monitors complete incident reports in the field, the information and supporting photographs are uploaded to the reporting server.

Depending on the type of incident, priority e-mails may be sent out by the reporting server to City representatives, Tetra Tech 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 identifying unresolved contractor damages before the completion of the program.

Tab C: Project Methodology

Exhibit C-6: Incident Reporting Tool

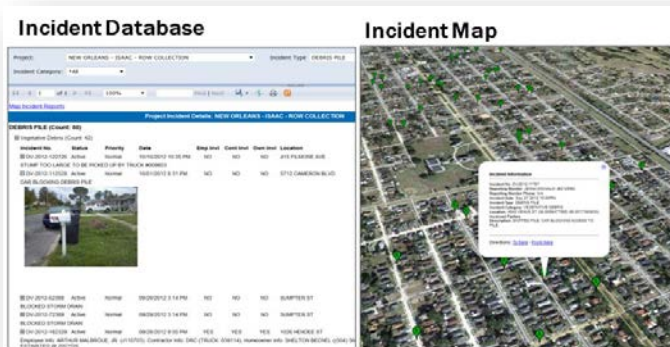
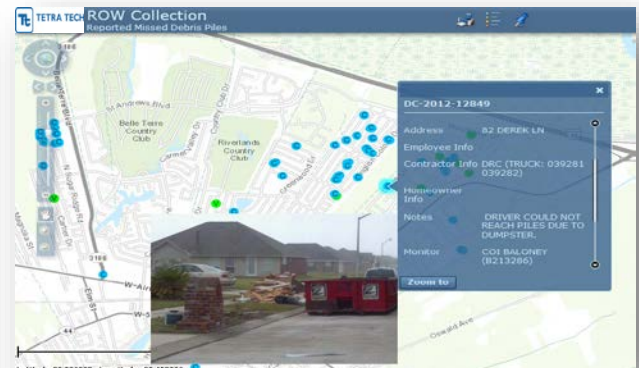


Exhibit C-7: Missed Piles Tracking



Project Manager's Daily Report

In addition to the standard daily reports, Tetra Tech's project management team will also provide a daily project manager's report. The daily project manager's report will be submitted to the City debris manager or their authorized representative daily. The project manager's report will include the following:

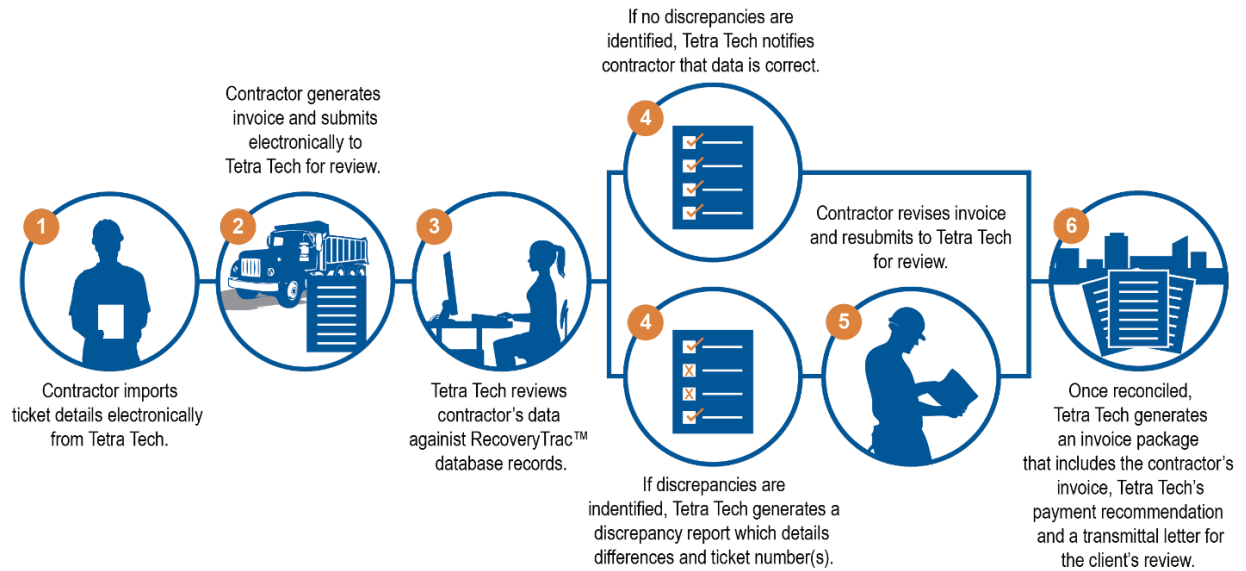
- Volumes of debris category collected
- Debris monitor metrics
- Maps depicting geographic areas where debris has been removed
- Tetra Tech's overall progress in completing task orders and estimated completion date
- Coordination issues (if any) with the contractor
- Damage claims or incident reports

Contractor Reconciliation

To expedite contractor invoice reconciliation efforts, Tetra Tech requires copies of all primary debris hauler contracts with the City. After reviewing the contracts, Tetra Tech will set up the RecoveryTrac™ database to generate transactions for tickets issued to each debris contractor. Tetra Tech will then meet with each primary debris contractor to review the debris contractor reports that will be generated automatically through RecoveryTrac™. The debris contractor reports will provide each contractor with sufficient data to reconcile with their subcontractors as well as generate invoices for payment by the City. Several QA and QC checks will be conducted on data before it is provided to the contractor. The application of RecoveryTrac™ Mobile significantly reduces the amount of time needed for a contractor to generate an invoice and for the subsequent invoice reconciliation with Tetra Tech. The step-by-step process for contractor invoice reconciliation in a RecoveryTrac™ project is outlined below.

Tab C: Project Methodology

Exhibit C-8: Contractor Invoice Reconciliation Process



Project Closeout

Upon project completion, Tetra Tech will prepare both physical records as well as RecoveryTrac™ database digital documentation for submittal to the City. Physical documentation such as load tickets, truck certificates, and field logs are organized and packaged in a manner conducive to easy retrieval. In addition to the physical documentation, Tetra Tech provides a final data export of the RecoveryTrac™ database, which serves to hasten any forthcoming auditing efforts. The records extracted from the database contain a digital copy of the ticket given to the contractor and the corresponding supporting photographic and/or supplemental documentation, truck certificate images and corresponding photographic documentation, and digital copies of all invoice payment recommendation packages that have been issued for the project. The ticket line item data is conveniently hyperlinked so that a simple click will yield the desired images. The RecoveryTrac™ final export data may be provided either via DVD or external hard drive.

The Project Closeout Checklist form includes sections for:

- Client Information:** Client Name, Project Name, Program, All Programs.
- Personnel:** Tetra Tech Project Manager, Tetra Tech Project Manager, Tetra Tech Project Manager, Tetra Tech Project Manager.
- Field Inspection:** Field monitoring activities completed, Field equipment returned and inventoried, Verify field monitor breakdowns and logs are reviewed and submitted, Coordinate with Logistics to demobilize staff and equipment.
- Final Inspection:** Coordinate with contractor and vendors to resolve and complete damage reports, Coordinate with Client to address and close any outstanding complaints, Review identified Quality Management System deficiencies, Prepare final incident report with supporting incident data report and submit for review approval.
- Final Review:** Coordinate with contractor and vendors to resolve any remaining unfilled transactions, Coordinate with contractor and vendors to resolve outstanding invoices for rendered work, Coordinate submission of Letter of Invoice Finalization to the Client, Verify release for contractor and vendor invoices are released, Verify release monitoring and contractor invoices are paid, Verify contractor expenses have been submitted for rendering project accounting.
- Client Deliverables:** Coordinate with Client to obtain desired electronic data export format(s), Collect and inventory required paper documentation and prepare transmittal for Client acceptance, Perform data export(s) and prepare user documentation, Prepare and issue project electronic documentation to project action per Tetra Tech project action policy, Perform Program Manager review of project deliverables and correct noted deficiencies, Present documentation package to Client for acceptance and approval.
- Comments/Notes:**

RecoveryTrac™ Automated Debris Management System

In today's technology-driven society, paper-based systems are quickly becoming obsolete. Recognizing the migration to electronic-based systems, Tetra Tech has invested heavily in research and development to streamline the debris collection documentation with a focus on minimizing the cost to our clients while improving their visibility into debris project operations. This state-of-the-art technology has already shown to increase the efficiency and improve the management of debris removal efforts for many of our clients. RecoveryTrac™ is the result of

Tab C: Project Methodology

these efforts. RecoveryTrac™ is a scalable and fully featured disaster management application designed specifically to address the operational challenges faced during a disaster recovery project. Our proprietary ADMS technology, 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. The end result is accurate, real-time debris removal **information made available minutes after completion instead of the next day as with paper-based systems.**

RecoveryTrac™ is **one of only three systems validated** by the U.S. Army Corps of Engineers (USACE), and is the ADMS preferred by the USACE debris contractors, providing ADMS services to 6 of 8 USACE districts globally.

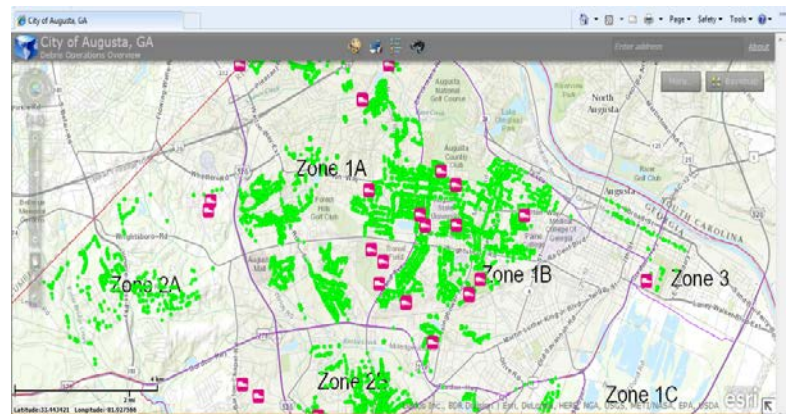
RecoveryTrac™ is owned by Tetra Tech and is a proven and full-featured electronic ticketing and disaster debris management system.

- USACE ADMS compliant
- 1,250 units immediately available (owned, not rented or leased)
- Connected or disconnected operation independent of cellular network issues
- Expedites invoice reconciliation
- Provides real-time GIS reports and pass map tracking in a web-based portal
- Advanced issue management toolset
- Automated photograph and GPS capture
- Intuitive and user-friendly and highly scalable

Real-Time Information and Visualization Increases Efficiency

Over the last several years, the cellular industry has invested heavily in the hardening of infrastructure in areas most susceptible to environmental disasters. We have taken advantage of these improvements by partnering with the Tier 1 providers to get the information from the field as quickly as possible, ideally in real-time. Field devices are constantly looking for connectivity to immediately upload collected information. Once the field data is uploaded, RecoveryTrac™ geospatial services provide rich information and visualization of the field data. Using the EOC operation board concept, users can visualize everything from damage concentrations to field debris equipment locations and more. The end result is better information, resulting in better decisions and less waste.

Exhibit C-9: Previous Collection and Current Truck Location



Coordinated Reporting and Quality Control

RecoveryTrac™ ADMS can provide the one-stop information in a consistent, easily consumed format that can provide a City -wide operations status picture. These data feeds are in real-time; there is no spreadsheet to import and no conversion—just a single GIS web data service to pull required information. Some examples of data included:

Tab C: Project Methodology

- Road Clearance Status (Pass Map)
- Hazard Removal Locations
- Debris Pickup Locations
- Truck and Monitor Locations
- Reported Damage Locations
- Debris Removed

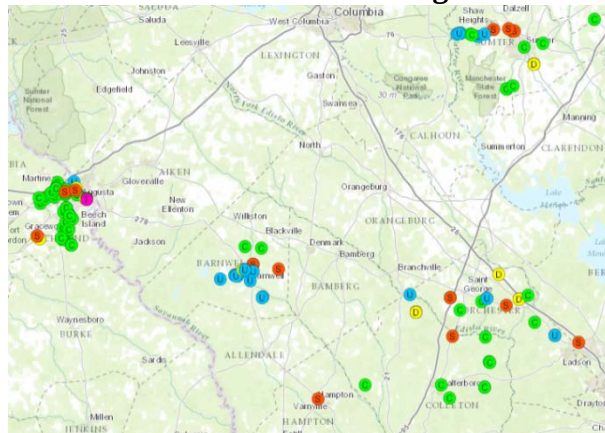
Data managers assigned to continuously monitor the information flowing into the system check for potential problems and dispatch supervisors to respond to the problem. The system monitoring panel shows real-time statistics and potential problems for operations based on exhaustive in-process quality checks that occur continually. The exhibit below details how we use RecoveryTrac™ ADMS to meet our quality standards using the direct monitoring and immediate feedback technique.

Debris Tracking

RecoveryTrac™ allows real-time access and visibility into field operations. At each debris collection point, the roadway monitor marks the “waypoint” or location of the debris pile to collect GPS coordinates. The map below 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.

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 in Exhibit C-10.

Exhibit C-10: Monitoring Locations



GRANT MANAGEMENT CONSULTING SERVICES

As one of the nation’s premier providers of hazard mitigation, emergency preparedness, and response and recovery services, Tetra Tech is dedicated to helping our clients plan for, respond to, and recover from natural and human-caused disasters. Tetra Tech maintains a multidisciplinary staff with experience in disaster response and recovery, grant administration, and emergency management. Many are first responders, former state and local emergency management directors, and consultants who have been at the forefront nationally in developing strategies and plans in support of the U.S. Department of Homeland Security’s (DHS) National Recovery Goals. ***Tetra Tech offers a complete, end-to-end solution that empowers our clients to protect their most precious assets in times of chaos.***

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 Public Assistance (PA) Program, including multiple, large PA programs for the States of 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. ***Our team’s record of success spans over 300 state and local government clients in response to over 50 declared presidential disasters, representing the recovery of more than \$4 billion in disaster grant funds. These activations have yielded grant program management engagements resulting in clients not only garnering grant funds but in retaining 99.8 percent of the funds received.***

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 Program¹ (FMA)
- FEMA 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.

EMERGENCY MANAGEMENT PLANNING AND TRAINING

In addition to response and recovery services, our team is one of the nation's premier emergency preparedness firms, with a staff of industry experts located throughout the United States. Our team members are recognized leaders in preparedness, having performed hundreds of planning, training, and exercise projects for local, state, and federal agencies, quasi-governmental organizations, institutions of higher education, private-sector businesses, and non-profit organizations. Many of our team members have previously served as state and local emergency managers and are acutely aware of how important planning and training are to maintaining an optimal level of readiness. Since 2001, our team has conducted over 300 emergency preparedness projects while ensuring compliance with current local, state, federal, and industry standards. Listed below are the preparedness programs Tetra Tech can offer.

- Continuity of operations, continuity of government, and business continuity planning
- Cybersecurity planning
- Disaster debris management planning
- Emergency operations planning/comprehensive emergency management planning
- Incident-specific and function-specific planning
- Hazard mitigation planning
- Threat, vulnerability, and risk assessment
- Training and exercises

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



RFP 17-042 Debris Monitoring Service - Hourly Rate Sheet
City of League City

EXHIBIT B

POSITIONS	HOURLY RATES
Senior Program Manager	\$175.00
Project Manager	\$ 69.00
Operations Manager	\$ 59.00
Field Manager	N/A (duplicate position)
Field Supervisor	\$42.00
Field Monitor	\$33.00
Debris Site / Tower Monitor	\$33.00
Load Ticket Data Entry Clerk	\$ 0.00
Collection Monitor	N/A (duplicate position)
Citizen Drop-Off Monitor	\$31.00
Billing / Invoice Manger	\$65.00
Billing / Invoice Analyst	\$45.00
Project Inspector (housing)	\$55.00
Project Assistant	\$42.00
Field Coordinator (Crew Monitor)	N/A (duplicate position)
Senior Project Inspector	\$125.00
Waste Management Specialist	\$ 95.00
Senior Public Assistance – Grant Management Consultant	\$135.00
Principal In Charge	\$ 95.00
Public Assistant Consultant	\$115.00
Public Assistant Consultant Aide	\$ 95.00
Project Coordinator	\$ 34.00
Debris Site Security	\$ 29.00
Safety Manager	\$ 65.00
Data Manager	\$ 49.00
Data Support Personnel	\$ 32.00
Marine Debris Monitor	\$ 38.00
Schedules / Expenditures (Logistics)	\$ 45.00
Environmental Specialist	\$ 95.00
Project Inspector (Infrastructure)	\$110.00
Residential Monitor	N/A (duplicate position)
Automated Ticket Specialist	\$ 55.00
Aerial Photographer	\$ 45.00
FEMA Specialist	\$145.00
Administration Assistant	\$ 42.00
Call Center Staff	\$ 29.00
Senior Technical Specialist	\$145.00
Fire / HAZMAT Subject Matter Expert / Trainer	\$125.00
OTHER REQUIRED POSITIONS: Proposer may include other positions, with hourly rates, as needed.	

2 C.F.R. § 200.326 and 2 C.F.R. Part 200, Appendix II, Required Contract Clauses

Requirements under the Uniform Rules. A non-Federal entity's contracts must contain the applicable contract clauses described in Appendix II to the Uniform Rules (Contract Provisions for non-Federal Entity Contracts Under Federal Awards), which are set forth below. 2 C.F.R. § 200.326. For some of the required clauses we have included sample language or a reference a non-Federal entity can go to in order to find sample language. Please be aware that this is sample language only and that the non-Federal entity alone is responsible ensuring that all language included in their contracts meets the requirements of 2 C.F.R. § 200.326 and 2 C.F.R. Part 200, Appendix II. We do not include sample language for certain required clauses (remedies, termination for cause and convenience, changes) as these must necessarily be written based on the non-Federal entity's own procedures in that area.

1. Remedies.

- a. Standard: Contracts for more than the simplified acquisition threshold (\$150,000) must address administrative, contractual, or legal remedies in instances where contractors violate or breach contract terms, and provide for such sanctions and penalties as appropriate. See 2 C.F.R. Part 200, Appendix II, ¶ A.
- b. Applicability: This requirement applies to all FEMA grant and cooperative agreement programs.

2. Termination for Cause and Convenience.

- a. All contracts in excess of \$10,000 must address termination for cause and for convenience by the non-Federal entity including the manner by which it will be effected and the basis for settlement. See 2 C.F.R. Part 200, Appendix II, ¶ B.
- b. Applicability. This requirement applies to all FEMA grant and cooperative agreement programs.

3. Equal Employment Opportunity.

- a. Standard. Except as otherwise provided under 41 C.F.R. Part 60, all contracts that meet the definition of "federally assisted construction contract" in 41 C.F.R. § 60-1.3 must include the equal opportunity clause provided under 41 C.F.R. § 60-1.4(b), in accordance with Executive Order 11246, *Equal Employment Opportunity* (30 Fed. Reg. 12319, 12935, 3 C.F.R. Part, 1964-1965 Comp., p. 339), as amended by Executive Order 11375, *Amending Executive Order 11246 Relating to Equal Employment Opportunity*, and implementing regulations at 41 C.F.R. Part 60 (Office of Federal Contract Compliance Programs, Equal Employment Opportunity, Department of Labor). See 2 C.F.R. Part 200, Appendix II, ¶ C.
- b. Key Definitions.

- (1) Federally Assisted Construction Contract. The regulation at 41 C.F.R. § 60-1.3 defines a “federally assisted construction contract” as any agreement or modification thereof between any applicant and a person for construction work which is paid for in whole or in part with funds obtained from the Government or borrowed on the credit of the Government pursuant to any Federal program involving a grant, contract, loan, insurance, or guarantee, or undertaken pursuant to any Federal program involving such grant, contract, loan, insurance, or guarantee, or any application or modification thereof approved by the Government for a grant, contract, loan, insurance, or guarantee under which the applicant itself participates in the construction work.
 - (2) Construction Work. The regulation at 41 C.F.R. § 60-1.3 defines “construction work” as the construction, rehabilitation, alteration, conversion, extension, demolition or repair of buildings, highways, or other changes or improvements to real property, including facilities providing utility services. The term also includes the supervision, inspection, and other onsite functions incidental to the actual construction.
- c. Applicability. This requirement applies to all FEMA grant and cooperative agreement programs.
- d. The regulation at 41 C.F.R. Part 60-1.4(b) requires the insertion of the following contract clause:
- “During the performance of this contract, the contractor agrees as follows:
- (1) The contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, 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, 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 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 considerations for employment without regard to race, color, religion, sex, or national origin.
 - (3) 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 advising the said labor union or workers' representatives of the contractor's commitments under this section,

and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

- (4) 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.
- (5) The contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the administering agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.
- (6) In the event of the contractor's noncompliance with the nondiscrimination clauses of this contract or with any of the said 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 or federally assisted construction contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions as 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.
- (7) The contractor will include the portion of the sentence immediately preceding paragraph (1) and 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 the administering agency may direct as a means of enforcing such provisions, including sanctions for noncompliance: Provided, however, That in the event a contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the administering agency the contractor may request the United States to enter into such litigation to protect the interests of the United States.”

4. Davis Bacon Act and Copeland Anti-Kickback Act.

- a. Applicability of Davis-Bacon Act. The Davis-Bacon Act only applies to the emergency Management Preparedness Grant Program, Homeland Security Grant Program, Nonprofit Security Grant Program, Tribal Homeland Security Grant Program, Port Security Grant Program, and Transit Security Grant Program. **It does not apply to other FEMA grant and cooperative agreement programs, including the Public Assistance Program.**
- b. All prime construction contracts in excess of \$2,000 awarded by non-Federal entities must include a provision for compliance with the Davis-Bacon Act (40

U.S.C. §§ 3141-3144 and 3146-3148) as supplemented by Department of Labor regulations at 29 C.F.R. Part 5 (Labor Standards Provisions Applicable to Contracts Covering Federally Financed and Assisted Construction)). See 2 C.F.R. Part 200, Appendix II, ¶ D.

- c. In accordance with the statute, contractors must be required to pay wages to laborers and mechanics at a rate not less than the prevailing wages specified in a wage determination made by the Secretary of Labor. In addition, contractors must be required to pay wages not less than once a week.
- d. The non-Federal entity must place a copy of the current prevailing wage determination issued by the Department of Labor in each solicitation. The decision to award a contract or subcontract must be conditioned upon the acceptance of the wage determination. The non-Federal entity must report all suspected or reported violations to the Federal awarding agency.
- e. In contracts subject to the Davis-Bacon Act, the contracts must also include a provision for compliance with the Copeland “Anti-Kickback” Act (40 U.S.C. § 3145), as supplemented by Department of Labor regulations at 29 C.F.R. Part 3 (Contractors and Subcontractors on Public Building or Public Work Financed in Whole or in Part by Loans or Grants from the United States). The Copeland Anti-Kickback Act provides that each contractor or subrecipient must be prohibited from inducing, by any means, any person employed in the construction, completion, or repair of public work, to give up any part of the compensation to which he or she is otherwise entitled. The non-Federal entity must report all suspected or reported violations to FEMA.
- f. The regulation at 29 C.F.R. § 5.5(a) does provide the required contract clause that applies to compliance with both the Davis-Bacon and Copeland Acts. However, as discussed in the previous subsection, the Davis-Bacon Act does not apply to Public Assistance recipients and subrecipients. **In situations where the Davis-Bacon Act does not apply, neither does the Copeland “Anti-Kickback Act.”** However, for purposes of grant programs where both clauses do apply, FEMA requires the following contract clause:

“Compliance with the Copeland “Anti-Kickback” Act.

(1) Contractor. 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.

(2) Subcontracts. The contractor or subcontractor 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 subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all of these contract clauses.

(3) Breach. A breach of the contract clauses above may be grounds for termination of the contract, and for debarment as a contractor and subcontractor as provided in 29 C.F.R. § 5.12.”

5. Contract Work Hours and Safety Standards Act.

- a. Applicability: This requirement applies to all FEMA grant and cooperative agreement programs.
- b. Where applicable (see 40 U.S.C. § 3701), all contracts awarded by the non-Federal entity in excess of \$100,000 that involve the employment of mechanics or laborers must include a provision for compliance with 40 U.S.C. §§ 3702 and 3704, as supplemented by Department of Labor regulations at 29 C.F.R. Part 5. See 2 C.F.R. Part 200, Appendix II, ¶ E.
- c. Under 40 U.S.C. § 3702, each contractor must be required to compute the wages of every mechanic and laborer on the basis of a standard work week of 40 hours. Work in excess of the standard work week is permissible provided that the worker is compensated at a rate of not less than one and a half times the basic rate of pay for all hours worked in excess of 40 hours in the work week.
- d. The requirements of 40 U.S.C. § 3704 are applicable to construction work and provide that no laborer or mechanic must be required to work in surroundings or under working conditions which are unsanitary, hazardous or dangerous. These requirements do not apply to the purchases of supplies or materials or articles ordinarily available on the open market, or contracts for transportation or transmission of intelligence.
- e. The regulation at 29 C.F.R. § 5.5(b) provides the required contract clause concerning compliance with the Contract Work Hours and Safety Standards Act:

“Compliance with the Contract Work Hours and Safety Standards Act.

- (1) Overtime requirements. No contractor or subcontractor 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-half times 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 subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor 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 (write in the name of the Federal agency or the loan or grant recipient) 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 subcontractor under any such contract or any other 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 subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (2) of this section.

(4) Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (1) through (4) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (1) through (4) of this section.”

6. Rights to Inventions Made Under a Contract or Agreement.

- a. Stafford Act Disaster Grants. This requirement **does not apply to the Public Assistance**, Hazard Mitigation Grant Program, Fire Management Assistance Grant Program, Crisis Counseling Assistance and Training Grant Program, Disaster Case Management Grant Program, and Federal Assistance to Individuals and Households – Other Needs Assistance Grant Program, as FEMA awards under these programs do not meet the definition of “funding agreement.”
- b. If the FEMA award meets the definition of “funding agreement” under 37 C.F.R. § 401.2(a) and the non-Federal entity 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 non-Federal entity must comply with the requirements of 37 C.F.R. 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

FEMA. See 2 C.F.R. Part 200, Appendix II, ¶ F.

- c. The regulation at 37 C.F.R. § 401.2(a) currently defines “funding agreement” as any contract, grant, or cooperative agreement entered into between any Federal agency, other than the Tennessee Valley Authority, and any contractor for the performance of experimental, developmental, or research work funded in whole or in part by the Federal government. This term also includes any assignment, substitution of parties, or subcontract of any type entered into for the performance of experimental, developmental, or research work under a funding agreement as defined in the first sentence of this paragraph.
7. Clean Air Act and the Federal Water Pollution Control Act. Contracts of amounts in excess of \$150,000 must contain a provision that requires the contractor to agree 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). Violations must be reported to FEMA and the Regional Office of the Environmental Protection Agency. See 2 C.F.R. Part 200, Appendix II, ¶ G.
 - a. The following provides a sample contract clause concerning compliance for contracts of amounts in excess of \$150,000:

“Clean Air Act

- (1) The contractor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act, as amended, 42 U.S.C. § 7401 et seq.
- (2) The contractor agrees to report each violation to the (name of the state agency or local or Indian tribal government) and understands and agrees that the (name of the state agency or local or Indian tribal government) will, in turn, report each violation as required to assure notification to the (name of recipient), Federal Emergency Management Agency, and the appropriate Environmental Protection Agency Regional Office.
- (3) The contractor agrees to include these requirements in each subcontract exceeding \$150,000 financed in whole or in part with Federal assistance provided by FEMA.

Federal Water Pollution Control Act

- (1) The contractor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Federal Water Pollution Control Act, as amended, 33 U.S.C. 1251 et seq.
- (2) The contractor agrees to report each violation to the (name of the state agency or local or Indian tribal government) and understands and agrees that the (name of the state agency or local or Indian tribal

government) will, in turn, report each violation as required to assure notification to the (name of recipient), Federal Emergency Management Agency, and the appropriate Environmental Protection Agency Regional Office.

(3) The contractor agrees to include these requirements in each subcontract exceeding \$150,000 financed in whole or in part with Federal assistance provided by FEMA.”

8. Debarment and Suspension.

- a. Applicability: This requirement applies to all FEMA grant and cooperative agreement programs.
- b. Non-federal entities and contractors are subject to the debarment and suspension regulations implementing Executive Order 12549, *Debarment and Suspension* (1986) and Executive Order 12689, *Debarment and Suspension* (1989) at 2 C.F.R. Part 180 and the Department of Homeland Security’s regulations at 2 C.F.R. Part 3000 (Nonprocurement Debarment and Suspension).
- c. These regulations restrict awards, subawards, and contracts with certain parties that are debarred, suspended, or otherwise excluded from or ineligible for participation in Federal assistance programs and activities. See 2 C.F.R. Part 200, Appendix II, ¶ H; and *Procurement Guidance for Recipients and Subrecipients Under 2 C.F.R. Part 200 (Uniform Rules): Supplement to the Public Assistance Procurement Disaster Assistance Team (PDAT) Field Manual* Chapter IV, ¶ 6.d, and Appendix C, ¶ 2 [hereinafter *PDAT Supplement*]. A contract award must not be made to parties listed in the SAM Exclusions. SAM Exclusions is the list maintained by the General Services Administration that contains the names of parties debarred, suspended, or otherwise excluded by agencies, as well as parties declared ineligible under statutory or regulatory authority other than Executive Order 12549. SAM exclusions can be accessed at www.sam.gov. See 2 C.F.R. § 180.530; *PDAT Supplement*, Chapter IV, ¶ 6.d and Appendix C, ¶ 2.
- d. In general, an “excluded” party cannot receive a Federal grant award or a contract within the meaning of a “covered transaction,” to include subawards and subcontracts. This includes parties that receive Federal funding indirectly, such as contractors to recipients and subrecipients. The key to the exclusion is whether there is a “covered transaction,” which is any nonprocurement transaction (unless excepted) at either a “primary” or “secondary” tier. Although “covered transactions” do not include contracts awarded by the Federal Government for purposes of the nonprocurement common rule and DHS’s implementing regulations, it does include some contracts awarded by recipients and subrecipient.
- e. Specifically, a covered transaction includes the following contracts for goods or services:

- (1) The contract is awarded by a recipient or subrecipient in the amount of at least \$25,000.
 - (2) The contract requires the approval of FEMA, regardless of amount.
 - (3) The contract is for federally-required audit services.
 - (4) A subcontract is also a covered transaction if it is awarded by the contractor of a recipient or subrecipient and requires either the approval of FEMA or is in excess of \$25,000.
- d. The following provides a debarment and suspension clause. It incorporates an optional method of verifying that contractors are not excluded or disqualified:

“Suspension and Debarment

- (1) 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).
- (2) 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.
- (3) This certification is a material representation of fact relied upon by (insert name of subrecipient). 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 (name of state agency serving as recipient and name of subrecipient), the Federal Government may pursue available remedies, including but not limited to suspension and/or debarment.
- (4) The bidder or proposer 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 period of any contract that may arise from this offer. The bidder or proposer further agrees to include a provision requiring such compliance in its lower tier covered transactions.”

9. Byrd Anti-Lobbying Amendment.

- a. Applicability: This requirement applies to all FEMA grant and cooperative agreement programs.
- b. Contractors that apply or bid for an award of \$100,000 or more must file the required certification. See 2 C.F.R. Part 200, Appendix II, ¶ I; 44 C.F.R. Part 18; *PDAT Supplement*, Chapter IV, 6.c; Appendix C, ¶ 4.
- c. 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 must 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 non-Federal award. See PDAT Supplement, Chapter IV, ¶ 6.c and Appendix C, ¶ 4.

d. The following provides a Byrd Anti-Lobbying contract clause:

“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.”

APPENDIX A, 44 C.F.R. PART 18 – CERTIFICATION REGARDING LOBBYING

Certification for Contracts, Grants, Loans, and Cooperative Agreements

(To be submitted with each bid or offer exceeding \$100,000)

The undersigned [Contractor] 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, _____, 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

Name and Title of Contractor's Authorized Official

Date"

10. Procurement of Recovered Materials.

- a. Applicability: This requirement applies to all FEMA grant and cooperative agreement programs.
- b. A non-Federal entity that is a state agency or agency of a political subdivision of a state and its contractors must comply with Section 6002 of the Solid Waste Disposal Act, Pub. L. No. 89-272 (1965) (codified as amended by the Resource Conservation and Recovery Act at 42 U.S.C. § 6962). See 2 C.F.R. Part 200, Appendix II, ¶ J; 2 C.F.R. § 200.322; *PDAT Supplement*, Chapter V, ¶ 7.
- c. The requirements of Section 6002 include procuring only items designated in guidelines of the EPA at 40 C.F.R. Part 247 that contain the highest percentage of recovered materials practicable, consistent with maintaining a satisfactory level of

competition, where the purchase price of the item exceeds \$10,000 or the value of the quantity acquired by the preceding fiscal year exceeded \$10,000; procuring solid waste management services in a manner that maximizes energy and resource recovery; and establishing an affirmative procurement program for procurement of recovered materials identified in the EPA guidelines.

- d. The following provides the clause that a state agency or agency of a political subdivision of a state and its contractors can include in contracts meeting the above contract thresholds:

“(1) 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—

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

(ii) Meeting contract performance requirements; or

(iii) At a reasonable price.

(2) Information about this requirement, along with the list of EPA-designate items, is available at EPA’s Comprehensive Procurement Guidelines web site, <https://www.epa.gov/smm/comprehensive-procurement-guideline-cpg-program>.”

11. Additional FEMA Requirements.

- a. The Uniform Rules authorize FEMA to require additional provisions for non-Federal entity contracts. FEMA, pursuant to this authority, requires or recommends the following:

- b. Changes.

To be eligible for FEMA assistance under the non-Federal entity’s FEMA grant or cooperative agreement, the cost of the change, modification, change order, or constructive change must be allowable, allocable, within the scope of its grant or cooperative agreement, and reasonable for the completion of project scope. FEMA recommends, therefore, that a non-Federal entity include a changes clause in its contract that describes how, if at all, changes can be made by either party to alter the method, price, or schedule of the work without breaching the contract. The language of the clause may differ depending on the nature of the contract and the end-item procured.

- c. Access to Records.

All non-Federal entities must place into their contracts a provision that all contractors and their successors, transferees, assignees, and subcontractors acknowledge and

agree to comply with applicable provisions governing Department and FEMA access to records, accounts, documents, information, facilities, and staff. See DHS Standard Terms and Conditions, v 3.0, ¶ XXVI (2013).

d. The following provides a contract clause regarding access to records:

“Access to Records. The following access to records requirements apply to this contract:

(1) The contractor agrees to provide (insert name of state agency or local or Indian tribal government), (insert name of recipient), the FEMA Administrator, the Comptroller General of the United States, or any of their authorized representatives access to any books, documents, papers, and records of the Contractor which are directly pertinent to this contract for the purposes of making audits, examinations, excerpts, and transcriptions.

(2) The Contractor agrees to permit any of the foregoing parties to reproduce by any means whatsoever or to copy excerpts and transcriptions as reasonably needed.

(3) The contractor agrees to provide the FEMA Administrator or his authorized representatives access to construction or other work sites pertaining to the work being completed under the contract.”

12. DHS Seal, Logo, and Flags.

- a. All non-Federal entities must place in their contracts a provision that a 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. See DHS Standard Terms and Conditions, v 3.0, ¶ XXV (2013).
- b. The following provides a contract clause regarding 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.”

13. Compliance with Federal Law, Regulations, and Executive Orders.

- a. All non-Federal entities must place into their contracts an acknowledgement that FEMA financial assistance will be used to fund the contract along with the requirement that the contractor will comply with all applicable federal law, regulations, executive orders, and FEMA policies, procedures, and directives.
- b. The following provides a contract clause regarding Compliance with Federal Law, Regulations, and Executive Orders: “This is an acknowledgement that FEMA financial assistance will be used to fund the contract only. The contractor

will comply with all applicable federal law, regulations, executive orders, FEMA policies, procedures, and directives.”

14. No Obligation by Federal Government.

- a. The non-Federal entity must include a provision in its contract that states that the Federal Government is not a party to the 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.
- b. The following provides a contract clause regarding no obligation by the 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.”

15. Program Fraud and False or Fraudulent Statements or Related Acts.

- a. The non-Federal entity must include a provision in its contract that the contractor acknowledges that 31 U.S.C. Chap. 38 (Administrative Remedies for False Claims and Statements) applies to its actions pertaining to the contract.
- b. The following provides a contract clause regarding Fraud and False or Fraudulent or Related Acts: “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.”

CLIENT LETTERHEAD

Effective Date: _____

Ms. Betty Kamara
Contracts Administrator
Tetra Tech, Inc.
2301 Lucien Way, Suite 120
Maitland, FL 32804

Re: Notice-To-Proceed (NTP): EVENT NAME

Dear Ms. Kamara,

The City of League City, Texas hereby gives Tetra Tech, Inc. a "Notice to Proceed" with mobilization of personnel to assist with Disaster Debris Monitoring Services as a result of the recent EVENT NAME.

On the basis of this action, you are authorized to proceed in accordance with the terms and conditions of the Master Services Agreement procured under the City of League City, Texas RFP No. 17-042 for Disaster Debris Monitoring Services. A task order with a detailed scope and an initial not-to-exceed project amount will be provided for review and execution.

"Notice to Proceed" is hereby given and accepted by the signature below.

Please contact me to coordinate efforts. I can be reached at _____.

Sincerely,

NAME
TITLE

Accepted by:

TETRA TECH, INC.

By: _____

Name: _____

Title: _____

Date: _____

**CITY OF LEAGUE CITY, TEXAS
TASK ORDER #1**

In accordance with the Notice-to-Proceed dated _____ issued by the CITY OF LEAGUE CITY, TEXAS (Client) to TETRA TECH, INC. (Contractor), Client hereby authorizes the services to be performed for the period of performance and estimated budget set forth herein:

PROJECT: Disaster Debris Monitoring Services
EVENT NAME

DURATION OF WORK:

Estimated period of performance is from _____ through _____

To the extent the period of performance is required to be extended due to reasons beyond Contractor's control; such unforeseen circumstances may result in an increase in the project timeline and budget.

SCOPE:

Contractor shall provide the following services:

- a.
- b.
- c.

ESTIMATED COST (not to exceed)

Initial Not-to Exceed Amount: _____

Position	Hourly Rate	Estimated Hours	Estimated Total
Total Estimated Project Costs*			

**The above estimated level of effort and associated costs are based on available information at the time the estimates were prepared and do not represent the actual cost of the project. Due to the uncertain nature of the work involved, Contractor cannot guarantee that the work will be performed within the estimated amount provided above. If, during the performance of this work, it is determined additional hours, expenses and/or funding is required in order to complete the project, Contractor and Client will mutually agree on a new/revised estimated cost and Contractor will not proceed without written authorization from an authorized representative of Client.*

INVOICE AND PAYMENT:

Monthly Invoices -- Invoices are to be mailed to:

CITY OF LEAGUE CITY, TEXAS
ATT: Accounts Payable
CLIENT ADDRESS
CLIENT PHONE
CLIENT EMAIL

Payment terms are Net 30 days -- Payments are to be mailed to:

Tetra Tech, Inc.
PO 911642
Denver, CO 80291-1642

APPROVED BY:

TETRA TECH, INC.

Signature: _____

Name: _____

Title: _____

Date: _____

CITY OF LEAGUE CITY, TEXAS

Signature: _____

Name: _____

Title: _____

Date: _____

DRAFT

CITY OF LEAGUE CITY, TEXAS

Task Order #1

CERTIFICATE OF INTERESTED PARTIES

FORM 1295

1 of 1

Complete Nos. 1 - 4 and 6 if there are interested parties.
Complete Nos. 1, 2, 3, 5, and 6 if there are no interested parties.

OFFICE USE ONLY CERTIFICATION OF FILING

1 Name of business entity filing form, and the city, state and country of the business entity's place of business.

Tetra Tech, Inc.
Houston, TX United States

Certificate Number:
2017-250235

Date Filed:
08/16/2017

Date Acknowledged:

2 Name of governmental entity or state agency that is a party to the contract for which the form is being filed.

City of League City, Texas

3 Provide the identification number used by the governmental entity or state agency to track or identify the contract, and provide a description of the services, goods, or other property to be provided under the contract.

RFP #17-042
Disaster Debris Monitoring Services

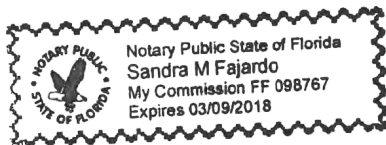
4	Name of Interested Party	City, State, Country (place of business)	Nature of interest (check applicable)	
			Controlling	Intermediary

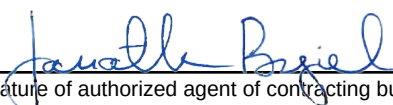
5 Check only if there is NO Interested Party.



6 AFFIDAVIT

I swear, or affirm, under penalty of perjury, that the above disclosure is true and correct.




Signature of authorized agent of contracting business entity

AFFIX NOTARY STAMP / SEAL ABOVE

Sworn to and subscribed before me, by the said Jonathan Burgiel, Vice President/Ops Manager, this the 16th day of August, 20 17, to certify which, witness my hand and seal of office.



Signature of officer administering oath

Sandra M. Fajardo

Printed name of officer administering oath

Notary Public

Title of officer administering oath

**League City,
Texas**



**Debris Monitoring Service
RFP#17-042**

Ms. Kylie Box, Buyer
City of League City
Purchasing Department
300 West Walker
League City, TX 77573

Subject: **Debris Monitoring Services (RFP #17-042)**

Dear Ms. Box and Members of the Evaluation Committee,

Given its location near the Gulf of Mexico, the City of League City (City) is vulnerable to tropical storms and hurricanes. Recognizing the impact a disaster could have, it is the City's intention to retain the services of a firm that can provide disaster debris monitoring services.

Tetra Tech is a recognized leader in disaster debris monitoring nationwide and is well suited to assist the City for the following reasons:

- **Unmatched Texas Debris Management Experience.** Our team has assisted over 100 communities in Texas with response and recovery efforts following Hurricanes Ike, Dolly, and Rita; the 2011 Texas Drought and Wildfires; the May and October 2015 Floods; and the 2016 Severe Weather Events. Our team has monitored the collection, removal, and Federal Emergency Management Agency (FEMA) reimbursement of over *16.8 million CYs of disaster-generated debris in Texas*. As a result, we have an in-depth understanding of the challenges the City's debris operations may face. Key members of our staff also train local governments throughout the state on debris management issues for organizations such as the North Central Texas Council of Governments, Houston-Galveston Area Council, Texoma Council of Governments, Capital Area Council of Governments, Texas Public Works Association, and the Texas Division of Emergency Management Conference. In addition, our team has assisted in developing debris management plans and other emergency management plans for numerous Texas communities, including Collin County, City of Dallas, Fort Bend County, Brazoria County, City of Grand Prairie, Parker County, and City of Corpus Christi, among others. Our team also has a long history of working with Texas state departments, including the Texas Commission on Environmental Quality (TCEQ) and Texas Department of Transportation (TxDOT).
- **Immediate Response for League City's Needs.** Tetra Tech is available to the City before, during, and after disaster. At a moment's notice, the Tetra Tech team will support the City through all phases of disaster management planning and any other pre-event developments as well as any requests presented by the City. *Should the City need engineering, environmental, accounting, FEMA Public Assistance (PA) eligibility, or other expertise, we are prepared to provide these resources to the City immediately.* Much like our support for many Texas communities following Hurricane Ike, our staff continuity is unparalleled in the industry, and we will stand by the City for years following the disaster. With seven offices throughout Texas, our team is able to quickly respond to the City. These multidisciplinary offices support both public and private sector clients throughout Texas on an array of projects in the disaster and non-disaster space.
- **Nationally Recognized Leader in Debris Monitoring and Disaster Grant Management.** Tetra Tech has assisted clients with response to *every major disaster affecting the United States in the past 15 years*, including hurricanes (Hurricanes Jeanne, Frances, Charley, Sandy, Katrina, Ike, and most recently, Matthew), floods (Vermont, Colorado, South Carolina, Texas, and Louisiana), fires

Tetra Tech, Inc.

2901 Wilcrest Drive, Suite 400, Houston, TX 77042

Tel 321-441-8500 Fax 321-441-8501 tetratech.com

(California, Texas), earthquakes, and ice storms. Collectively, our team has overseen and managed the recovery of over 77 million CYs of debris on behalf of over 300 public sector clients and has assisted clients with obtaining and managing over \$4 billion in post-disaster grants. We are intimately familiar with obtaining post-disaster grants for our clients and helping them successfully utilize and document these grants to meet federal grant program requirements.

- **Automated Debris Management System Technology.** RecoveryTrac™ allows our staff to monitor and manage a recovery effort electronically, increasing productivity while decreasing fraud, human error, and cost to the City. Used exclusively in our last 83 disaster projects, RecoveryTrac™ will give the City real-time debris collection tracking that provides accurate and timely reporting to City stakeholders. **RecoveryTrac™ was designed to provide real-time data on missed pickups, damage caused by debris haulers, waypoints for every pile of debris picked up, and street-level pass maps,** which will meet the unique data needs of the City. In addition, **RecoveryTrac™ is one of only three systems validated by the United States Army Corps of Engineers (USACE) and is the ADMS preferred by the USACE debris contractors.** The specifications set forth by the USACE are designed to support the largest and most devastating disasters.
- **FEMA and TDEM Relationships through Past Work History.** Tetra Tech maintains a staff of reimbursement experts who have recovered millions of dollars of eligible FEMA Public Assistance reimbursement costs incurred by our clients. Key members of our team include **Mr. John Buri**, who has provided reimbursement and audit support to FEMA Region VI and TDEM since 2005, and **Mr. Dick Hainje**, former regional administrator of FEMA Region VII. These individuals frequently meet with state officials and FEMA Region IV on matters related to reimbursement policies.

Tetra Tech would be honored to serve as the City's debris monitoring and consulting services provider. We are fully prepared to provide the high quality service League City expects. For questions regarding this response, please feel free to contact the representatives listed below. As an authorized representative of the firm, I am able to contractually bind the firm.

Technical representative:

Mr. John Buri

2901 Wilcrest Drive, Suite 400
Houston, TX 77042
(832) 251-5197 | (713) 737-5763
john.buri@tetrattech.com

Sincerely,
Tetra Tech, Inc.

Contractual representative:

Ms. Betty Kamara

2301 Lucien Way, Suite 120
Maitland, FL 32751
(407) 803-2551 | (321) 441-8501 (f)
betty.kamara@tetrattech.com



Jonathan Burgiel, Vice President
2301 Lucien Way, Suite 120, Maitland, FL 32751
(321) 441-8510 | (321) 441-8501 (f)
jonathan.burgiel@tetrattech.com

TABLE OF CONTENTS

Letter of Transmittal

Qualifications TAB A

Firm Overview Page A-1

Ability to Respond with Adequate Resources..... Page A-4

Project Staff Qualifications Page A-6

- Résumés

Experience TAB B

Debris Monitoring Contracts within 250 Mile Radius Page B-1

Knowledge and Expertise in Debris Management Page B-2

Large-Scale Debris Monitoring Experience..... Page B-6

Expertise and Experience with FEMA Eligibility Requirements Page B-7

Past Relevant Experience Page B-11

- Project Profiles

Project Methodology TAB C

Project Management Methodology..... Page C-1

Operational Schedule Page C-2

Technical Work Plan..... Page C-5

Grant Management Consulting Services..... Page C-14

Emergency Management Planning and Training Page C-15

Hourly Rate Sheet TAB D

References.....TAB E

Conflict of Interest and Proposer Certification..... TAB F

- Conflict of Interest Questionnaire (CIQ)
- Proposer Certification and Addenda Acknowledgement

TAB A: QUALIFICATIONS

FIRM OVERVIEW

Tetra Tech, Inc. (Tetra Tech) is a leading provider of consulting, engineering, 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; disaster recovery, 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. With 16,000 employees worldwide, Tetra Tech's capabilities span the entire project life cycle.

Tetra Tech has a proven track record of disaster management response and preparedness in Texas, including providing debris monitoring services to the City of League City following Hurricane Ike.

In total, our firm has assisted over 100 communities in Texas with response and recovery efforts following Hurricanes Ike, Dolly, Rita, the 2011 Texas Drought and Wildfires, the May 2015 and October 2015 floods, and the 2016 Severe Weather Events.

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 \$4 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 ***77 million cubic yards (CYs) of debris*** as well as the ***demolition of over 5,000 uninhabitable residential and commercial structures.***



Within our proposal, we demonstrate the following:

- We are duly qualified to perform the scope of work outlined in League City's (City) request for proposal, as evidenced by our staff's extensive qualifications for many of the nation's most

Tab A: Qualifications

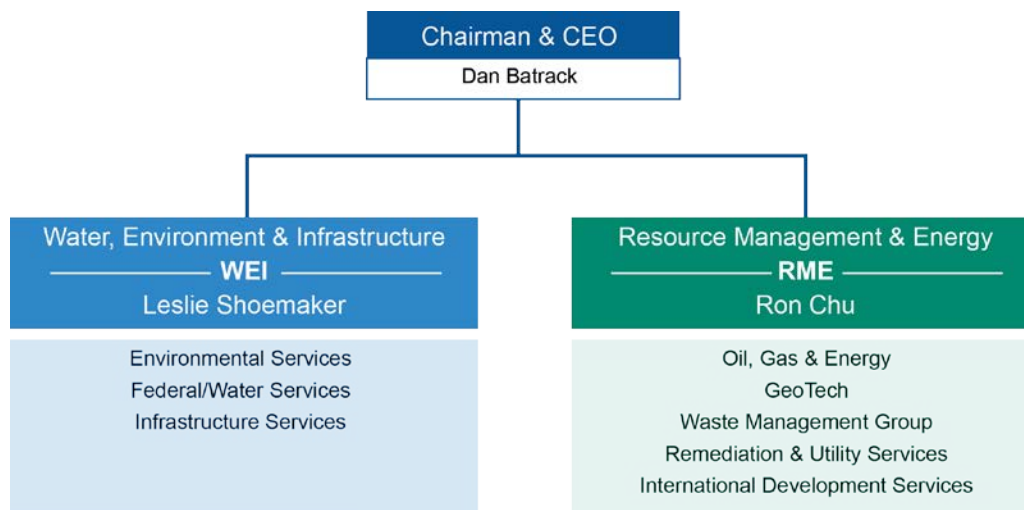
catastrophic disasters and our team's previous experience with disaster recovery in the City following Hurricane Ike.

- We are committed to providing the City with skilled resources within the time frames specified by the City, as evidenced by the depth of experience of our senior management team and project management team, their historical performance across the nation and with the City, and our commitment to perform in a timely manner.
- We offer a proven and successful technical and management approach that has been refined in disaster activations across the United States, including 16 projects with over 1 million CYs of debris, as evidenced by our team's detailed scope of work and significant work history in the disaster response marketplace and within the City.
- We offer detailed reporting, real-time debris collection tracking, and mapping capabilities that are driven by our RecoveryTrac™ automated debris management system (ADMS) technology, which allows our staff to monitor and manage a recovery effort electronically in addition to increasing productivity while decreasing fraud, human error, and cost to the City.
- We have the financial resources and cash flow for a large and long-term recovery effort.

Corporate Organizational Structure

Tetra Tech is organized into two primary business units and operates from 400 offices worldwide, with regional emergency management/homeland security consultants located throughout the U.S. Our corporate organizational chart has been included below. The Emergency Management and Community Resilience (EMCR) team falls under the Water, Environment & Infrastructure (WEI) unit and the management of this contract will also fall under this unit. WEI delivers innovative solutions including emergency management and community resilience, water management, environmental restoration, government consulting, and a broad range of civil infrastructure services for facilities, transportation, and regional and local development.

Exhibit A-1. Corporate Organizational Chart



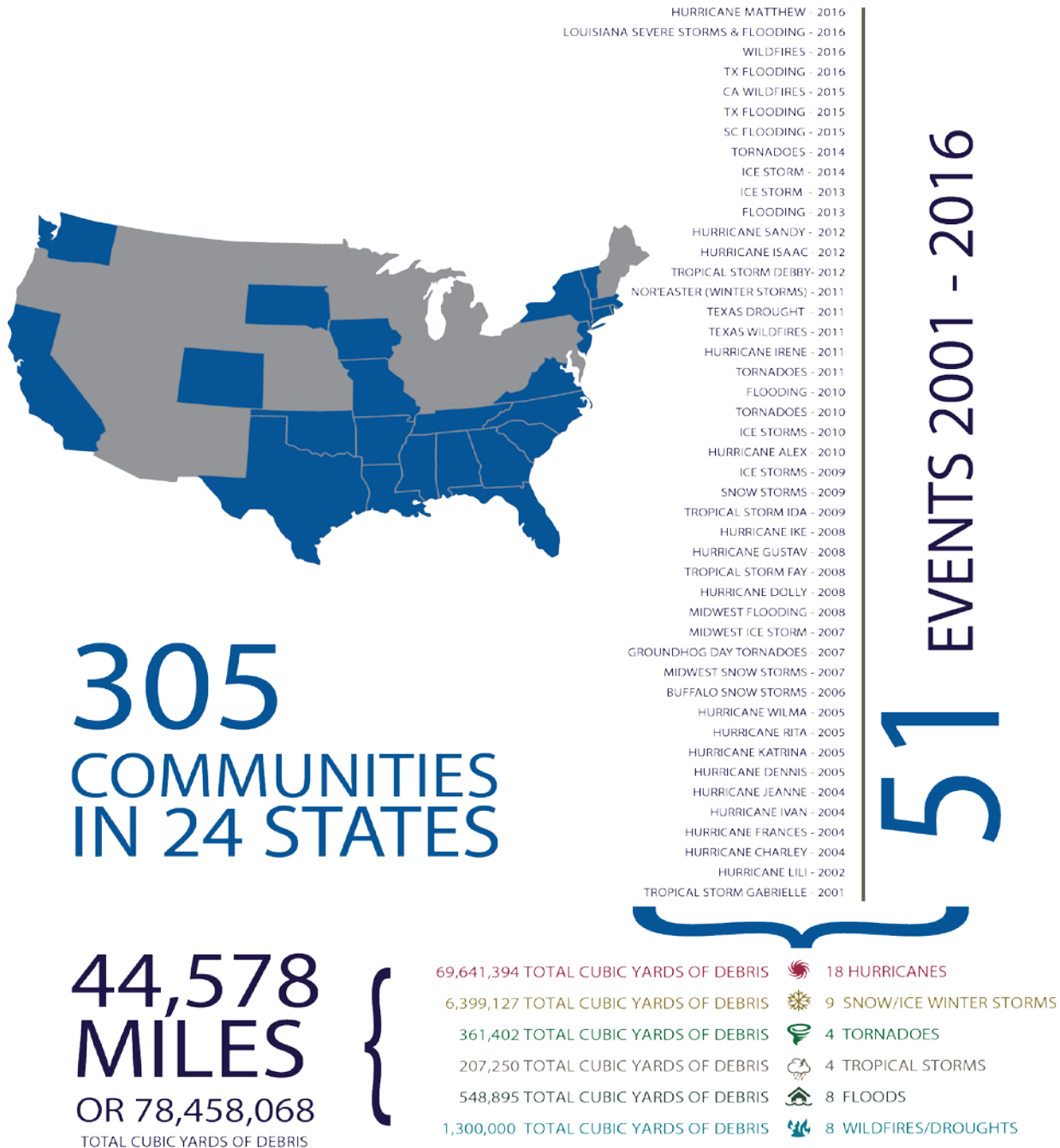
Summary of Disaster Debris Monitoring Experience

Since 1989, our team has helped clients across the country recover from the damaging effects of hurricanes, tropical storms, floods, and ice storms. In total, we have successfully performed over 300 projects similar in nature to the services requested by the City.

Tab A: Qualifications

Additionally, one of the keys to maintaining readiness in the field of disaster response and recovery is remaining active year-round. **Our team has responded to 20 major disaster declarations since 2011, totaling more than 140 clients throughout the country.** *Tab B: Qualifications* provides additional information about our qualifications, project experience, and ability to fulfill the requirements of the City's scope of work.

Exhibit A-2: Experience Summary



Tab A: Qualifications

ABILITY TO RESPOND WITH ADEQUATE RESOURCES

As a United States Army Corps of Engineers (USACE) contractor for large-scale debris removal missions and a firm with multiple statewide contracts, Tetra Tech prepares and responds to multiple contractual obligations routinely by planning, implementing, and updating a concept of operations plan (CONOPS). The Tetra Tech CONOPS uses the Incident Command System (ICS) structure, which allows the project team to scale as needed, coordinate responses, and adapt an organization structure to match the needs and complexities of projects. The Tetra Tech CONOPS also provides the project team with established common processes for managing resources, timelines, schedules, problem resolution, and tasks.

Disasters and Simultaneous Contracts

- Hurricane Matthew: 35
- California Wildfires: 7
- Winter Storm Pax: 7
- Superstorm Sandy: 13
- Hurricane Isaac: 5
- Winter Storm Alfred: 19
- Hurricane Irene: 22
- Hurricane Ike: 80

In addition, Tetra Tech reviews its projected workload and regularly assesses the firm's staffing and resource requirements. The assessment of staff and resources is tested annually during a firm-wide tabletop exercise. The firm-wide tabletop exercise tests our readiness while also identifying areas for improvement. Topics that are continually addressed and refined are managing logistical deployment resources, recruiting, ADMS implementation, and changes necessary to comply with current federal guidance. Some positions within the Tetra Tech ICS organization structure are responsible for field-level responsibilities and some are an overarching support function for the project's needs. The Tetra Tech ICS organizational structure also contains subcommittees or task forces who are assigned specific tasks or support the resolution of problems identified.

Hiring Approach

Immediately following the impact of a known event, Tetra Tech will establish Human Resources (HR) hiring centers in the field throughout the region in the affected areas. The hiring center provides efficient hiring and training processes that meet the stringent Tetra Tech field operation requirements and any specific requirements of our clients. The hiring center is designed to be quickly mobilized, transported, and set up to allow near immediate response for field staffing needs. The hiring center is typically staffed by three trained HR representatives and can process hiring of hundreds of staff per day. The hiring center can be quickly scaled to meet the most demanding needs for staff. The hiring center advertises locally and reaches out to local workforce centers to utilize persons seeking employment in the community.

Tetra Tech has successfully 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. This includes over 3,200 staff in Texas following Hurricane Ike.

The Tetra Tech team members have personally hired and deployed approximately 10,000 emergency response personnel collectively for over 50 disaster events. Exhibit A-3 highlights some of Tetra Tech's representative deployment mobilization response periods.

Tab A: Qualifications

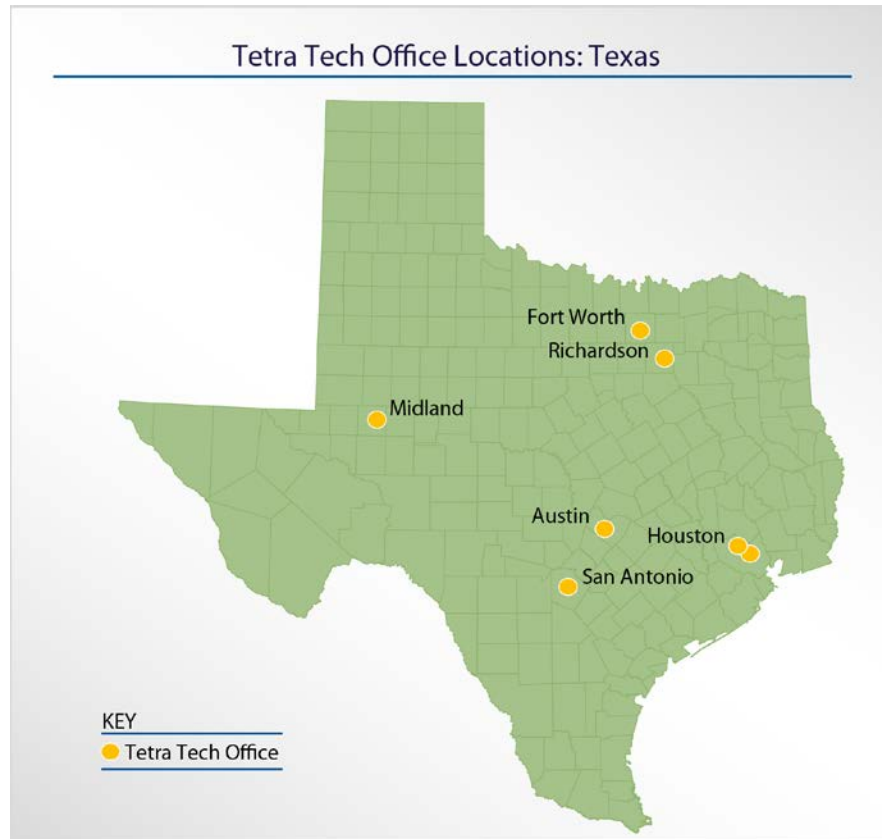
Exhibit A-3: Representative Tetra Tech Response Deployment

Event and Year	Staff Mobilized	Mobilization Periods*
Hurricane Charley (2004)	150	3 days
Hurricane Frances (2004)	75	2 days
Hurricane Jeanne (2004)	50	2 days
Hurricane Ivan (2004)	600	5 days
Hurricane Dennis (2005)	250	5 days
Hurricane Rita (2005)	200	7 days
Hurricane Katrina (2005)	500	14 days
Hurricane Wilma (2005)	1,500	14 days
Buffalo Snowstorms (2006)	250	5 days
Midwest Severe Winter Storms (2007)	200	7 days
Midwest Severe Winter Storms (2008)	150	7 days
Hurricane Dolly (2007)	150	5 days
Hurricane Gustav (2008)	250	5 days
Hurricane Ike (2008)	3,200 (mostly in TX)	10 days
Hurricane Irene (2011)	500	5 days
State of Connecticut Snowstorm (2011)	450	7 days
Hurricane Isaac (2012)	400	3 days
Hurricane Sandy (2012)	90	4 days
Hurricane Joaquin (2015)	12	10 days
California Wildfires (2015)	100	2 days
Texas Flooding (May 2015)	150	3 days
Texas Flooding (October 2015)	50	2 days
Hurricane Matthew (2016)	890	5 days

Local Presence Facilitates a Rapid Mobilization

Minimizing the impact of a disaster calls for an emergency management partner with the resources to mobilize a swift, efficient response in hours, not days. As depicted in Exhibit A-4, **Tetra Tech's national network of resources includes seven offices throughout Texas with over 200 staff.** The Tetra Tech team can utilize these office locations as necessary to immediately respond to the City's need for personnel and resources. These local offices may be used for office space, on-site IT personnel, communication resources, or staging of mobile trailers and equipment if necessary.

Exhibit A-4: Texas Office Locations



PROJECT STAFF QUALIFICATIONS

Tetra Tech has assembled a team of experienced debris monitoring, 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 Federal Emergency Management Agency (FEMA), Federal Highway Administration (FHWA), U.S. Department of Housing and Urban Development (HUD), Natural Resources Conservation Service (NRCS), and other federal agency reimbursement programs.

Our project team provided services to the City following Hurricane Ike in 2008. Tetra Tech stands ready to assist the City with its any future debris monitoring projects.

Our staff members have successfully managed the removal of and reimbursement for over **77 million CYs of debris** as well as the **demolition of over 5,000 uninhabitable residential and commercial structures**. Our team has monitored and obtained FEMA, FHWA, and NRCS reimbursement on **16 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.

Tab A: Qualifications

Our staff has experience in maximizing assistance to our clients by working to obtain funding from every source available after disaster has struck. As a result of working on response to nearly every major natural disaster occurring in the United States in the last dozen years, Tetra Tech also has broad and deep experience with strategic planning, coordination of recovery efforts, and technical assistance. Tetra Tech will offer recommendations and solutions to the broad range of issues that will be encountered by the City.

Throughout the course of the hundreds of debris management and grant management projects that our staff has administered for state and local governments across the United States, our team has developed a unique understanding of the FEMA organization and other regulatory agencies' policies and procedures. Our team maintains strong relationships with many of the lead federal coordinating officers, debris specialists, Public Assistance (PA) coordinators and officers, and other staff. Our team also understands the duties and responsibilities of emergency management personnel at the state and local level, which helps us build strong relationships. Our team has worked with hundreds of local government emergency management agencies and dozens of state emergency management organizations following catastrophic natural disasters.

Tetra Tech has served over 300 state and local government clients in response to over 50 declared presidential disasters with over \$4 billion in disaster grants obtained, managed, and/or recovered on our clients' behalf.

Additionally, Tetra Tech is recognized for its ability to quickly and effectively respond to disaster management projects. Following many of the nation's worst disasters, the Tetra Tech team mobilized hundreds, and in some cases, thousands of staff across the nation. In many cases, Tetra Tech has responded to its clients within 24 hours of receiving notice-to-proceed and fully staffed projects within seven days. ***We are committed to providing the City with a dedicated and consistent project management team that will expedite recovery efforts by establishing a coordinated and organized approach to debris removal.*** Our dedicated team is available to the City 365 days per year.

Professional Certifications, Training, and Licensing

Tetra Tech is committed to providing our customers with quality technical products and services while meeting the highest level of ethical and regulatory standards and performance in our jobs. In addition, our environmental health and safety 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.

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 many of the key certifications necessary to provide quality technical services and have attended numerous training courses related to debris operations and emergency management. Some of these include, but are not limited to:

- Occupational Safety and Health Administration (OSHA) Disaster Site Worker Course
- OSHA 10-Hour Construction Safety Certification
- OSHA 40-Hour HAZWOPER Certification

Tab A: Qualifications

- G-202 Debris Management
- Homeland Security Exercise and Evaluation Program (HSEEP)
- IS 100: Introduction to Incident Command System
- IS-120: Introduction to Exercises
- IS-200: Basic Incident Command
- 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
- Mass Casualty Incident Manager Certification

Additionally, all collection and disposal managers and field supervisors must attend a debris monitoring training session prior to working. 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.

Proposed Staff

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.

- **Mr. Jonathan Burgiel** has 31 years of experience in solid waste and disaster recovery. His disaster-related work has included serving as principal in charge of over 30 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 various communities following Hurricane Matthew, Richland County, South Carolina (Historic 1,000 Flooding Event), the 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); Harris County, TX (Hurricane Ike); and Miami-Dade County (Hurricanes Katrina and Wilma), to name a few.
- **Mr. Ralph Natale** has overseen response to some of the country's largest debris-generating disasters. He is an expert in FEMA Public Assistance (PA) Grant Program reimbursement policies and has administered nearly 70 projects in his 10-year career. This includes managing and documenting the removal of over 16 million CYs of debris and 895,000 hazardous trees totaling over \$470 million dollars of reimbursed invoices. He has served as a debris specialist and grant consultant for state and local governments, including for the State of Connecticut Emergency Operations Debris Task Force following Hurricane Irene and Winter Storm Alfred and the City of New Orleans, Louisiana, following Hurricane Isaac. He currently serves as principal in charge for several of the firm's response efforts in California following the devastating fires and for dozens of communities following Hurricane Matthew.

Tab A: Qualifications

- **Mr. Oliver Yao** has over 10 years of disaster recovery experience and has supported response efforts to some of the largest disasters to affect the United States, including Hurricanes Katrina, Ike, and Sandy. Mr. Yao is currently responsible for the operational oversight of field projects, which includes ADMS implementation, logistics management, safety protocols, and senior management of data and reimbursement support. Mr. Yao has developed a team of seasoned data managers trained on the standard operating procedures he has developed to support project closeout and audit. Mr. Yao is a leading subject matter expert in reimbursement documentation and closeout audit support. In addition, Mr. Yao has assisted numerous local governments in Florida with FEMA appeals following Hurricanes Charley, Frances, Jeanne, and Wilma.
- **Mr. John Buri** is a versatile emergency management, disaster mitigation, response and recovery, and grant management professional with 14 years of experience. Mr. Buri has provided senior management oversight on 16 major disasters declarations for over 100 clients since 2007, representing over \$1 billion in disaster-related grants. He has responded to numerous large-scale activations and engages with FEMA and state regulatory agencies and debris contractors in addition to providing FEMA PA consulting for all tasks and activities associated with each disaster recovery operation.
- **Mr. Dick Hainje** serves as a senior advisor and the former administrator of FEMA Region VII, where he led the region through 60 presidentially declared disasters. Mr. Hainje was the director of operations for Hurricane Charley and was responsible for the entire Florida operations division, which at the time was the largest deployment in FEMA's history. His extensive experience working with senior first responders as well as local, state, and federal elected officials during times of crisis has included providing full briefings to the president of the United States five times at the scene of major disaster operations. He was responsible for creating a long-term community recovery process for FEMA Region VII, which provides heavily impacted communities the opportunity to go through a FEMA-sponsored planning process after a catastrophic incident. Following Hurricane Katrina in 2005, Mr. Hainje was asked by Secretary Chertoff to serve as the deputy Principal Federal Official for the Mid-Atlantic States, where he was involved with every aspect of preparation for all of the states from Georgia to Delaware, including leading major hurricane preparation exercises in FEMA Region IV and FEMA Region III.

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.***

- **Mark Dygert, Project Manager** – Mr. Dygert is an experienced professional providing program management services for hazard mitigation emergency preparedness/planning response and recovery. He has managed projects in Texas, Louisiana, Georgia, South Carolina, and New Jersey, where he was responsible for implementing schedules for the contractor and providing client support for FEMA and FHWA regulations and procedures.
As project manager, Mr. Dygert will be responsible for implementation of the specific programs tasked by the City through purchase orders. He is also responsible for program oversight, task order preparation, forecasting, and quality assurance.
- **James Ward, Operations Manager** – Mr. Ward is an experienced professional providing program management services for hazard mitigation emergency preparedness/planning

Tab A: Qualifications

response and recovery. He has supported projects in Texas, Louisiana, South Carolina, and South Dakota, where he was responsible for implementing schedules for the contractor and providing client support for FEMA regulations and procedures.

- As operations manager, Mr. Ward will be responsible for the implementation of Tetra Tech's work plans, dispatching field personnel, staffing, safety, field logistics, and training. He will verify eligibility, compliance, and collection and disposal operations oversight and coordinate directly with our project manager daily with progress reports and on specific issues.
- **Owen Chen, Data Manager** – Mr. Chen is an experienced quality control and data manager for Tetra Tech. His areas of expertise are in geographic information systems, documentation management, quality assurance/quality control (QA/QC), database management, and reporting. He also has an in-depth understanding of FEMA eligibility, documentation requirements, and our ADMS.

As data manager, Mr. Chen will be responsible for multiple functions during debris removal activities, including reporting and quality assurance/quality control of all ADMS documentation in the field along with storing the documentation in preparation for future audits. He will validate documentation and metrics being reported as accurate and on-schedule.

- **Mr. Jeff Dickerson, Automated Ticket Specialist/GIS Analyst** – Mr. Dickerson has more than 20 years of experience in program management and information technology and is the principal system architect of our ADMS, RecoveryTrac™. Mr. Dickerson has managed numerous large disaster response operations with over 1,000 field monitors, coordinated the operation of 24-hour data processing centers (some with nearly 100 personnel), and provided technical support for a debris management database to track over 1,000 trucks and the documentation for over 5 million CYs of debris brought to clients' TDSR locations. Mr. Dickerson has led deployment and logistics efforts for some of the firm's largest debris monitoring efforts. Most recently, he oversaw the deployment of over 900 field units to over 35 clients following Hurricane Matthew.

As GIS specialist, Mr. Dickerson may be called on to produce maps or overlays as a quality control function of our data manager or project manager as custom reports are requested by the Town. This may also include field audits or analysis of disposal data as needed.

- **Paris Atkinson, Billing and Invoice Analyst** – Ms. Atkinson is a senior data manager and billing/invoice analyst, where her responsibilities include data management, management of monitoring documentation for the FEMA, invoice reconciliation, and the use of our ADMS. She has extensive experience on all aspects of program data management, including project closeout and post-closeout audit support. Ms. Atkinson possesses knowledge and understanding of federal grant programs, including the FHWA Emergency Relief (ER) Program and the FEMA PA Program.

As billing and invoice analyst, Ms. Atkinson will work with our data manager to enter, tabulate, and organize collection and disposal data into FEMA-required formats. She will develop regular updates on the quantities and types of debris collected and will provide quality assurance and quality control processes for the review and verification of field and debris contractor-provided data in support of invoices.

- **Chris Burns, Environmental Specialist** – Mr. Burns has 15 years of experience in the environmental field. Mr. Burns has responded to over 400 oil spills, conducting responses to oil spills, complaints, fish kills, and a multitude of site assessments. His experience includes responses to small releases from aboveground home heating oil tanks to larger releases from underground storage tanks and pipelines that have affected surface water, groundwater, and soil. Mr. Burns is currently the Emergency Response Coordinator and Deputy Program

Tab A: Qualifications

Manager for the US EPA Region 5 START Contract. He is trained in the operation and maintenance of field equipment for use in emergency response operations. He is also experienced in the collection of asbestos samples and is versed in the 2009 asbestos framework for collection asbestos samples, and currently manages 5 asbestos sites for Tetra Tech.

As environmental specialist, Mr. Burns has responsibility for environmental permitting, the recommendation and selection of TDSRS locations, and related issues. He reports to the project manager and works closely with City's Solid Waste staff to address and resolve environmentally sensitive issues.

Exhibit A-5 shows our proposed project team organizational structure. *Résumés have been included at the end of this section.*

Exhibit A-5: Project Team Organizational Chart



Tab A: Qualifications

Résumés

EXPERIENCE SUMMARY

As Vice President, 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 30 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:

- Multiple communities in South and North Carolina – Hurricane Matthew
- Richland County & Lexington County, South Carolina - South Carolina 1,000-year Flooding Event - Comprehensive Disaster Recovery Services
- Hays County/City of Wimberley, Texas – Severe Flooding Disaster Recovery Assistance
- New Jersey Department of Environmental Protection (NJDEP) – Hurricane Sandy Disaster Vessel Recovery Program
- State of Connecticut – Hurricane Sandy Disaster Debris Program
- State of Louisiana – Hurricane Isaac Disaster Debris Program Management
- City of New Orleans, Louisiana – Hurricane Katrina Residential Demolitions
- Bastrop County, Texas – Wildfires
- City of Cedar Rapids, Iowa – Severe Flooding
- Monroe County – Hurricanes Katrina and Wilma

EDUCATION

University of Central Florida
Master of Business
Administration, 1989

Tufts University
Bachelor of Arts, Economics,
1984

AREA OF EXPERTISE

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

GRANT EXPERIENCE

- FEMA PA
- CDBG-DR
- HMGP

DISASTERS

- 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 Tornadoes
- 1606 Hurricane Rita
- 1609 Hurricane Wilma
- 1602 Hurricane Katrina
- 1595 Hurricane Dennis
- 1561 Hurricane Jeanne
- 1551 Hurricane Ivan
- 1545 Hurricane Frances
- 1539 Hurricane Charley

YEARS OF EXPERIENCE

30+ years

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

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

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

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

Hays County/City of Wimberley Texas | Post-Disaster Flood Support Services

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

Senior Management (April 2012–May 2013)

State of Vermont | Federal Grant Management Services

Following Hurricane Irene, the State of Vermont faced the daunting task of maintaining critical operations. Under Mr. Burgiel’s direction, within 48 hours our team deployed a team of experts to the state emergency operations center (EOC). Mr. Burgiel and our grant management team provided consulting services and managed the recovery process. Our team collected, reviewed, and offered technical assistance to applicants on their Hazard Mitigation Grant Program (HMGP) applications.

Senior Management (September 2008–January 2009)

Harris County, Texas | Hurricane Ike Disaster Debris Program Management

In 2008, Hurricane Ike made landfall in Texas, causing extensive damage to Harris County, the fourth largest county in the United States. Mr. Burgiel rode out the storm in Harris County’s EOC and assisted with the deployment of our response team following the storm. Our team assisted with monitoring and cost reimbursement for over 2.5 million cubic yards of debris from the public right-of-way (ROW) in response to Hurricane Ike.

Senior Management (February–April 2007)

Volusia County, Florida | Groundhog Day Tornado Disaster Recovery and Storm Debris Removal

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

EXPERIENCE SUMMARY

Mr. Ralph Natale is the director of post-disaster programs for Tetra Tech, Inc. He leads the practice by developing programs, providing daily project support, and providing oversight and guidance to his team of project managers and projects. Mr. Natale is an expert in Federal Emergency Management Agency-Public Assistance (FEMA-PA) Grant Program reimbursement policies and has administered nearly 70 projects in his 11 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 Katrina, Ike and Sandy. This includes managing and documenting the removal of over 16 million cubic yards (CYs) of debris and 895,000 hazardous trees totaling over \$470 million dollars of reimbursed invoices.

FEATURED EXPERIENCE

Subject Matter Expert (Debris Documentation, Program Management, Grant Management)

Mr. Natale has served as a debris documentation specialist and grant consultant for state and local governments during his extensive career in disaster debris industry. This includes serving as a current member of the State of Connecticut Emergency Operations Debris Task Force, where he was activated during the recovery operations following Hurricane Irene and Winter Storm Alfred.

Mr. Natale has served as a senior consultant and subject matter expert on the following projects:

- Lake County, California | Valley and Butte Fire (September 2015–Present)
- City of Houston, Texas | Hurricane Ike, severe droughts, ,may 2015 floods (June 2009–Present)
- State of Connecticut | Interagency Debris Management Task Force (August 2010–Present)
- City of New Orleans, Louisiana | Hurricane Isaac (September–December 2012)
- Texas Department of Transportation | Federal Highway Administration-Emergency Relief Statewide Training (January–July 2010)
- Connecticut Department of Transportation | Winter Storm Alfred (October 2011–July 2012)
- Boulder County, Colorado | 2013 Floods (October 2013 –2015)

YEARS OF EXPERIENCE

11 Years

AREA OF EXPERTISE

- Program Development
- Documentation Management
- Private Property Debris Removal Programs
- Debris Removal Planning
- Debris Removal Monitoring
- Packet Management
- Geospatial Reporting

GRANT EXPERIENCE

- FEMA PA
- NRCS EWP
- FHWA ER

DISASTERS

- 4240 Valley and Butte Fire
- 4245 TX Severe Storms
- 4145 CO Flooding
- 4087 Hurricane Sandy
- 4084 Hurricane Isaac
- 4029 TX Wildfires
- 4024 Hurricane Irene
- 4106 CT Snow Storm
- 3268 NY Snowstorm
- 1971 AL Tornadoes
- 1791 Hurricane Ike
- 1786 Hurricane Gustav
- 1780 Hurricane Dolly
- 1763 IA Flooding
- 1609 Hurricane Wilma
- 1602 Hurricane Katrina

TRAINING/CERTIFICATIONS

- OSHA 40-Hour Asbestos Training
- IS-632: Debris Operations
- HSEEP-Certified
- OSHA Asbestos Health and Safety
- IS-30: Mitigation Grants System
- IS-100, 200, and 700: ICS and NIMS
- IS-630: Intro to the PA Process
- IS-631: PA Operations

Principal in Charge/Senior Program Manager

As director of post-disaster programs for Tetra Tech, Mr. Natale has focused on developing and improving program management processes. These processes ensure the most efficient methods of managing debris removal programs to maximize federal reimbursement via the FEMA 325, and 327 guidelines. As a senior program manager, Mr. Natale ensures quality control and quality assurance of project managers' deliverables on all Tetra Tech projects, including:

Mr. Natale has provides senior management on the following projects:

- California | Valley and Butte Fire (October 2015–Present)
- State of New Jersey | Hurricane Sandy Disaster Recovery Operations (October 2012–January 2013)
- State of Connecticut | Hurricane Sandy Statewide Debris Monitoring Operations (October–December 2012)
- State of Connecticut | Winter Storm Alfred Statewide Debris Monitoring Operations (October 2011–April 2012)
- City of New Orleans, Louisiana | Hurricane Katrina Residential Demolitions (April 2010–Present)
- Bastrop County, Texas | Wildfires (September 2011–August 2013)
- City of Cedar Rapids, Iowa | Severe Flooding (May 2010–June 2011)
- University of Iowa | 2008 Severe Flooding (March 2012–Present)
- City of Houston, Texas | Standing Dead Trees (May 2010–June 2011)
- Terrebonne Parish, Louisiana | Hurricane Ike (July 2010–February 2011)
- State of Connecticut Hurricane Irene (September 2011–November 2011)

Project Management

On large debris projects, Mr. Natale will be temporally relieved of his director duties by senior management support and focus on the management of a single project. As a result, Mr. Natale has managed some of the largest debris-generating projects in the country with great success.

Mr. Natale has served as a project manager or operations manager on the following projects:

- City of Houston, Texas | Memorial Day Floods (May–August 2015)
- New Jersey Department of Environmental Protection (NJDEP) | Hurricane Sandy Waterway Debris Removal Project (February 2013–January 2014)
- Connecticut Department of Transportation | Winter Storm Alfred Statewide Response (October 2011–April 2012)
- City of Houston, Texas | Hurricane Ike Disaster Debris Program Management (October 2008–July 2010)
- Winter Storm Pax | Augusta-Richmond County 2014
- Hurricane Gustav | Iberville Parish, Louisiana, 2008
- Hurricane Gustav | City of Central, Louisiana, 2008
- Hurricane Dolly | Hidalgo County, Texas, 2008
- Winter Storms | Town of North Tonawanda, New York, 2007
- Hurricane Wilma | Collier County, Florida, 2006
- Hurricane Wilma | Naples Airport, Florida, 2005
- Hurricane Wilma | City of Naples, Florida, 2005

EXPERIENCE SUMMARY

Mr. Oliver Yao serves as the deputy director of post disaster programs for Tetra Tech, Inc. Mr. Yao has over nine years of industry experience in emergency management, response, and recovery. Mr. Yao is responsible for managing project staffing, financials, operations, and safety of the practice. In addition, Mr. Yao is also responsible for the firm's data management and documentation operations, including project oversight, project reporting, contractor invoice reconciliation, and project closeout and audit support. 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, including the Federal Highway Administration (FHWA) Emergency Relief (ER) Program and Federal Emergency Management Agency (FEMA) Public Assistance (PA) Program. This knowledge and experience has 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 has 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). Mr. Yao also has extensive experience assisting Florida communities with debris management services. He was part of the project team that helped develop the first Florida FEMA-approved DDMP for Escambia County.

RELEVANT EXPERIENCE

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 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 Texas projects. He

YEARS OF EXPERIENCE

10 Years

AREA OF EXPERTISE

- FEMA Reimbursement and Audit Support
- Reimbursement Policies and Procedures
- Disaster Debris Management
- Health and Safety
- Data Management
- FEMA-Compliant Disaster Planning
- RecoveryTrac™ ADMS

GRANT EXPERIENCE

- FEMA PA
- FHWA ER

DISASTERS

- 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

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.

Mr. Yao has also served as senior management and data oversight/manager on the following projects:

- Blount County; Limestone County, Alabama | Severe Storms and Tornadoes Disaster Debris Program Management (May 2014–August 2014)
- Boulder County, Colorado | Severe Flooding Disaster Debris Program Management (March 2014–October 2014)
- South Carolina | Winter Storm Pax Disaster Debris Program Management (February 2014–June 2014)
- New Jersey Department of Environmental Protection | Hurricane Sandy Waterways Debris Removal Program Management (February 2013–January 2014)
- City of Rapid City, South Dakota | Winter Storm Atlas Debris Program Management (October 2013–December 2013)
- City of Sioux Falls, South Dakota | Severe Winter Storm Debris Program Management (April 2013–August 2013)
- Bastrop County, Texas | Wildfire Disaster Program Management (September 2011–August 2013)
- Borough of Sayreville, New Jersey | Hurricane Sandy Disaster Debris Program Management (November 2012–January 2013)
- State of Connecticut | Hurricane Sandy Disaster Debris Program Management (October 2012–December 2012)
- City of New Orleans, Jefferson Parish, and St. John the Baptist Parish, Louisiana | Hurricane Isaac Debris Program Management (August 2012–December 2012)
- Henrico County, Virginia | Hurricane Irene Disaster Debris Program Management (August–December 2011)
- Dare County, North Carolina | Hurricane Irene Debris Management Services (August–December 2011)
- City of New Orleans, Louisiana | Hurricane Katrina Residential Demolition Program (April 2011–Ongoing)
- City of Houston, Texas | Hurricane Ike Disaster Debris Program Management (September 2008–September 2011)
- City of Galveston, Texas | Hurricane Ike Disaster Debris Program Management (September 2008–September 2010)
- Harris County, Texas | Hurricane Ike Disaster Debris Program Management (September 2008–October 2009)

Debris Management Consultant (April 2015–June 2015)

Sarasota County, Florida | Pre-Event Disaster Planning Services

Mr. Yao served as a debris management subject matter expert and assisted Sarasota County, Florida with the development of their scope of services for disaster debris removal services. As part of the County project team, Mr. Yao also assisted in responding to vendor questions and developing an analysis of vendor rates.

EXPERIENCE SUMMARY

Mr. John Buri is a director of post-disaster programs for Tetra Tech, Inc., and a member of our senior management team. His experience over the past 15 years includes emergency management planning, disaster mitigation, response, and recovery consulting on behalf of cities, counties, regional planning councils, and state governments. Mr. Buri has performed a role of senior management oversight manager on 22 major disasters declarations for over 100 clients since 2008 representing, over \$2.5 billion in disaster related grants. Mr. Buri has a thorough understanding and practical application of industry best practices and federal guidance governing such efforts including the Federal Emergency Management Agency (FEMA) Public Assistance (PA) Program, 2 CFR 200, Hazard Mitigation Grant Program (HMGP) and disaster funding strategies for local and state governments. Mr. Buri is also part of our Incident Management Team (IMT) dedicated to responding to our standby clients as part of the team deployed to the impacted region prior to or immediately after a disaster.

Mr. Buri is a vital member of the senior management team and is actively involved in the interaction with multiple clients in every activation, including being present in the client's emergency operations center (EOC) within 24-48 hours after each incident. He has responded to numerous large-scale activations and engages with FEMA and state regulatory agencies and debris contractors; in addition to, providing FEMA PA consulting for all tasks and activities associated with each disaster recovery operation.

FEATURED EXPERIENCE

Subject Matter Expert/Senior Management Oversight (October 2015-Ongoing)

Richland County, South Carolina | Public Assistance Consulting

Mr. Buri has been an integral part of Tetra Tech's Richland County disaster recovery team assisting the Project Manager and consultants with obtain data, policy interpretation and general grant consulting. Mr. Buri has focused his time assisting with navigating the on-going challenges associated with dam reconstruction, road damage restoration and long term recovery.

Program Manager (May 2015 – On-Going)

Hays County, Texas | Full Services Disaster Grant Management Consulting and Debris Management | May 2015 (DR 4223) and October 2015 Floods (DR-4245)

Mr. Buri is currently leading the Tetra Tech team supporting Hays County following two (2) major disaster declarations in 2015 including

YEARS OF EXPERIENCE

15 Years

AREA OF EXPERTISE

- Damage Assessment
- Policy and Procurement
- Debris Management
- Disaster Housing
- Grant Application Development
- Grant Accounting Systems
- Audit Process
- Closeout Procedures

GRANT EXPERIENCE

- FHWA-ER Program
- HUD CDBG-DR
- FEMA PA
- FEMA 404 HMGP
- FEMA HMA

DISASTERS

- 4245 TX Flood
- 4241 SC Flood
- 4240 CA Wildfire
- 4223 TX Flood
- 4222 OK Flood
- 4193 Napa Earthquake
- 4166 SC Winter Storm
- 4165 GA Winter Storm
- 4145 Colorado Floods
- 4087 Hurricane Sandy
- 4084 Hurricane Isaac
- 4029 TX Wildfires
- 4024 Hurricane Irene
- 4022 Tropical Storm Irene
- 4106 CT Winter Storm
- 4064 OK Tornado
- 1969 NC Tornadoes

EDUCATION

Texas State University
Master of Arts, Public
Administration, 2002

The University of Texas
Bachelor of Arts, Government,
2000

the May Memorial Day Flood and October All-Saints Day Flood that . This includes providing technical assistance to County leadership regarding FEMA PA, HMGP and CDBG-DR grant programs. In addition, Mr. Buri has been instrumental in helping the County attain a Private Property Debris Removal (PPDR) program approval and disaster declaration for the October 2015 floods.

Subject Matter Expert/Senior Management Oversight (October 2013-Ongoing)

Boulder County, Colorado | Full Services Disaster Grant Management Consulting

Mr. Buri is currently providing subject matter expertise and senior management to Boulder County, Colorado, following the devastating floods that occurred in September 2013. Mr. Buri is providing PA consulting, managing the County's HMGP, and assisting the County with Community Development Block Grant (CDBG) Disaster Recovery (DR) application support. In addition, he is also providing overall management on all debris recovery operational issues for the County.

Senior Management Oversight (February 2014-May 2014)

Counties of Barnwell; Colleton; Dorchester; Hampton; Sumter, South Carolina; City of Sumter, South Carolina; City of Augusta, Georgia | Winter Storm Pax Debris Program Management

Following the destructive effects of Winter Storm Pax in February 2014, our team was tasked with providing disaster debris program management to numerous communities in the States of South Carolina and Georgia. Mr. Buri was instrumental in the immediate deployment of our team and is currently overseeing all disaster recovery operations, including leaner and hanger removal. In addition, Mr. Buri is currently working with each community to ensure that all eligible reimbursement is captured and documented.

Subject Matter Expert/Senior Management Oversight (February 2013-January 2014)

New Jersey Department of Environmental Protection | Hurricane Sandy Waterway Debris Removal Project

Mr. Buri provided subject matter expertise in the development and implementation of numerous protocols and procedures to effectively manage the New Jersey Department of Environmental Protection's (NJDEP) waterways debris removal program. Mr. Buri oversaw the implementation of our automated debris management system (ADMS) technology, which increased NJDEP's visibility to the day-to-day operations and provided real-time reporting of debris quantities. Due to the excellent senior and project management provided by our team, NJDEP then tasked our team with monitoring the sediment removal process in the northern and southern region.

Mr. Buri has also served in senior management oversight on the following projects:

- New Jersey Department of Environmental Protection – Liberty State Park | Hurricane Sandy FEMA PA Program Management (March 2013-January 2014)
- City of New Orleans, Jefferson Parish, St. John the Baptist Parish, Louisiana | Hurricane Isaac Disaster Debris Program Management (September 2012-December 2012)
- Bastrop County, Texas | Wildfire Disaster Program Management (September 2011–August 2013)
- State of Vermont | Hurricane Irene FEMA HMGP Application, Administration, and Implementation (January 2012-October 2013)

Regional Program Manager (September 2008–September 2010)

State of Texas – 78 Total Clients | Hurricane Ike Comprehensive Debris Management Operations and FEMA PA Administration and Management

Following Hurricane Ike, Mr. Buri served as regional program manager and provided senior management for approximately 78 clients in the state of Texas. Mr. Buri was instrumental in the immediate mobilization of our team and provided a full range of services and client support to each client. Mr. Buri also provided management and guidance to each client to ensure they received FEMA reimbursement.



EXPERIENCE SUMMARY

Mr. Jeffrey Dickerson has more than 20 years of experience in program management, with extensive experience in technical organizational management, training, and readiness exercises. He is a 20+ year military veteran with skills in leadership, training, and personnel development. Mr. Dickerson is very experienced in disaster response field and data operations along with the application of advance technology to improve efficiency. He recently spoke at the National Hurricane Conference on the use and application of technology to improve disaster response cost efficiency. Mr. Dickerson has managed numerous large disaster activities with over 1,000 field monitors, coordinated the operation of a round-the-clock data processing centers—some with over 90 personnel, and provided technical support for a debris management database to track the over 1,000 trucks and documentation for over 5 million cubic yards of debris brought to the client's debris management sites (DMS).

Mr. Dickerson has led the development and support of our automated debris management system (ADMS), RecoveryTrac™. RecoveryTrac™ is a certified U.S. Army Corp of Engineers (USACE)-compliant suite of applications and mobile tools designed to simplify the collection of field documentation and increase the overall efficiency of monitoring debris removal efforts. *He designed and developed the industry- leading RecoveryTrac™ GIS*, which provides best in class reporting and analysis tools along with GIS web service based data feeds enabling direct integration into client GIS and emergency management systems.

RELEVANT EXPERIENCE

Project Manager (August 2016–Present)

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.

YEARS OF EXPERIENCE

20 Years

AREA OF EXPERTISE

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

DISASTERS

- 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

TRAINING/CERTIFICATIONS

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

EDUCATION

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

GIS/ADMS Applications Manager (October 2015–August 2016)

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

Mr. Dickerson managed the development and deployment of customized GIS-enabled ADMS technology to automate a private and commercial property hazard removal and demolition program, including environmental remediation sampling. Over 4,000 hazardous tree were removed and 1,000 structures were demolished generating nearly 100,000 cubic yards of mixed debris. Advanced GIS mapping, document, and data analysis portals were used extensively to document California environmental requirements.

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 Field Application Manager (November 2014–May 2015)

City of New Orleans, LA | Hurricanes Katrina Demolition Phase II Program Management

Mr. Dickerson developed and deployed mobile field GIS technology to automate the private property demolition survey and documentation. Custom GIS base workflow automation provided custom form generation from collected field data. Phase II included the survey and demolition of over 375 structures.

ADMS Application Manager (October 2013–December 2013)

State of New Jersey Department Environmental Protection | Hurricane Sandy Disaster Debris Program Management

Mr. Dickerson managed the logistics and deployment of ADMS technology, including over 45 handheld devices for waterway debris and sediment removal for two-thirds of New Jersey's coastline. The RecoveyTrac™ work documentation module was heavily used to document the step-by-step progress. Over 58,000 photos documenting the collection and disposal of the debris and sediment were recorded.

ADMS Application Manager (August 2012–July 2013)

St. John the Baptist Parish, Louisiana | Hurricane Isaac Disaster Debris Program Management

Mr. Dickerson managed the logistics and deployment of ADMS technology, including over 120 handhelds units used by the Parish to expedite the recovery process collecting over 225,000 cubic yards of debris. Detailed pickup locations and damage reports were used extensively to keep community leaders informed of progress.

ADMS Application Manager (September 2011–June 2013)

City of Houston, Texas | Drought & Wildfires Debris Removal Monitoring

Mr. Dickerson managed the multi-year logistics and deployment of ADMS technology, including over 25 handheld devices in a multi-phased removal of thousands of trees following a severe drought documenting over 260,000 cubic yards of debris. His responsibilities include the deployment, support, and staff training of the ADMS mobile system and development of custom mapping and reports.

EXPERIENCE SUMMARY

Mr. Hainje has spent his entire career in emergency management and has been involved in the deployment of almost every disaster over the last 30 years, including hurricanes, tornados, snow storms, and floods. He maintains strong relationships with state and federal partners, serves in a very critical role where he is involved in every stage of the disaster recovery process with every client, and has a deep passion for working with and assisting government entities with Federal Emergency Management Agency (FEMA) guidelines and federal funding. As a member of Tetra Tech's Incident Management Team (IMT), Mr. Hainje is dedicated to responding to our stand-by clients as part of the team deployed to the impacted region and focuses on providing senior management oversight to clients prior to or immediately after a disaster. His extensive experience working with senior first responders as well as local, state, and federal elected officials during times of crisis has included providing full briefings to the president of the United States five times at the scene of major disaster operations.

As former regional administrator of FEMA Region VII for eight years, Mr. Hainje was responsible for the preparedness, response, recovery, and mitigation of all disasters in Kansas, Iowa, Nebraska, and Missouri, and led the region through 60 presidentially declared disasters. Over the last 10 years, Mr. Hainje has supervised major emergency operations in Connecticut, Florida, Mississippi, Missouri, Iowa, Nebraska, and Kansas.

Mr. Hainje was the director of operations for Hurricane Charley, which struck Florida in 2004. He was responsible for the entire Florida operations division, which at the time was the largest deployment in FEMA's history. Following the four hurricanes that struck Florida, Mr. Hainje served as director of emergency housing, which was the largest emergency housing operation in more than a decade.

Due to the devastating effects of Hurricane Katrina in 2005, Secretary Chertoff chose principal federal official (PFO) teams for the 2006 hurricane season. Mr. Hainje was asked by Secretary Chertoff to serve as the deputy Principal Federal Official for the Mid-Atlantic States. Mr. Hainje was involved with every aspect of preparation for all of the states from Georgia to Delaware. Mr. Hainje also led the response, recovery, and mitigation for the historic 2008 Midwest flooding event. At the peak, Mr. Hainje was in charge of over 1,000 FEMA employees deployed to this event, briefed the Midwest governors and the president of the United States, as well as many U.S. senators and congresspersons.

EDUCATION

Mid American Nazarene University
Bachelor of Arts, Management and
Human Relations, 2008

Killian College
Associate of Science, Fire Science,
1994

AREA OF EXPERTISE

- Policy/Government Affairs
- Local, State, and Federal Disaster Response and Recovery Funding
- Post-Disaster Emergency Housing
- Grant Writing, Administration, and Implementation
- Regional Response
- Commodity Distribution
- Homeland Security
- Emergency Management and Response

GRANT EXPERIENCE

- FEMA Public Assistance
- Hazard Mitigation Grant Program
- Community Development Block Grant Program

TRAINING/CERTIFICATIONS

- Incident Command System
- Extensive Chief Fire Officer National Fire Academy Course Work
- Former Emergency Medical Technician

YEARS OF EXPERIENCE

30 years

Mr. Hainje is an essential member of Tetra Tech's senior management team and is actively involved in the interaction with every client following every activation, including being present in Joint Field Office (JFO) and engaging with officers to understand the nature of every disaster.

RELEVANT EXPERIENCE

Senior Technical Advisor (October 2013-December 2014)

Boulder County, Colorado | Full Services Disaster Grant Management Consulting

Mr. Hainje is currently serving as senior technical advisor to Boulder County, Colorado, following the devastating floods that occurred in September 2013.

Principal in Charge (August 2010 – March 2013)

State of South Dakota | FEMA PA Closeout Services

As principal in charge, Mr. Hainje oversaw the PA closeout contract, which involved closing out over 200 project worksheets related to public utilities.

Principal in Charge (July 2010 – September 2013)

Port of Galveston, Texas | Federal Grant Administration

Mr. Hainje is assisting the Port of Galveston on a number of reimbursement-related issues. With Mr. Hainje's assistance, the Port of Galveston has received more than \$40 million in additional federal funding associated with permanent repairs to several of the port's piers following damage from Hurricane Ike in 2008.

Senior Advisor (January – September 2011)

Texas Department of Transportation | Comprehensive FEMA PA and Federal Highway Administration

Mr. Hainje worked with the Texas Department of Transportation (TxDOT) and FEMA to resolve a number of outstanding projects, allowing TxDOT to receive millions in eligible funding.

Senior Management Oversight (February 2013-January 2014)

New Jersey Department of Environmental Protection | Hurricane Sandy Waterway Debris Removal Project

Mr. Hainje was a member of the our staff's IMT for the New Jersey Department of Environmental Protection following Hurricane Sandy, where he met with FEMA officials and state coordinating officers.

Senior Debris Consultant and Advisor (October 2012-December 2012)

State of Connecticut | Hurricanes Irene and Sandy, Winter Storm Alfred Disaster Debris Program Management

Mr. Hainje has assisted the State of Connecticut with debris management as a member of the Interagency Debris Management Task Force (IDMTF) at the state emergency operations center (EOC) for Hurricane Irene, Winter Storm Alfred, and Hurricane Sandy. He worked closely every day with members from Connecticut Division of Emergency Management and Homeland Security, the Connecticut National Guard, Department of Energy and Environmental Protection, and Connecticut Department of Transportation. This involved advising the State of Connecticut on all debris-related issues during response and recovery from the storms. Mr. Hainje was in the EOC working with the IDMTF prior to landfall for Hurricane Irene and Hurricane Sandy.

EXPERIENCE SUMMARY

Mr. Mark Dygert is an experienced professional providing program management services for hazard mitigation emergency preparedness/planning response and recovery. He has managed projects in that states of Texas, Louisiana, Georgia, South Carolina, and New Jersey, where he was responsible for implementing schedules for the contractor and providing client support for Federal Emergency Management Agency (FEMA) and Federal Highway Administration (FHWA) regulations and procedures.

FEATURED RELEVANT EXPERIENCE

Automated Debris Management System (ADMS) Specialist (May 2015–August 2015)

City of Houston, Texas | Severe Storms and Flooding Disaster Debris Program Management

Mr. Dygert was deployed as an ADMS operations manager for the City of Houston following severe storms and flooding that resulted in concentrated volumes of disaster debris in the City. Mr. Dygert assisted in the logistics and technical support of 130 ADMS units used by locally trained monitors to document the collection of over 300,000 CYs of debris. Tetra Tech takes great pride in its ability to support an activation with ADMS services designed to maximize production, and employees like Mr. Dygert are the reason for our success. Mr. Dygert also assisted with daily eligibility oversight and managed the truck certifications of over 300 units.

Deputy Project Manager (March 2014–April 2014)

Barnwell County, South Carolina | Winter Storm Pax Disaster Debris Program Management

Mr. Dygert served as project manager for Barnwell County, South Carolina, following Winter Storm Pax. Mr. Dygert successfully hired and trained approximately 60 field monitors and managed the documentation-intensive process of removing eligible hanging limbs from County roadways. Mr. Dygert was crucial in providing consultation to County officials, establishing reporting protocols and facilitation meetings between FEMA, County representatives, and the County's debris haulers.

Operations Manager (February 2014–April 2014)

City of Augusta, Georgia | Winter Storm Pax Disaster Debris Program Management

Mr. Dygert served as operations manager for the City of Augusta, Georgia, following Winter Storm Pax, where he managed the overall

YEARS OF EXPERIENCE

6 Years

AREAS OF EXPERTISE

- Disaster Debris Management
- Right-of-Way/Right-of-Entry Debris Removal
- Private Property Programs
- Leaner/Hanger Programs
- FEMA Reimbursement

DISASTERS

- 4245 Texas severe storms
- 4166 SC Winter Storm
- 4165 GA Winter Storm
- 4115 SD Winter Storm
- 4087 Hurricane Sandy
- 4084 Hurricane Isaac
- 4029 TX Wildfires

disaster recovery operations, including leaner and hanger removal for the City.

Deputy Project Manager (April 2013–September 2013)

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

Following an ice storm in April 2013, Mr. Dygert served as project manager for the City of Sioux Falls, South Dakota. His responsibilities included serving as the point of contact for the City throughout the recovery operations and managing right-of-way collections and leaner and hanger removal programs. Mr. Dygert managed the total debris collection using RecoveryTrac™.

Operations Manager (December 2012–January 2013)

City of Newark, New Jersey | Hurricane Sandy Disaster Debris Program Management

Mr. Dygert served as operations manager for the City of Newark, New Jersey, where he managed the operations for all debris collections and stump removal using our RecoveryTrac™.

Project Manager (November 2012–December 2012)

Borough of Sayreville and the Township of Ocean, New Jersey | Hurricane Sandy Disaster Debris Program Management

Following Hurricane Sandy, Mr. Dygert served as project manager for the Borough of Sayreville and the Township of Ocean, New Jersey. He was responsible for training monitors for right-of-way collections; managing tower monitoring and hazardous leaner, hanger, and stump removal; organizing the staffing of positions; and tracking the progress of the debris collections using RecoveryTrac™.

Operations Manager (August 2012–October 2012)

Jefferson Parish and the Cities of West Bank and Laffite, Louisiana | Hurricane Isaac Disaster Debris Program Management

Following Hurricane Isaac, Mr. Dygert served as the operations manager for multiple areas in Louisiana, where he managed over 80 locally hired debris monitors. He also provided oversight on right-of-way debris removal, and leaner and hanger removal and assisted with private property debris removal applications.

Project Manager (February 2012–June 2012)

Texas Department of Transportation | Drought & Wildfires Debris Removal Monitoring

Mr. Dygert served as operations manager following the drought that affected Texas in September 2011, where he managed all recovery operations, including right-of-way debris removal and leaner and hanger removal.

Operations Manager (September 2011–August 2012)

Bastrop County, Texas | Wildfire Disaster Program Management

Mr. Dygert served as operations manager, where he worked on right-of-entry properties to identify qualified trees for removal after more than 1,600 homes were destroyed following the largest and most damaging wildfire in Texas history.

EXPERIENCE SUMMARY

Mr. James Ward is an experienced professional providing program management services for hazard mitigation emergency preparedness/planning response and recovery. He has supported projects in that states of Texas, Louisiana, South Carolina, and South Dakota, where he was responsible for implementing schedules for the contractor and providing client support for Federal Emergency Management Agency (FEMA) regulations and procedures.

FEATURED EXPERIENCE

Project Manager (October 2016–January 2017)

City of Port Orange, Florida | Hurricane Matthew Debris Removal Program

Mr. Ward served as project manager for the City of Port Orange’s debris removal program following Hurricane Matthew. He oversaw coordination with the debris removal contractors, field monitor oversight, FEMA reimbursement documentation, and field monitor health and safety. Mr. Ward oversaw the collection of over 428,000 cubic yards of eligible disaster debris that was a result of Hurricane Matthew. He also managed a hazardous tree and hanger removal program that addressed over 6,000 trees in the City.

Operations Manager (August 2016 – September 2016)

Ascension Parish, Louisiana | Severe Storms and Flooding Disaster

Mr. Ward was deployed as an operations manager for Ascension Parish, Louisiana following severe storms and flooding that resulted in concentrated volumes of disaster debris in the Parish. Mr. Ward’s responsibilities included field monitor dispatch, health and safety, reimbursement documentation, and field supervision. Mr. Ward also worked closely with data managers and ADMS specialists to document and track operations as well as deliver expedient and accurate reporting to key stakeholders.

Operations Manager (May 2016 – July 2016)

Harris County, Texas | Severe Storms and Flooding Disaster Debris

Mr. Ward was deployed as an operations manager for the Harris County, Texas following severe storms and flooding that resulted in concentrated volumes of disaster debris in the County. Mr. Ward’s responsibilities include field monitor dispatch, health and safety, reimbursement documentation, and field supervision. Mr. Ward also worked closely with data managers and ADMS specialists to document

YEARS OF EXPERIENCE

6 years

AREAS OF EXPERTISE

- Disaster Debris Management
- Right-of-Way/Right-of-Entry Debris Removal
- Private Property Programs
- Leaner/Hanger Programs
- FEMA Reimbursement

DISASTERS

- 4283 FL Hurricane Matthew
- 4277 LA Severe Storms and Flooding
- 4269 TX Severe Storms and Flooding
- 4223 TX Severe Storms and Flooding
- 4166 SC Winter Storm
- 4115 SD Winter Storm
- 4029 TX Wildfires

and track operations as well as deliver expedient and accurate reporting to key stakeholders.

Senior Field Supervisor (May 2015 – August 2015)

City of Houston, Texas | Severe Storms and Flooding Disaster Debris

Mr. Ward was deployed as a senior field supervisor for the City of Houston, Texas following severe storms and flooding that resulted in concentrated volumes of disaster debris in the City. Mr. Ward's responsibilities include field monitor supervisor, health and safety, reimbursement documentation, and truck certifications.

Field Supervisor (February 2014–May 2014)

Dorchester County, South Carolina | Winter Storm Pax Disaster Debris Program Management

Mr. Ward served as field supervisor for Dorchester County, South Carolina following Winter Storm Pax, where he oversaw field monitors and support reimbursement documentation for the County. Mr. Ward was also instrumental in the identification, hiring, and training of field staff to support the project.

Field Supervisor (April 2013–September 2013)

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

Following an ice storm in April 2013, Mr. Ward served a field supervisor for the City of Sioux Falls, South Dakota. Mr. Ward's responsibilities include field monitor dispatch, health and safety, reimbursement documentation, and field supervision. Mr. Ward also worked closely with data managers and ADMS specialists to document and track operations.

Field Supervisor (September 2011–August 2012)

Bastrop County, Texas | Wildfire Disaster Program Management

Mr. Ward served as a field supervisor, where he worked on right-of-entry properties to identify qualified trees for removal after more than 1,600 homes were destroyed following the largest and most damaging wildfire in Texas history.

EXPERIENCE SUMMARY

Mr. Chen is an experienced quality control and data manager for Tetra Tech, Inc. His areas of expertise are in geographic information systems, documentation management, quality assurance/quality control (QA/QC), database management, and reporting. He also has an in-depth understanding of federal emergency management agency (FEMA) eligibility, documentation requirements, and our automated debris management system (ADMS).

FEATURED EXPERIENCE

Data Manager (January 2016-Current) **Calaveras County, California | Catastrophic Fires**

The catastrophic fires that impacted Calaveras County left severe destruction and damage. Sukut Construction was one of the contractors selected by Calrecycle to remove fire related debris and hazards from private property in the fire impacted areas of Calaveras County. Tetra Tech was contracted by Sukut Construction to provide data management and administrative functions to support debris removal efforts. Tetra Tech digitized source documentation and developed a custom Access database to provide reporting as to the status of properties and debris removal operations. Mr. Chen was deployed as a data manager where he oversaw the custom Access database used for the program.

Data Manager (November 2015-January 2016) **Lake County, California | Catastrophic Fires| Disaster Debris Program Management**

Following catastrophic fires that impacted Lake County in September 2015, 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. Chen was deployed as a data manager where he supported documentation management, reporting, and tree surveying efforts.

Data Manager (March 2014-August 2014) **Boulder County, Colorado | Severe Flooding Disaster Debris Program Management**

Mr. Chen served as data manager for Boulder County, Colorado following the severe flooding that affected the state in September 2013. Mr. Chen supported the implementation of our ADMS technology through all phases of operations and was responsible for troubleshooting with our field team. Mr. Chen's responsibilities also

YEARS OF EXPERIENCE

4 years

AREA OF EXPERTISE

- QC GPS Data Collection/Disposal Monitoring
- Managing ROE Status Layers
- ROW/Parks program live layers on ArcGIS Online Systems

DISASTERS

- 4240 Valley & Butte Fire
- 4166 SC Winter Storm
- 4145 CO Severe Storms and Flooding
- 4086 Hurricane Sandy

EDUCATION

University of Pennsylvania State University
Bachelor of Geography
Minor of GIS

included completing custom reports for Boulder County, providing FEMA compliance management, including quality assurance (QA)/quality control (QC) of right-of-way load collection; and managing the accuracy and organization for all project documents. Through GIS mapping services, Mr. Chen provided requested maps of project progression which required customization for the County. Finally, Mr. Chen also provided Financial Recovery support in assisting with complete of FEMA-PA project worksheets.

Data Manager (February 2014–March 2014)

Dorchester County, South Carolina | Winter Storm Pax Disaster Debris Program Management

Mr. Chen served as the data manager for the County of Dorchester, South Carolina following Winter Storm Pax. He was responsible for deploying and supporting field use of ADMS technology through all phases of operations including truck certifications, load collection, load disposal, and unit rate collections. Mr. Chen also 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 resulting in the development of several resourceful maps for the county and project team members.

Data Manager (January 2013 – April 2013)

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

Mr. Chen was essential to the New Jersey Department of Environmental Protection (NJDEP) waterways debris removal program as a data manager. Mr. Chen implemented our ADMS technology through all phases of operations including truck certifications, load collection, load disposal, and unit rate collections. Due to Mr. Chen's understanding of the project requirements, he also supported QA/QC checks to validate the client received the proper data and documentation to satisfy all FEMA requirements.

EXPERIENCE SUMMARY

Ms. Paris Atkinson is a senior data manager and billing/invoice analyst, where her responsibilities include data management, management of monitoring documentation for the Federal Emergency Management Agency (FEMA), invoice reconciliation, and the use of our automated debris management system (ADMS). She has extensive experience on all aspects of program data management up to and including project closeout and post-closeout audit support. Ms. Atkinson possesses knowledge and understanding of federal grant programs, including the Federal Highway Administration (FHWA) Emergency Relief (ER) Program and FEMA Public Assistance (PA) Program.

FEATURED EXPERIENCE

Senior Data Manager (January 2016–February 2016) **Collier County, Florida | Severe Storm and Straight Line Wind Debris Program Management**

Collier County, FL was impacted in January by a severe storm with measured winds as high as 83 mph. The storm caused significant arboreal damage to the County, so much so that the County chose to activate their disaster debris removal contractors and Tetra Tech. Ms. Atkinson provided program management and debris monitoring services to the County, which included ADMS technology implementation, quality assurance (QA)/quality control (QC) of data, multiple reporting functions, management of debris pile reported data and citizen concerns, contractor reconciliation and invoicing, and final project closeout.

Project Manager (December 2015–Ongoing) **State of Connecticut | Financial Recovery Services, FEMA Public Assistance**

The State of Connecticut has retained Tetra Tech to perform a secondary review of FEMA PA and FHWA-ER related funding that was obligated as a result of Winter Storm Alfred (FEMA-DR-4046). Due to a recent decision on the FEMA eligibility of reduction, final hauling, and final disposal costs, each town/city that applied for and received FEMA PA funding as well as FHWA ER funding must be reviewed to determine if appropriate funding has been obligated. Ms. Atkinson is responsible for reviewing the FEMA PA and FHWA grant documentation; ensuring reduction, final hauling, and final disposal costs have been reimbursed; and identifying any additional charges not captured by FEMA.

YEARS OF EXPERIENCE

12 Years

AREA OF EXPERTISE

- FEMA Reimbursement and Audit Support
- Reimbursement Policies and Procedures
- RecoveryTrac™ ADMS
- Data Management
- Debris Monitoring Compliance
- Vessel Removal
- Leaner and Hanger Removal
- Invoice Reconciliation

GRANT EXPERIENCE

- FEMA PA
- FHWA ER

DISASTERS

- 4283 FL Hurricane Matthew
- Collier County FL Severe Storms
- 4240 CA Valley Fire
- 4225 TX Flooding
- 4223 TX Flooding
- 4166 SC Winter Storm
- 4165 GA Winter Storm
- 4145 CO Flooding
- 4087 Hurricane Sandy
- 4080 Hurricane Isaac
- 4046 CT Winter Storm
- 4029 TX Wildfires
- 3268 NY Snowstorm
- 1609 Hurricane Wilma

EDUCATION

University of Florida
Bachelor of Science,
Psychology, 2005

Senior Data Manager (October 2015–Ongoing)**Lake County, California | Valley Fire Disaster Debris Program Management**

Lake County, California was one of the counties severely impacted by the Valley Fire, which burned over 76,000 acres across Lake, Napa, and Sonoma Counties prior to being fully contained. Tetra Tech was retained by the County to provide program management and debris monitoring services. In addition to a right-of-way debris and hazardous tree removal program, the County also initiated a selective private property debris removal (PPDR) program. One of the unique aspects of the County is the enormous trees along the right-of-ways. Thousands of fire hazard trees were identified throughout the County that, though located on private property, could pose a threat to County maintained roads. As a result, the County initiated a selected PPDR program to address standing dead trees on private property that could impact County roads. Ms. Atkinson served as a senior data manager and was responsible for FEMA compliance management, including QA/QC of data and managing the documentation.

Senior Data Manager (May 2015–Ongoing)**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 by the aforementioned communities to provide program management and disaster debris monitoring services. Ms. Atkinson served as the senior data manager for the Texas projects. She supported the projects by managing the data team in the field; providing FEMA compliance management, including QA/QC of right-of-way load collection; and managing the documentation for all hazardous tree and hanger removal. Ms. Atkinson also provided ADMS and database support for all staff members. Hays County has an ongoing PPDR program for which Ms. Atkinson continues to provide data management support.

Debris Subject Matter Expert (March 2014– September 2014)**Montgomery County, Pennsylvania | Multi-Jurisdictional DDMP**

Ms. Atkinson served as a debris subject matter expert and supported Montgomery County in establishing and implementing a multi-jurisdictional debris management planning program. Ms. Atkinson and the project team developed a debris management strategy based on the assessment of the County's existing resources, landfill and disposal capacity, and debris management site options. Ms. Atkinson also assisted in the development of multiple debris forecast models to estimate the resulting debris volumes following a disaster as well as the County's capacity to address debris using internal equipment and resources.

Data Manager and Debris Management Consultant (March 2014–Ongoing)**Boulder County, Colorado | Severe Flooding Disaster Debris Program Management**

Ms. Atkinson is currently serving as data manager for Boulder County, Colorado following the severe flooding that affected the state in September 2013. Ms. Atkinson is responsible for managing invoice reconciliation with the debris contractor; creating custom reports for Boulder County; managing the data team in the field; providing FEMA compliance management, including QA/QC of right-of-way load collection; and managing the documentation for all hazardous tree and hanger removal. Ms. Atkinson also provides ADMS and database support for all staff members. Additionally, Ms. Atkinson assists with management of the FHWA-ER program for the County.

Data Manager (May 2014–August 2014)**Blount County; Limestone County, Alabama | Severe Storms and Tornadoes Disaster Debris Program Management**

Ms. Atkinson served as data manager for two counties in Alabama following severe storms and tornadoes that affected the area in May. Ms. Atkinson was responsible for managing invoice reconciliation with the debris contractor; managing the data team in the field; providing FEMA

compliance management, including QA/QC of right-of-way load collection; and managing the documentation for all hazardous tree and hanger removal.

Data Manager (February 2013–April 2014)

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

Ms. Atkinson served as data manager following Hurricane Sandy, where she was responsible for the management and data creation of vessel removal tracking in New Jersey waterways, photo management of vessel removals, data management and tabulation, monitoring document compliance, monitoring the removal of vessels in accordance with legal requirements established, and database support for staff.

Data Manager (August 2012–February 2014)

St. John the Baptist Parish, Louisiana | Hurricane Isaac Disaster Debris Management Program

Ms. Atkinson served as data manager, where she provided invoice reconciliation, data export creation, data center management, document compliance monitoring, management of hazardous tree and hanger photo documentation, and database support for staff. Ms. Atkinson also monitored data to ensure FEMA compliance in the field and the managed us of our ADMS.

Data Manager (September–November 2012)

Jefferson Parish and the City of New Orleans, Louisiana | Hurricane Isaac Disaster Debris Management Program

Ms. Atkinson served as data manager following Hurricane Isaac, where she was responsible for call center management, data center management, document compliance monitoring, management of hazardous tree and hanger photo documentation, database support for staff, and data monitoring to ensure FEMA compliance in field.

Project Manager (July 2012–September 2012)

Lake County, Florida | FEMA-Compliant Disaster Debris Management Plan

In August 2012, she assisted Lake County, Florida, with the development of a FEMA-compliant disaster debris management plan. In addition, she assisted the County in developing a scope of services for their request for proposal for debris contracting, where a large focus was on helping complete the debris hauling request for proposal and guiding the County through the bid process.

Data Manager (July 2012–August 2012)

Clay County, Florida | Tropical Storm Debby Disaster Debris Management Program

Ms. Atkinson was responsible for data entry, tabulation, data management of compliance documentation, and the organization of collection and disposal data.

Operations Manager and Data Manager (February 2006–August 2006)

Collier County, Florida | Hurricane Wilma Disaster Waterways Debris Removal Program Management

Ms. Atkinson served as operations manager and data manager for Collier County, Florida, following Hurricane Wilma, where she was responsible for the supervision, support, and evaluation of field staff; documentation compliance; and ensuring waterway debris removal was compliant with Natural Resources Conservation Service contract specifications. Ms. Atkinson also developed standard operating procedures specific to the waterway debris removal project.

EXPERIENCE SUMMARY

Mr. Burns has over 15 years of experience in the environmental field. While working for the Pennsylvania Department of Environmental Protection (PADEP), Mr. Burns served on the Palmerton Zinc Superfund Site Trustee Group (Natural Resource Damage Assessment Case) and the Aquatic Sub-committee Group. Mr. Burns was responsible for acting as the designated trustee from the PA DEP. While serving in this role, Mr. Burns was responsible for assisting with numerous assessments and document review. Mr. Burns assisted with the creation of the Pennsylvania Index of Biological Integrity to be used throughout the state of Pa. While with Tetra Tech, assisted with the Enbridge Line 6b release NRDA work. During this role, Mr. Burns assisted with the creation of numerous assessments, reviewed data from these assessments, participated in NRDA meetings, and developed the SCAT reconciliation process for the Enbridge release. Mr. Burns has also overseen and participated in numerous tank removals and cleanups.

Mr. Burns has responded to over 400 oil spills, conducting responses to oil spills, complaints, fish kills, and a multitude of site assessments. His experience includes responses to small releases from above ground home heating oil tanks to larger releases from underground storage tanks and pipelines that have affected surface water, groundwater, and soil. Mr. Burns' responsibilities during these activities have included management of personnel and equipment as well as support during a wide variety of emergency responses such as the Kalamazoo Enbridge Line 6B Pipeline Release, Allied Terminal Ammonium Nitrate Release, Buckeye Pipeline Release, Ivy Industrial Park Case, Church Road TCE Case, and Ashland Uni-Mart Vapor release.

Mr. Burns is currently the Emergency Response Coordinator and Deputy Program Manager for the US EPA Region 5 START Contract. He is trained in the operation and maintenance of field equipment for use in emergency response operations. Specific equipment used includes radiation detection meters, multi-media sampling equipment, and air monitoring equipment such as FIDs, PIDs, Dräger colorimetric tubes and pumps, HAPSITE Portable GCMS and Headspace Sampler, and Summa Canisters. Mr. Burns is also experienced in the collection of asbestos samples and is versed in the 2009 asbestos framework for collection of asbestos samples, he currently manages 5 asbestos sites for Tetra Tech.

YEARS OF EXPERIENCE

15 years

AREA OF EXPERTISE

- Fire Assessment
- Emergency Response
- Asbestos
- Technical Report Preparation and Review
- Project Management
- Scientific Research
- Fisheries/Ichthyology

TRAINING/CERTIFICATIONS

- ICS Level 100, 200, 300, 400, 301 and NIMS 700 and 800
- 40-Hour OSHA 29 CFR 1910.120 HAZWOPER
- OSHA 8-Hour Refresher Training
- EPA Chemistry for Environmental Professionals
- EPA Air Monitoring for Hazardous Materials 165.4, 2007 and 2005 EPA RCRA Compliance and Enforcement Workshop
- EPA Sampling for Hazardous Materials 165.9
- EPA Introduction to Groundwater Investigations 165.7

EDUCATION

Penn State University, Bachelor of Science in Fisheries and Wildlife Science

RELEVANT EXPERIENCE

Clayton Valley Fire California Fire Response (October 2016-Present)

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-Present)

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.

Harbin California Fire Response (October 2015)

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 over 250 parcels of burned area in Northern 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.

NPL-4 Radiation Site (Ottawa IL) (November 2014-present)

Field Team Lead responsible for overall work completed on site. Task included subcontractor oversight, project staff supervision, and overall completeness of a 35,000 tons of contaminated soil. Soil was contaminated with Radium-226 from fill operations. Task included segregation and excavation of contaminated material above the remedial action goal that was site specific. Mr. Burns was responsible for initial assessment of the site where trenches were employed to delineate the extent of contamination. Remediation of the site consisted of removal of impacted soil, segregation, water treatment, air sampling and monitoring, soil sampling and monitoring, and restoration operations.

Green Ribbon Trails (2010)

Project Manager, responsible for the work plan, multiple sampling and analysis plans, trip reports, and case study reports for the site. The site is a former asbestos facility. Sampling included activity-based sampling, bulk, soil, and ambient air sampling.

Former Keasby and Mattison Asbestos Facility (2010)

Project Manager, responsible for the work plan, multiple sampling and analysis plans and trip reports for the site. The site is a former asbestos facility. Sampling included activity-based sampling, bulk, soil, and ambient air sampling.

Liberty Radiation Exercise (2010)

Tier 3 United States EPA exercise in which a cesium explosive device was detonated in downtown Philadelphia. This multi-agency / multi-contractor exercise was a 5 day drill that incorporated all aspects of incident command and radiological forecasting devices. Specific duties included act as a member of the unified command overseeing all aspects of the exercise as in play.

TAB B: EXPERIENCE

DEBRIS MONITORING CONTRACTS WITHIN 250 MILE RADIUS

The table below lists Tetra Tech’s current contractual obligations for debris monitoring for counties within 250 miles of the City of League City (City).

Exhibit B-1: Listing of Pre-Positioned Contracts

	Client Name	Client Name
CONFIDENTIAL	Blanco County	Harris County
	Brazoria County	Hays County
	Caldwell County	Jefferson County
	Cameron County	Liberty County
	Fort Bend County	Montgomery County
	Galveston County	Wharton County

KNOWLEDGE AND EXPERTISE IN DEBRIS MANAGEMENT

Recent Debris Monitoring Experience

Our team has vast experience providing disaster management, recovery, and consulting services to state and local government agencies. Our approach includes partnering with our clients to establish and test the necessary plans and procedures before a disaster strikes and assisting with disaster response and recovery operations as well as post-disaster grant management. One of the keys to maintaining readiness in the field of disaster response and recovery is remaining active year-round. **Our team has responded to 20 major disaster declarations since 2011, totaling over 140 clients throughout the country.** Exhibit B-2 provides an abbreviated experience matrix for projects conducted since 2011. *Specific project descriptions are featured later in this section and references have been included in Tab E. Tetra Tech can provide additional projects and information upon request.*

Tab B: Experience

Exhibit B-2: Experience Matrix (2011–2016)

Event/Client	Year	Cubic Yardage	Comprehensive Contract Management	Collection Monitoring	Disposal Monitoring	Hazardous Waste Collection Monitoring	Leaner/Hanger/Stump Removal	TDSRS Environmental Support	Beach Remediation/Restoration	ROE Administration	Marine/Waterway Debris Removal I	Data Collection/ Management/ Billing/ Invoicing	FEMA Compliance Monitoring & Audit	FEMA Reimbursement	ADMS
HURRICANE MATTHEW – 2016¹															
Total Cubic Yards of Debris – 8,739,550 (Estimated) Total Clients – 34 Representative Clients:															
Brevard County, FL	2016	820,779	■	■	■							■	■	■	■
Liberty County, GA	2016	182,468	■	■	■		■					■	■	■	■
City of New Smyrna Beach,	2016	203,981	■	■	■		■					■	■	■	■
St. Johns County, FL	2016	712,705	■	■	■							■	■	■	■
Volusia County, FL	2016	1,058,334	■	■	■		■					■	■	■	■
Beaufort County, SC	2016	1,500,000 ²	■	■	■		■					■	■	■	■
Hilton Head Island, SC	2016	2,500,000 ²	■	■	■		■					■	■	■	■
Horry County, SC	2016	187,395	■	■	■		■					■	■	■	■
SEVERE STORMS AND FLOODING – 2016²															
Total Cubic Yards of Debris – 1,481 Total Clients – 2															
Ascension Parish, LA	2016	390,000	■	■	■							■	■	■	■
Iberville Parish, LA	2016	46,264	■	■	■							■	■	■	■
WILDFIRES - 2016²															
Total Cubic Yards of Debris – 2,875 Total Clients – 2															
Kern County, CA	2016	T&M ³	■	■	■	■	■	■		■		■	■	■	■
Monterey County, CA	2016	T&M ²	■					■				■	■	■	■
SEVERE STORMS AND FLOODING – 2016															
Total Cubic Yards of Debris – 313,800 Total Clients – 6															
City of Houston, TX	2016	193,951	■	■	■							■	■	■	■

¹ On-going debris collection operations

² Time and materials contract documentation

Tab B: Experience

Event/Client	Year	Cubic Yardage	Comprehensive Contract Management	Collection Monitoring	Disposal Monitoring	Hazardous Waste Collection Monitoring	Leaner/Hanger/Stump Removal	TDSRS Environmental Support	Beach Remediation/Restoration	ROE Administration	Marine/Waterway Debris Removal I	Data Collection/ Management/ Billing/ Invoicing	FEMA Compliance Monitoring & Audit	FEMA Reimbursement	ADMS
Harris County, TX	2016	39,940	■	■	■							■	■	■	■
Montgomery County, TX	2016	53,208	■	■	■							■	■	■	■
WILDFIRES – 2015¹															
Total Cubic Yards of Debris – 38,000 Total Clients – 2															
Lake County, CA	2015	38,000	■	■	■		■	■		■		■	■	■	■
Calaveras County, CA	2015	T&M ³	■	■	■		■	■		■		■	■	■	■
SEVERE STORMS – 2015¹															
Total Cubic Yards of Debris – 199,578 Total Clients – 3															
Friendswood, TX	2015	8,800	■	■	■							■	■	■	■
Hays County, Texas	2015	132,100	■	■	■		■	■				■	■	■	■
Caldwell County, Texas	2015	58,678	■	■	■		■	■				■	■	■	■
FLOODING – 2015¹															
Total Cubic Yards of Debris – 293,750 Total Clients – 10 Representative Projects:															
City of Houston, TX	2015	240,725	■	■	■							■	■	■	■
Hays County, TX	2015	10,900	■	■	■		■	■				■	■	■	■
Town of Wimberley, TX	2015	18,922	■	■	■		■	■				■	■	■	■
FLOODING – 2014															
Total Cubic Yards of Debris – 10,000 Total Clients – 1															
Escambia County, FL	2014	10,000	■	■	■							■	■	■	■
TORNADO – 2014															
Total Cubic Yards of Debris – 179,851 Total Clients – 2															
Limestone County, AL	2014	104,256	■	■	■		■	■				■	■	■	■
Blount County, AL	2014	75,595	■	■	■		■	■				■	■	■	■
ICE STORM – 2014															
Total Cubic Yards of Debris – 1,041,047 Total Clients – 7															

Tab B: Experience

Event/Client	Year	Cubic Yardage	Comprehensive Contract Management	Collection Monitoring	Disposal Monitoring	Hazardous Waste Collection Monitoring	Leaner/Hanger/Stump Removal	TDSRS Environmental Support	Beach Remediation/Restoration	ROE Administration	Marine/Waterway Debris Removal I	Data Collection/ Management/ Billing/ Invoicing	FEMA Compliance Monitoring & Audit	FEMA Reimbursement	ADMS
Augusta-Richmond, GA	2014	739,640	■	■	■		■	■				■	■	■	■
Sumter County, SC	2014	104,722	■	■	■		■	■				■	■	■	■
Dorchester County, SC	2014	91,850	■	■	■		■	■				■	■	■	■
Barnwell County, SC	2014	85,703	■	■	■		■	■				■	■	■	■
Colleton County, SC	2014	61,883	■	■	■		■	■				■	■	■	■
City of Sumter, SC	2014	35,424	■	■	■		■	■				■	■	■	■
FLOODING – 2013															
Total Cubic Yards of Debris – 140,000* Total Clients – 1															
Boulder County, CO	2013	140,000*	■	■	■		■	■		■		■	■	■	■
ICE STORM – 2013															
Total Cubic Yards of Debris – 100,664 Total Clients – 1															
City of Rapid City, SD	2013	100,664	■	■	■		■	■				■	■	■	■
ICE STORM – 2013															
Total Tons of Debris – 79,925 Total Clients – 1															
City of Sioux Falls, SD	2013	79,925*	■	■	■		■	■				■	■	■	■
HURRICANE SANDY – 2012															
Total Cubic Yards of Debris – 272,931 Total Clients – 13 Representative Projects:															
New Jersey DEP	2012	193,706	■	■	■	■			■		■	■	■	■	■
HURRICANE ISAAC – 2012															
Total Cubic Yards of Debris – 721,672 Total Clients – 5 Representative Projects:															
Jefferson Parish, LA	2012	270,136	■	■	■		■	■				■	■	■	
St. John the Baptist	2012	225,000	■	■	■	■	■	■				■	■	■	■
City of New Orleans, LA	2012	177,443	■	■	■		■	■				■	■	■	
TROPICAL STORM DEBBY – 2012															
Total Cubic Yards of Debris – 7,253 Total Clients – 3 Representative Projects:															

Tab B: Experience

Event/Client	Year	Cubic Yardage	Comprehensive Contract Management	Collection Monitoring	Disposal Monitoring	Hazardous Waste Collection Monitoring	Leaner/Hanger/Stump Removal	TDSRS Environmental Support	Beach Remediation/Restoration	ROE Administration	Marine/Waterway Debris Removal I	Data Collection/ Management/ Billing/ Invoicing	FEMA Compliance Monitoring & Audit	FEMA Reimbursement	ADMS
Clay County, FL	2012	3,777		■	■							■	■		
HURRICANE IRENE – 2011															
Total Cubic Yards of Debris – 573,200 Total Clients – 22 Representative Projects:															
Dare County, NC	2011	145,700		■	■							■	■	■	
VA DOT	2011	132,600		■	■		■					■	■	■	
Lenoir County, NC	2011	127,000		■	■							■	■	■	
TEXAS DROUGHT & WILDFIRES – 2011															
Total Cubic Yards of Debris – 990,868 Total Clients – 2															
Bastrop County, TX	2011	773,068		■	■		■			■		■	■	■	
City of Houston, TX	2011	271,800		■	■		■					■	■	■	■
NOR'EASTER (WINTER STORMS) – 2011															
Total Cubic Yards of Debris – 1,787,201 Total Clients – 19 Representative Projects:															
CT DOT	2011	436,410		■	■		■					■	■	■	
Town of W. Hartford, CT	2011	321,682		■	■		■					■	■	■	
Town of S. Windsor, CT	2011	234,764		■	■		■					■	■	■	
Town of Enfield, CT	2011	189,090		■	■							■	■	■	
Town of Manchester, CT	2011	153,575		■	■		■					■	■	■	
TORNADOES – 2011															
Total Cubic Yards of Debris – 61,458 Total Clients – 4 Representative Projects:															
USACE/Elmore County	2011	33,220		■	■		■								

* Cubic yardage volume converted from tons using FEMA conversion ratio

Tab B: Experience

LARGE-SCALE DEBRIS MONITORING EXPERIENCE

Our team understands the significant resource commitment and effort that is necessary to manage and monitor large-scale debris removal operations for local governments. We have monitored and obtained FEMA, FHWA, and NRCS reimbursement on **16 debris removal projects in excess of 1 million CYs of debris**.

Tetra Tech takes great pride in the reliability of our service. Clients count on us to respond in their time of need, and we deliver. Our team has never failed to respond to our clients' deployment and mobilization needs, regardless of location or type of disaster. *Exhibit B-3 summarizes our team's experience serving as the prime contractor on large-scale debris monitoring projects for over 500,000 CYs of debris in the past 10 years.* Our services under these engagements included environmental permitting, temporary debris storage and reduction site (TDSRS) monitoring, contractor invoice reconciliation, and federal grant reimbursement support.

Exhibit B-3: Summary of Our Large-Scale Debris Monitoring Activations

Client	Disaster	Year	Cubic Yards Monitored
Escambia County, Florida	Hurricane Ivan	2004	5,385,084
City of Pensacola, Florida	Hurricane Ivan	2005	1,381,670
Santa Rosa County, Florida	Hurricane Dennis	2005	1,708,085
Escambia County, Florida	Hurricane Dennis	2005	1,589,182
Jefferson County, Texas	Hurricane Rita	2005	1,448,027
City of Gulfport, Mississippi	Hurricane Katrina	2005	2,891,220
Harrison County, Mississippi	Hurricane Katrina	2005	2,494,971
Miami-Dade County, Florida	Hurricane Wilma	2005	2,571,871
City of Springfield, Missouri	Midwest Snowstorms	2007	1,442,727
City of Houston, Texas	Hurricane Ike	2008	5,469,167
Harris County, Texas	Hurricane Ike	2008	2,395,475
City of Bolivar, Texas	Hurricane Ike	2008	2,699,683
City of Galveston, Texas	Hurricane Ike	2008	1,810,857
Volusia County, Florida	Hurricane Matthew	2016	1,058,334
Beaufort County, South Carolina	Hurricane Matthew	2016	1,500,000 (Ongoing)
Hilton Head Island, South Carolina	Hurricane Matthew	2016	2,500,000 (Ongoing)

Tab B: Experience

EXPERTISE AND EXPERIENCE WITH FEMA ELIGIBILITY REQUIREMENTS

Tetra Tech understands the City is seeking to retain the services of an experienced disaster debris removal monitoring and consulting services firm to assist in augmenting City forces following a major debris-generating event. Tetra Tech is a nationally recognized program management consulting firm, specializing in assisting local governments (sub-grantees under the Public Assistance program) maximize their opportunity for federal funding for debris removal activities. Tetra Tech maintains best-in-class services in all areas potentially required following a disaster event.

Through our extensive experience Tetra Tech's management team has a detailed understanding of eligibility requirements and will work with the City to make sure they understand potential eligible versus ineligible tasks associated with this contract. If the City after notification elected to move forward with any particular task that in our professional opinion would not be reimbursable, Tetra Tech would invoice those tasks separately than eligible project tasks so clear eligible invoices can be submitted for project worksheet formulation.

Experience Coordinating with Federal, State, and Local Funding Sources and Reimbursement Processes

Throughout the course of the hundreds of debris management and grant management projects that our staff has administered for state and local governments across the United States, our team has developed a unique understanding of the FEMA organization and other regulatory agencies' policies and procedures. Our team maintains strong relationships with many of the lead federal coordinating officers, debris specialists, Public Assistance (PA) coordinators and officers, and other staff. Our team also understands the duties and responsibilities of emergency management personnel at the state and local level, which helps us build strong relationships. Our team has worked with hundreds of local government emergency management agencies and dozens of state emergency management organizations following disaster debris-generating events.

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. **To date, our team has an impeccable record of obtaining 100% reimbursement of the eligible federal cost share for both FEMA PA and FHWA-ER applications that our team has prepared and monitored on behalf of clients nationwide.**

To maximize PA funding for our clients, our staff members maintain a working relationship with FEMA at the headquarters, regional, and local levels. Constant communication and regular interface with FEMA allows our team to obtain quick responses on disaster-specific guidance and issues.

Moreover, Tetra Tech maintains a full-time staff to assist our clients in obtaining reimbursement. **Mr. Dick Hainje**, former regional administrator of FEMA Region VII, has been responsible for deploying and managing over 2,000 emergency management employees following disasters and created a long-term community recovery process for FEMA Region VII. Mr. Hainje has assisted our clients with navigating the reimbursement process and obtaining clarification on FEMA policies. Mr. Hainje also led the response, recovery, and mitigation for the historic 2008

Tab B: Experience

Midwest flooding event, where he was the regional administrator in charge of over 1,000 FEMA employees deployed to this event.

Additionally, our data management and document storage procedures are tailored to facilitate FEMA review of the generation of project worksheet versions throughout the project. ***Our FEMA appeals and funding specialists have worked with FEMA closeout officers to obtain millions of previously deobligated dollars for communities.***

In the field, our operations managers and field supervisors 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. We employ a rigid field documentation protocol that is in compliance with FEMA regulations and that our team has utilized successfully in more than 300 major activations. ***Our understanding of reimbursement agencies' requirements for eligibility, documentation, and reimbursement has helped our clients obtain over \$4 billion in reimbursement funds from federal agencies such as FEMA, FHWA, and the NRCS.***

Our team has an outstanding track record of receiving maximum reimbursement for our clients. Our data is rarely challenged, but we always stand beside our clients in defending our data and process, should the need arise.

WHAT DO OUR CLIENTS SAY?

"Your team assisted us with FEMA PA Grant Program application and administration, FHWA ER technical assistance, FEMA HMGP grant application, and HUD CDBG-DR project identification, technical assistance, and application development representing a combined estimated \$280 million in federal grants—the largest grant application in Boulder County's history.

Boulder County has been very pleased by the work of your team and would absolutely recommend them to any other state or local government agency in the aftermath of a disaster."

**Michelle Krezek, Commissioners' Deputy
Boulder County, Colorado**

Disaster Recovery Program Management Services

As a result of our successful performance on past projects, our team has become a national leader in providing management and support documentation for the following:

- Emergency road clearance
- Curbside debris collection
- Operation of citizen drop-off sites
- Demolition of uninhabitable structures
- Data management and invoice reconciliation
- Execution of private property debris removal (PPDR) programs
- Oversight of TDSRS location
- Final debris disposal at a landfill or other end use
- Conflict and damage resolution
- Truck certification
- Right-of-entry (ROE) administration

Tab B: Experience

Special Programs Management

Our team is experienced with all facets of the debris removal monitoring industry, including special disaster recovery program management services. Some examples of special programs our team has managed and administered include the following:

- Animal carcass removal and disposal
- Asbestos abatement
- Beach remediation/restoration
- Construction and demolition debris
- Creosote piling
- Disposal site management
- Drainage and canal debris removal
- E-wastes
- Food waste removal
- Hazardous waste debris removal
- Leaner, hanger, and stump removal
- Marine/waterway debris removal
- Private property demolition/debris removal
- Nuisance abatement ordinance administration
- Saltwater killed tree removal
- Subsurface storm drain debris removal
- Vessel and vehicle recovery
- Wetland and parkland debris
- White goods debris removal
- Woodchips/ashes

Private Property/Right-of-Entry Debris Removal

Our team has administered many of the largest PPDR programs in U.S. history, including projects for New Orleans, Louisiana; Gulfport, Mississippi; Bastrop, Texas; and Escambia County, Florida. Tetra Tech assists communities with ensuring they have the legal authority via local and state ordinances to enter onto private property. Our team also assists with preparing submittal packages for FEMA to approve the program, promoting the ROE program with residents, and ensuring the program is properly documented. Exhibit B-4 is a representative list of our experience in assisting clients with PPDR activities and demolition program management.

Exhibit B-4: PPDR and Demolition Program Management

Client	Disaster/Year	Public Advertisement	Application Administration	Historical/Environmental	Property Survey	Scheduling	Individual Property Debris	Demolition Program	Debris Removal Monitoring	Reduction/Disposal Monitoring	Property Close Out	Data Management
Lake County, CA	Wildfires (2015)	■	■	■	■	■			■	■	■	■
Hays County, TX	Flooding (2014)	■	■	■	■	■			■	■	■	■
Boulder County, CO	Flooding (2013)	■	■	■	■	■		■	■	■	■	■
Middletown, Township	Hurricane Sandy					■	■	■	■	■		■
St. John the Baptist	Hurricane Isaac	■			■	■			■	■		■

Tab B: Experience

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

Leaning Trees, Hanging Limbs, and Stump Removal

Leaning trees, hanging limbs, and stumps pose significant threats to public health and safety. Guidance on reimbursement for the removal of these vegetative threats is disaster-specific. Tetra Tech has the experience and expertise to help communities avoid the de-obligation of funds or non-reimbursement for these activities due to ineligible work. Our team has assisted numerous clients in surveying, documenting, and monitoring the removal of leaning trees, hanging limbs, and stumps. ***Our team members most monitored the removal and disposal of 26,800 hazardous trees and hangers for the City of Augusta following 2014 Winter Storm Pax.*** Exhibit B-5 provides featured clients where our team has monitored the collection and removal of leaning trees, hanging limbs, and stumps following a disaster debris-generating event.

Exhibit B-5: Previous Leaner/Hanger/Stump Removal Programs

Client	Event	Total Leaners/Hangers/Stumps Removed
City of Augusta, Georgia	2014 Winter Storm Pax	26,800
City of Rapid City, South Dakota	2013 Ice Storm	8,000
City of Sioux Falls, South Dakota	2013 Ice Storm	26,700
State of Connecticut	2011 Winter Storm Alfred	57,200
Henrico County, Virginia	2011 Hurricane Irene	15,500

Tab B: Experience

Client	Event	Total Leaners/Hangers/ Stumps Removed
Texas Department of Transportation	2011 Texas Drought and Wildfires	5,800
City of Raleigh, North Carolina	2011 Tornado	7,500
Arkansas Game and Fish Commission	2009 Ice Storm	48,900
City of Houston, Texas	2008 Hurricane Ike	212,500
Terrebonne Parish, Louisiana	2008 Hurricane Gustav	14,500
City of Norman, Oklahoma	2007 Midwest Ice Storm	26,800
Greene County, Missouri	2007 Midwest Snow Storm	53,900
Genesee County, New York	2006 Ice Storm	9,100
Town of Amherst, New York	2006 Ice Storm	32,700
City of Fort Lauderdale, Florida	2005 Hurricane Wilma	20,400
Santa Rosa County, Florida	2005 Hurricane Dennis	13,700
Escambia County, Florida	2004 Hurricane Ivan	15,100

PAST RELEVANT EXPERIENCE

Similar to the services being requested by the City, our team has successfully assisted over 300 clients with recovering from the damaging effects of ice storms, hurricanes, tropical storms, tornadoes, and floods across the country. Our efforts have allowed our clients to maintain their focus on continuing daily operations while relying on us to oversee the management of debris removal operations and federal reimbursement in compliance with FEMA and FHWA guidelines and reimbursement procedures.

The projects included at the end of this section are a representative sample of our experience and accomplishments in performing similar services within the last 60 months/5 years.

Additional project information can be provided upon request.

As requested in the RFP, references have been included in Tab E.

Tab B: Experience

Relevant Project Profiles



Situated just 40 miles north of Houston and encompassing 1,047 square miles, Montgomery County is one of the fastest growing counties in the nation. The County was severely impacted when **Hurricane Ike** made landfall in September of 2008. The County activated Tetra Tech to provide program management and monitoring services.

The Tetra Tech team quickly mobilized an experienced debris management team and over the next three months Tetra Tech worked closely with County to monitor and document debris removal efforts for federal reimbursement. Tetra Tech successfully monitored and documented the **removal of 3,782 hazardous hangers, 1,189 hazardous trees, and 684,252 cubic yards of disaster debris.**

In the years following Hurricane Ike, Tetra Tech has worked with the County to plan for and prepare for future disasters. Most recently, Tetra Tech was activated by the County to monitor and document debris removal activities **following the April 2016 Texas floods.** The current program is being documented using RecoveryTrac™ automated debris management system technology.

CLIENT

Montgomery County, Texas

TYPE OF DISASTER

Hurricane and Flood

TYPE OF JURISDICTION

County

DURATION

September 2008 and then

May 2016 – August 2016

REFERENCE

Ms. Miranda Hahs, Senior
EM/Homeland Security
Planner

9472 Airport Road
Conroe, TX 77303

(936) 523-3903

Miranda.hahs@mctx.org



PROJECT DESCRIPTION

In the early morning hours of October 31, 2015, an EF2 tornado severely damaged several Friendswood homes and left public roads blocked by downed trees, powerlines, and other debris. Within 12 hours of the disaster, Tetra Tech responded to the City, sending a project manager immediately to the site. The project manager was able to assess the damage and meet with Friendswood officials. Upon notice to proceed, our firm mobilized a local team of debris monitors and established our ADMS for the City, focusing on the tornado path boundaries. Through the RecoveryTrac™ portal, City officials were able to observe the contracted debris hauler in real time, track task orders, and administer assistance to the citizens of Friendswood affected by the incident.

The City of Friendswood, Texas is a long-time client, and our firm has maintained contact and assisted the City in times of normalcy in addition to pre and post-disaster situations. Since 2007, Tetra Tech has supported the City on multiple projects, including debris monitoring after Hurricane Ike in 2008, Community Development Block Grant - Disaster Recovery (CDBG-DR) application development, and most recently, disaster debris monitoring in 2015.

CLIENT

City of Friendswood,
Texas

TYPE OF DISASTER

Tornado

TYPE OF JURISDICTION

City

DURATION

November 1 – November
16, 2015

REFERENCE

Brian Mansfield
Assistant Emergency
Management Coordinator
1600 Whitaker Drive,
Friendswood, TX 77546
(832) 875-2365
b.mansfield@ci.friendswood.tx.us



PROJECT DESCRIPTION

On May 30, 2016, a devastating flood impacted Fort Bend County, causing damage and debris across the County. Tetra Tech was tasked by the County to provide program management and monitoring services. The Tetra Tech field team certified 28 hauling units that removed over 48,000 cubic yards of flood debris within the County. RecoveryTrac™ ADMS was used to monitor and document debris removal activities within the County and three other municipalities that requested the County's assistance through an interlocal government agreement.

Additionally, with an estimated \$15 million in damage, the County requested that our team assist with applying for, administering, and managing FEMA PA funding for categories A-G. Tetra Tech deployed a team of financial recovery consultants to assist the County in preparing PWs and maximizing grant funding for disaster response and recovery efforts. Our assistance after the flood however, has gone beyond just FEMA PA consulting to assisting the County with HMGP applications, identification of substantially damaged properties, staff augmentation for permits departments, and EOC staff support.

We are proud of our long-term relationship with Fort Bend County, whom we have assisted since 2007 in a variety of capacities, including debris management after Hurricane Ike in 2008, plan writing, and exercises. We continue to stand "at the ready" in the event the County needs our service in the future.

CLIENT

Fort Bend County, Texas

TYPE OF DISASTER

Flood

TYPE OF JURISDICTION

County

DURATION

May 2016 – May 2017

REFERENCES

Mr. Jeff Braun

Emergency Management
Coordinator

307 Fort Street

Richmond, TX 77469

(281) 342-6185

Jeff.Braun@fortbendcountytexas.gov



PROJECT DESCRIPTION

The City of South Daytona's coastal location along the Halifax River placed its residents in a vulnerable position with the impending landfall of Hurricane Matthew. While a last-minute shift in the storm's path prevented a more severe impact along the Florida Atlantic Coast, the Category 3 hurricane's prevailing wind gusts and deluge of rain caused widespread damage and debris throughout the City.

Tetra Tech remained on standby, assisting the City and its key stakeholders prior to landfall as well as immediately after the storm's impact. Following a damage assessment right after the storm passed, our team began the hiring and training of local debris monitors. Tetra Tech's existing partnership with the City, including holding annual pre-hurricane season meetings, allowed for a rapid start to debris monitoring operations with little to no learning curve.

Tetra Tech enlisted a dedicated project management team to provide truck certification, collection monitoring, disposal monitoring, data management, and project reporting for FEMA reimbursement and overall project management and oversight. In total, Tetra Tech managed the removal of over 93,000 cubic yards of debris from the City and over 40 leaner and hanger removals. Tetra Tech continues to support the City in providing the documentation and support necessary to develop FEMA project worksheets.

CLIENT

City of South Daytona,
Florida

TYPE OF DISASTER

Hurricane

TYPE OF JURISDICTION

City

DURATION

October 2016–December
2016

REFERENCE

Les Gillis, P.E.
Director of Public Works
1770 Seagrave Street
South Daytona, FL 32119
(386) 322-3080
lgillis@southdaytona.org



PROJECT DESCRIPTION

On the evening of January 2, 2017, a severe storm spanning several EF-1 tornados produced a 3 to 4 mile swath of destruction. Winds reached 85 mph across the northern half of the City of Albany, causing widespread damage across the city. The damage survey team found hundreds of snapped and/or uprooted trees, damage to structures and buildings, and occasional instances of extensive damage to wide-span metal roofs in areas throughout the city. Much of the severe structural damage surveyed was a result of trees falling onto structures and powerlines, where the roads are canopied by old oak trees and FEMA declared DR-4294-GA.

On January 22, while recovery from the first storm system was still ongoing, a massive EF-3 tornado was responsible for approximately \$40 million in damages across the City of Albany and Dougherty County, scattering trees and leveling residencies in its wake, continuing for 80 miles across southern Georgia. This system resulted in DR-4297-GA for Dougherty County, GA and 21 other counties in Georgia. In total fifteen people were killed and 43 people were injured after these series of storms moved through southwest Georgia in January 2017.

Tetra Tech was retained under two separate immediate work solicitations issued by the City and County. Our team was on-site in a matter of hours to begin in-person consultations with City and County staff and began training staff for immediate deployment. In response to the disaster, our team trained and oversaw the County's debris monitors for the removal of hazardous trees and limbs along the County's rights-of-way.

Tetra Tech continues to provide ongoing debris monitoring for both the City of Albany and Dougherty County, GA along with financial recovery services, helping both City and County to gather the documentation for their project worksheets for both their Category A debris costs and all permanent repairs needed. In addition, the Tetra Tech team is working on a long-term recovery plan for the County.

CLIENT

Albany-Dougherty County,
GA

TYPE OF DISASTER

Tornado

TYPE OF JURISDICTION

City and County

DURATION

January 2017 - Ongoing

REFERENCE

Phil Roberson, Asst. City
Manager
2104 Habersham Road
Albany, GA 31701
(229) 357-0667
Proberson@dougherty.ga.us

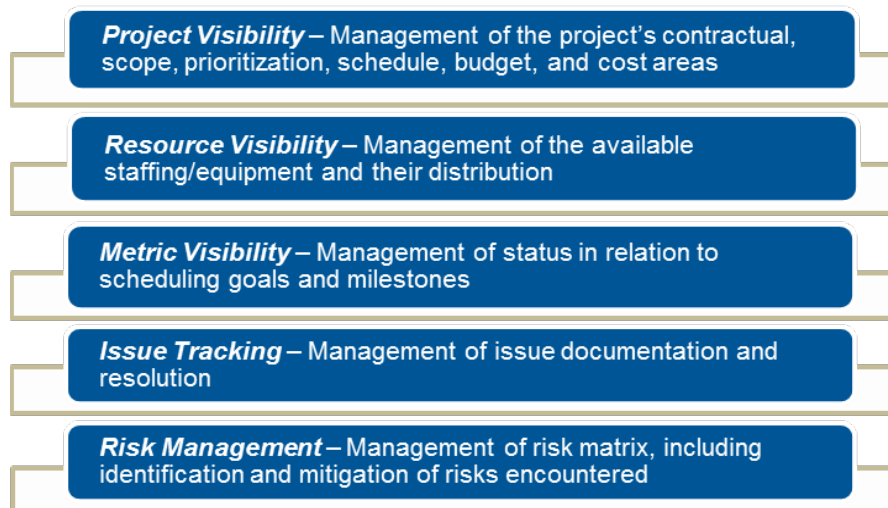
TAB C – PROJECT METHODOLOGY

Tetra Tech implements a best practices approach to disaster debris monitoring when planning for and responding to debris-generating events. Tetra Tech has carefully reviewed the scope of work requested in League City’s (City) request for proposal (RFP) and can assure the City that we have the extensive experience, understanding, and knowledge of the City 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. Our project team will continue to dedicate themselves to the City’s needs throughout the year, not just during times of activation.

PROJECT MANAGEMENT METHODOLOGY

Our methodology of project management governs both the planning and execution of all project work. The strategy, structure, and staffing requirements for the project organization are based on client expectations and the desired outcome. Tetra Tech’s project management methodology enables our team to achieve success despite the unpredictable nature of disasters. Our methodology addresses the project management areas shown in the exhibit below.

Exhibit C-1: Project Management Areas



These management areas are administered using the established project management procedures and protocols we have developed and refined over the years and numerous disaster activations. Our interactions with our clients are based on best practices that balance the need for direction of operational priority, issue resolution, and relevant information with considerations for the time availability of the client.

Procedures and Protocols

Each phase of Tetra Tech project management has documented procedures that govern the execution to provide *scalable, consistent, high quality results*. We use a systematic approach

Tab C: Project Methodology

with frequent in-process quality checks to execute our project processes. Our general project approach includes tasks in each of the phases: initiation, mobilization, execution, and closeout.

- **Initiation (Pre-Event)**
 - **Annual coordination** – Conduct annual trainings and meetings to plan and test execution protocols and identify potential risks/mitigation opportunities.
 - **Contract review** – Review contracts for understanding of contractual requirements and possible cost savings.
 - **Communication systems checks** – Verify that communication systems function as designed and reporting needs are understood.
- **Mobilization (Immediately Prior to and Following Event)**
 - **Scope, tasking, and budget** – Determine services required, performance metrics, schedule, and budget constraints.
 - **Deployment and resource requirements** – Develop work plan and safety plans. Update risk matrix for work plan specifics.
 - **Staging of equipment and resources** – Coordinate movement of required support equipment/supplies and setup of communication and information systems.
- **Execution (Post-Event)**
 - **On-boarding and training staff** – Conduct suitability for work checks and provide targeted training program based on work and safety plans.
 - **Monitoring** – Supervise field operations, quality assurance/quality control (QA/QC) in-process checks, prioritization of resource management, and project reporting.
 - **Communication** – Conduct status meetings and communicate project metrics and other pertinent information.
 - **Issue tracking/resolution** – Conduct issue identification, staff communication, and resolution tracking.
- **Closeout (Post-Event)**
 - **Documentation deliverable** – Produce and deliver required documentation to support auditing.
 - **Demobilization** – Manage reduction in staff, post-use maintenance, and movement of equipment and supplies.
 - **Audit support** – Provide continued availability of information systems to support closeout information requests.

OPERATIONAL SCHEDULE

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.

Tab C: Project Methodology

Exhibit C-2: Disaster Debris-Generating Event Operational Plan

Time	Task	Deliverables/Milestones
Preparedness		
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
H-96	Review capabilities and resources	• Contact the City and initiate daily conference call • 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.
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 temporary debris staging and reduction site (TDSRS) locations and follow up with the Texas Department of Environmental Quality (TCEQ) on permitting procedures • Estimate equipment requirements and TDSRS capacity to haul and stage debris • Prepare automated debris management system (ADMS) technology for mobilization
H-48	Monitor storm track and continue preparations	• Conduct regular meetings with City staff as requested • Confirm staging location and begin mobilization of resources • 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
H-24	Prepare final reports	• Save all critical documents and files to the network drive, USB drive, and laptop hard drive • Certify emergency road clearance equipment (in coordination with the City's debris hauler) • Determine emergency road clearance priorities

Tab C: Project Methodology

Time	Task	Deliverables/Milestones
H-0	ARRIVAL OF NOTICE EVENT/INITIATE RESPONSE TO NO-NOTICE EVENT	
Response		
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 • Begin establishing ADMS infrastructure • Begin recruiting and training monitors, project coordinators, and data staff • Initiate opening of TDSRS locations • Follow up with TCEQ on debris permits (if required) • Work with the City to establish public information protocols to respond to concerns and comments
H +48	Emergency push/ damage assessment	• 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
Recovery		
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

Tab C: Project Methodology

Time	Task	Deliverables/Milestones
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 FEMA Region 6, Texas Division of Emergency Management (TDEM), 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 Public Assistance (PA) work plan • Conclude/review preliminary damage assessments • Gather documentation for project worksheet (PW) development • Identify opportunities for mitigation • Conduct site visits
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

TECHNICAL WORK PLAN

Time and Materials

The emergency push period begins immediately following an event. Tetra Tech will work with the debris removal contractors, in coordination with City crews, to first clear the blocked roadways for emergency vehicle passage to critical facilities. Tetra Tech is prepared to assist during the push period by providing the following services:

- Documenting blocked roads that require immediate clearance

Tab C: Project Methodology

- Administering the sign-in and sign-out of labor and equipment to track time and materials (T&M) charges
- Helping staff maintain maps or databases to track road clearance progress and other essential tasks, as requested
- Maintaining documentation for reimbursement of emergency push work

On-Boarding/Hiring Approach

Immediately following the impact of a known event, Tetra Tech will establish Human Resources (HR) hiring centers in the field throughout the region in the affected areas. The hiring center provides efficient hiring and training processes that meet the stringent Tetra Tech field operation requirements and any specific requirements of our clients. The hiring center is designed to be quickly mobilized, transported, and set up to allow near immediate response for field staffing needs. The hiring center is typically staffed by three trained HR representatives and can process hiring of hundreds of staff per day. The hiring center can be quickly scaled to meet the most demanding needs for staff. The hiring center advertises locally and reaches out to local workforce centers to utilize persons seeking employment in the community.

Vehicle Certification

Tetra Tech has a proven vehicle certification procedure that complies with FEMA guidelines to maximize reimbursement for our clients. Tetra Tech will certify all trucks used in an activation via the mobile application included in our ADMS technology. Benefits of using the mobile truck certification application include **electronic volume calculations**, instant upload to the RecoveryTrac™ database to allow a QA/QC check to immediately verify the truck certification is calculated correctly, and automated photo matching of truck and driver photographs to the truck. The truck certification application allows us to complete truck certifications in **30 percent less time than with a paper-based system**.

Our disaster debris vehicle certification procedure includes the following:

- Automated truck certification form, which includes the latest FEMA guidelines on truck certification documentation and volume calculations and a bar code for automated ticket scanning
- Special vehicle notations on the truck certification form and vehicle placard, which inform tower monitors of sideboards, tailgates, or other modifications, thus discouraging debris removal contractors from fraudulently altering vehicles after certification
- Photographs of vehicles, vehicle cavities, and drivers

Exhibit C-3: Truck Audit Report

Contractor: ASHBRITT
Sub-Contractor: PAUL BUNYAN

Sub-Contractor	Truck No.	Truck ID	Cert Date	Status	Vehicle Tag	Vehicle Type
N/A	700153	73	02/26/2014 2:52 PM	ACTIVE	PVT 2195 (OH)	SELF-LOADING TRUCK

Primary Box (L x W x H): 264x101x115 = 2969460.0 Cu Inches (+)
Type: Box (L x W x H): 264x101x115 = 2969460.0 Cu Inches (+)
Type: Box (L x W x H): 76x101x36 = 278336.0 Cu Inches (+)
Total Volume: 3302366.0 Cu Inches (46.656) = 72.71 Cu Yds

Driver-Placard View Side View Back-Interior View

RecoveryTrac
73 700153
73 700153

ROW - Disposal - b210002
Complete Load - Verify Truck

Verify the truck information. If the truck information is missing, enter the Truck number, driver and capacity.

Truck #: 99992
Driver Name: Paul Frank
Capacity: 43

Cancel Scan Barcode Next

Tab C: Project Methodology

- Periodic spot checks and recertification of trucks to identify trucks altered after initial certification
- Visual inspections of motor vehicle compliance with support from a City staff member. This can be done at the time of inspection or through our QC in real-time from an office environment.

Monitoring the Removal of Debris

Tetra Tech deploys loading site monitors to monitor the activities of each debris removal crew. Loading site monitors will document the initial step when tracking debris from collection to disposal. RecoveryTrac™ load tickets document where and when debris is collected along with other required information. Tetra Tech loading site monitors will also mark where every load of debris is collected using the RecoveryTrac™ waypoint system. This information can be used by multiple entities (the City, municipalities that may fall under the City's program, debris hauler, etc.) to verify completeness and maximize project schedule.

The bullets below highlight various aspects of Tetra Tech's debris removal monitoring program.

- **Operations.** Field collection monitors report to a staging location prior to the field operations beginning for a briefing to be given by the project manager or field supervisors and the distribution of safety gear (for example, caution lights or safety vests), map books, and ADMS handheld units/debris tickets.
- **Deployment.** A field monitor is assigned to one loading unit.
- **Field Supervision.** Responsibilities of the field supervisor include training, QA/QC of work being performed, verifying load ticket accuracy, and responding to field monitor and debris contractor issues in the field.
- **Responsibilities.** Field monitors will verify the proper loading of debris into the debris removal contractor's certified loading container. Monitors will document that contractors and their subcontractors adhere to local, state and federal regulations and that they are working safely and efficiently. Field monitors often notice inconsistencies with debris removal procedures and submit them to their supervisors. If a field monitor feels there is justifiable need to stop operations, the monitor is instructed to refrain from issuing a ticket until the debris hauler supervisor and a Tetra Tech supervisor can be called in to determine the appropriate action.
- **Work Scheduling.** Tetra Tech will coordinate with the debris removal contractor's project manager to estimate the number of field monitors that will be required 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. so that the appropriate number of field monitors is dispatched.
- **Daily Closeout.** At the close of operations each day, all collection and disposal monitors will report to the staging area to clock out and turn in their ADMS handheld units.
- **Contractor Completion.** Tetra Tech will assist in completing the project efficiently and within the time lines set forth in the RFP. There are many aspects of debris removal that are outside of the monitoring firm's control but will still need to be managed. Tetra Tech will assist with managing these goals, including the following:
 - The ability of a debris contractor to respond with sufficient equipment will affect the proposed schedule. Tetra Tech will provide burn rate analysis to verify the proper

Tab C: Project Methodology

equipment is being provided. This will be adjusted as more accurate debris estimates are available.

- Invoices by the contractor need to be produced in a timely manner so that Tetra Tech can reconcile in a timely manner. Tetra Tech will work to make the contractors aware of an appropriate time frame for invoicing and will communicate with the City if deadlines are not being met.
- Deadlines for collecting debris are set to correspond with the work schedule that is based on estimated work to be completed. As damage estimates become more accurate (as is typical throughout the process), Tetra Tech will work with officials to adjust the timeline appropriately to reflect the changing estimates.

Temporary Debris Storage and Reduction Site Monitoring

Temporary debris storage and reduction site (TDSRS) locations are approved areas where debris contractors can truck eligible debris so it can be further separated or processed before being hauled to a final disposal facility. Tetra Tech can assist the City in obtaining necessary permits or approval of designated TDSRS monitoring as requested by the City. Debris is quantified by volumetric load calls. Towers are set up, and ingress and egress patterns are established. Each site will be restricted to a maximum capacity that will need to be monitored. Tetra Tech will provide a minimum of two monitors per site, which may increase or decrease based on need. The Tetra Tech monitors will be prepared to work a 12–14 hour shift, 7 days per week. Construction and demolition debris may be directly hauled to a final disposal facility. Specific documentation kept by TDSRS monitors includes the following:

- **Load Ticket.** The load ticket is used to document debris removal.
- **Disposal Monitor Log.** The disposal monitor log is used as backup documentation (and serves as a fail-safe if any documentation is missing).
- **Scale Manifest Tickets.** If the debris hauling contract payment method is weight-based, tickets generated by the existing scales at the City's TDSRS will be digitized and cataloged by Tetra Tech.
- **Incident Report.** The incident report is used to document anything out of the ordinary while monitoring at the TDSRS, including property damage, arguments, unsafe practices, and personal injury.
- **Photographic Documentation.** Tetra Tech disposal supervisors will photograph a TDSRS frequently in order to create a visual timeline of the site.
- **QA/QC of Field Tickets.** TDSRS monitors must review and correct errors made by loading site monitors in the field.

Due to the critical nature of load calls and the impact they can have on a project, Tetra Tech has developed a thorough Disposal Monitor Training Program that will be reviewed by every disposal site monitor for consistency in load calls. After a load call has been made, the disposal site monitor will issue the truck driver a printed Tetra Tech ADMS ticket.

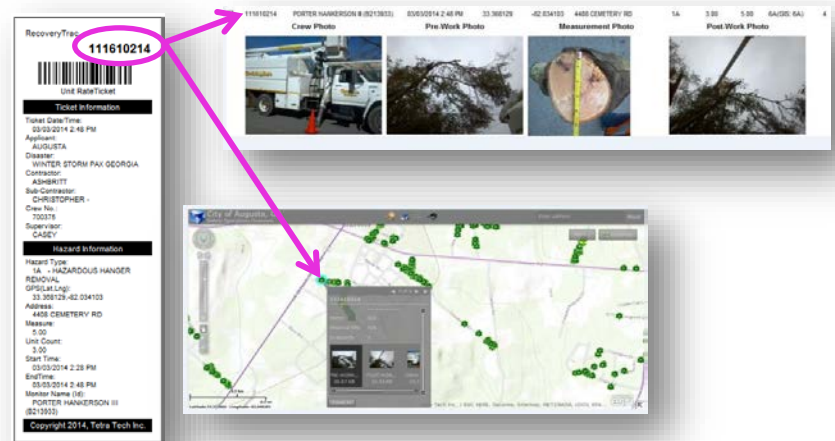
Tab C: Project Methodology

Hazardous Tree Removal

Established FEMA guidance 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 can utilize RecoveryTrac™ ADMS technology to document all hazardous tree and hanger removal operations. Additionally, Tetra Tech 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 District's contractual agreement with the contractor.

Exhibit C-4: Real-Time Ticket Report



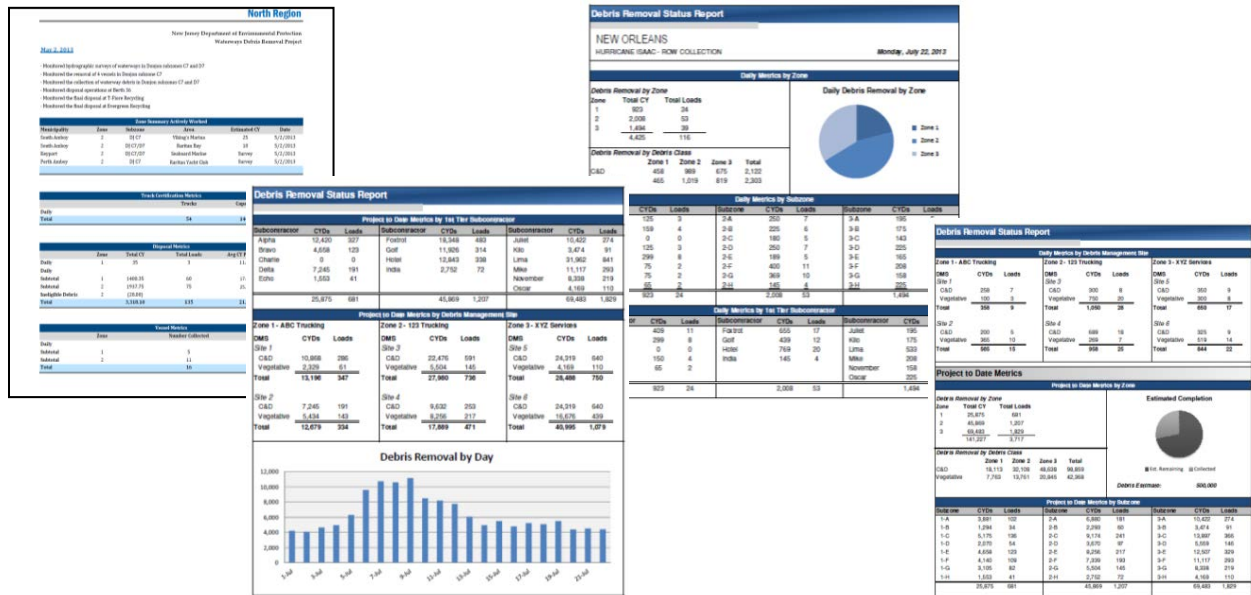
Daily Reporting Metrics

Tetra Tech has a suite of reports that are automated from RecoveryTrac™ and available in real-time via PC, tablet, or even smart phone. Our daily reporting metrics include but are not limited to the following:

- Daily operations cost accounting
- Debris contractor metrics and operations time by truck
- Daily load tickets and cumulative volumes
- Daily reporting of ongoing work and completed areas of debris removal activities
- Fiscal reports, including:
 - Cost of monitoring operations (weekly or monthly)
 - Hauling cost data (weekly or monthly)

Tab C: Project Methodology

Exhibit C-5: Sample Custom Reports Developed



Another key feature of the Tetra Tech ADMS technology is that it allows field monitors to report incidents and provide supporting photographs in real-time. These reports are then provided in real-time geospatially or exported into Excel sheets daily and are available to the City, local governments, and the debris contractor. As monitors complete incident reports in the field, the information and supporting photographs are uploaded to the reporting server.

Depending on the type of incident, priority e-mails may be sent out by the reporting server to City representatives, Tetra Tech 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 identifying unresolved contractor damages before the completion of the program.

Exhibit C-6: Incident Reporting Tool

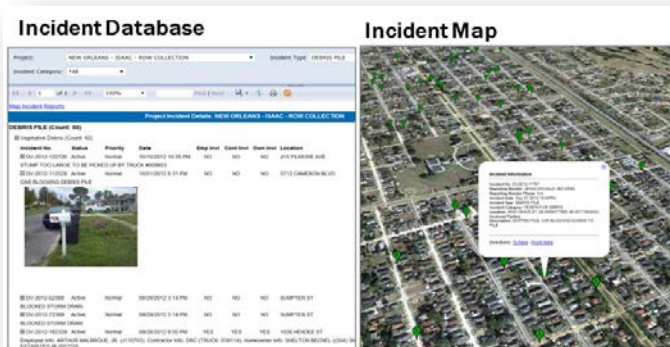
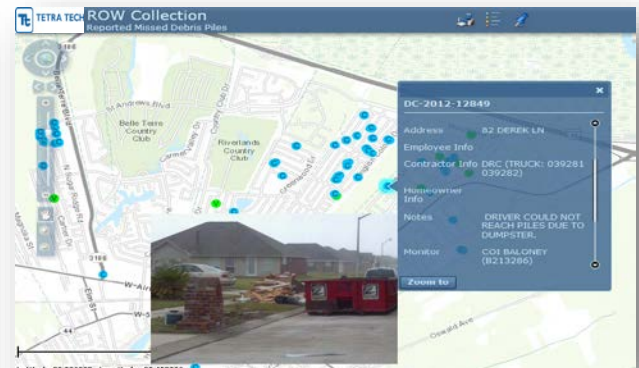


Exhibit C-7: Missed Piles Tracking



Project Manager's Daily Report

In addition to the standard daily reports, Tetra Tech’s project management team will also provide a daily project manager’s report. The daily project manager’s report will be submitted to the City debris manager or their authorized representative daily. The project manager’s report will include the following:

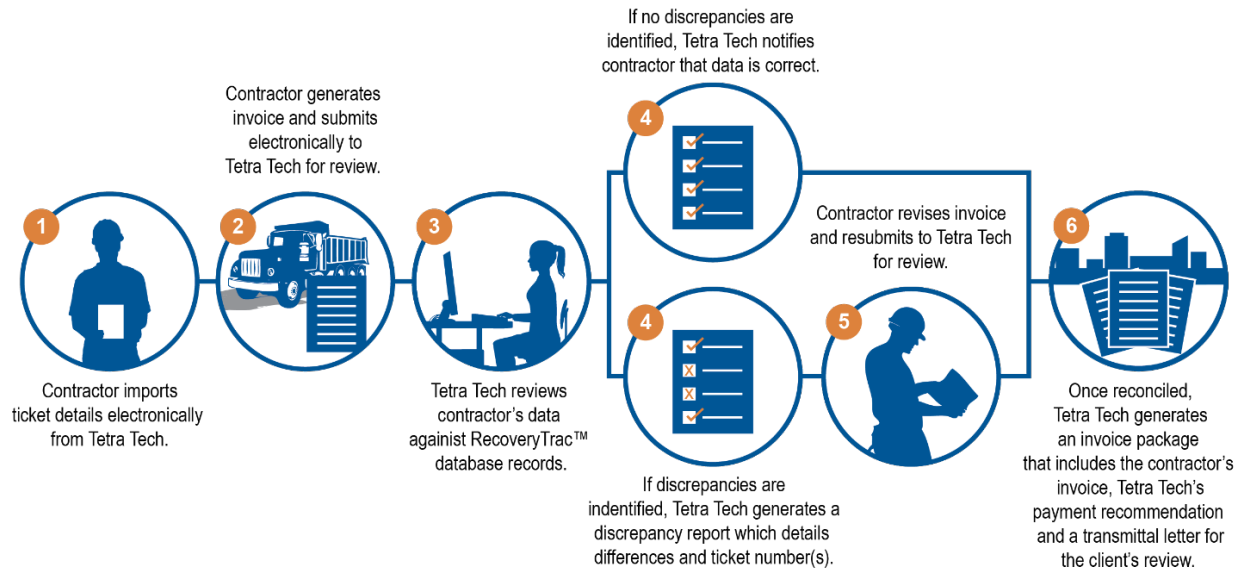
- Volumes of debris category collected
- Debris monitor metrics
- Maps depicting geographic areas where debris has been removed
- Tetra Tech's overall progress in completing task orders and estimated completion date
- Coordination issues (if any) with the contractor
- Damage claims or incident reports

Contractor Reconciliation

To expedite contractor invoice reconciliation efforts, Tetra Tech requires copies of all primary debris hauler contracts with the City. After reviewing the contracts, Tetra Tech will set up the RecoveryTrac™ database to generate transactions for tickets issued to each debris contractor. Tetra Tech will then meet with each primary debris contractor to review the debris contractor reports that will be generated automatically through RecoveryTrac™. The debris contractor reports will provide each contractor with sufficient data to reconcile with their subcontractors as well as generate invoices for payment by the City. Several QA and QC checks will be conducted on data before it is provided to the contractor. The application of RecoveryTrac™ Mobile significantly reduces the amount of time needed for a contractor to generate an invoice and for the subsequent invoice reconciliation with Tetra Tech. The step-by-step process for contractor invoice reconciliation in a RecoveryTrac™ project is outlined below.

Tab C: Project Methodology

Exhibit C-8: Contractor Invoice Reconciliation Process



Project Closeout

Upon project completion, Tetra Tech will prepare both physical records as well as RecoveryTrac™ database digital documentation for submittal to the City. Physical documentation such as load tickets, truck certificates, and field logs are organized and packaged in a manner conducive to easy retrieval. In addition to the physical documentation, Tetra Tech provides a final data export of the RecoveryTrac™ database, which serves to hasten any forthcoming auditing efforts. The records extracted from the database contain a digital copy of the ticket given to the contractor and the corresponding supporting photographic and/or supplemental documentation, truck certificate images and corresponding photographic documentation, and digital copies of all invoice payment recommendation packages that have been issued for the project. The ticket line item data is conveniently hyperlinked so that a simple click will yield the desired images. The RecoveryTrac™ final export data may be provided either via DVD or external hard drive.

TETRA TECH		Project Closeout Checklist	
Client Information		Program ☐ All Programs	
Client Name	Client Address	Tetra Tech Project Manager	Phone
Client Project Manager	Phone	Tetra Tech Project Manager	Phone
FIELD OPERATIONS			
☐ Field monitoring activities concluded			
☐ Field equipment returned and inventoried			
☐ Verify field monitor breakdowns and logs are reviewed and submitted			
☐ Coordinate with Logistics for demolition staff and equipment			
INCIDENT DISPOSITION			
☐ Coordinate with contractors and vendors to resolve and complete damage reports			
☐ Coordinate with Client to address and close any outstanding complaints			
☐ Resolve identified Quality Management System deficiencies			
☐ Prepare final incident report with supporting incident data report and submit for review approval			
FINANCIAL			
☐ Coordinate with contractors and vendors to resolve any remaining unbilled transactions			
☐ Coordinate with contractors and vendors to resolve and finalize outstanding invoices for rendered work			
☐ Coordinate submission of Letter of Invoice Finalization to the Client			
☐ Verify release for contractor and vendor invoices are released			
☐ Verify debris monitoring sub-contractor invoices are paid			
☐ Verify contractor expenses have been submitted for rendering project accounting			
CLIENT DELIVERABLES			
☐ Coordinate with Client to obtain desired electronic data export format(s)			
☐ Collect and inventory required paper documentation and prepare transmittal for Client acceptance			
☐ Perform data export(s) and prepare user documentation			
☐ Prepare and review project electronic documentation to project action per Tetra Tech project action policy			
☐ Perform Program Manager review of project deliverables and correct noted deficiencies			
☐ Present documentation package to Client for acceptance and approval			
COMMENTS / NOTES			

RecoveryTrac™ Automated Debris Management System

In today's technology-driven society, paper-based systems are quickly becoming obsolete. Recognizing the migration to electronic-based systems, Tetra Tech has invested heavily in research and development to streamline the debris collection documentation with a focus on minimizing the cost to our clients while improving their visibility into debris project operations. This state-of-the-art technology has already shown to increase the efficiency and improve the management of debris removal efforts for many of our clients. RecoveryTrac™ is the result of

Tab C: Project Methodology

these efforts. RecoveryTrac™ is a scalable and fully featured disaster management application designed specifically to address the operational challenges faced during a disaster recovery project. Our proprietary ADMS technology, 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. The end result is accurate, real-time debris removal **information made available minutes after completion instead of the next day as with paper-based systems.**

RecoveryTrac™ is **one of only three systems validated** by the U.S. Army Corps of Engineers (USACE), and is the ADMS preferred by the USACE debris contractors, providing ADMS services to 6 of 8 USACE districts globally.

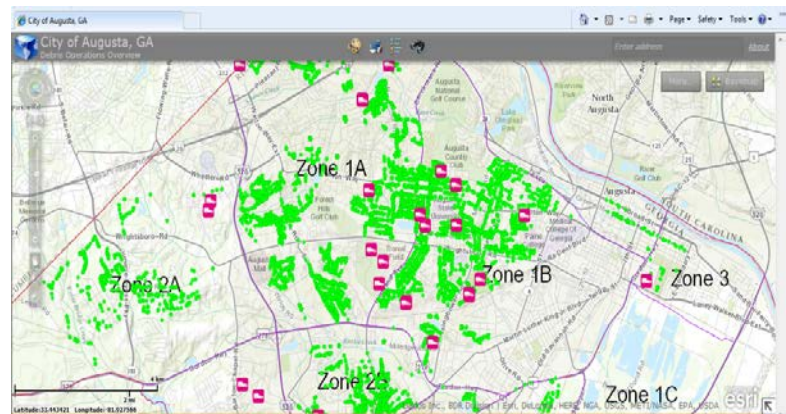
RecoveryTrac™ is owned by Tetra Tech and is a proven and full-featured electronic ticketing and disaster debris management system.

- USACE ADMS compliant
- 1,250 units immediately available (owned, not rented or leased)
- Connected or disconnected operation independent of cellular network issues
- Expedites invoice reconciliation
- Provides real-time GIS reports and pass map tracking in a web-based portal
- Advanced issue management toolset
- Automated photograph and GPS capture
- Intuitive and user-friendly and highly scalable

Real-Time Information and Visualization Increases Efficiency

Over the last several years, the cellular industry has invested heavily in the hardening of infrastructure in areas most susceptible to environmental disasters. We have taken advantage of these improvements by partnering with the Tier 1 providers to get the information from the field as quickly as possible, ideally in real-time. Field devices are constantly looking for connectivity to immediately upload collected information. Once the field data is uploaded, RecoveryTrac™ geospatial services provide rich information and visualization of the field data. Using the EOC operation board concept, users can visualize everything from damage concentrations to field debris equipment locations and more. The end result is better information, resulting in better decisions and less waste.

Exhibit C-9: Previous Collection and Current Truck Location



Coordinated Reporting and Quality Control

RecoveryTrac™ ADMS can provide the one-stop information in a consistent, easily consumed format that can provide a City -wide operations status picture. These data feeds are in real-time; there is no spreadsheet to import and no conversion—just a single GIS web data service to pull required information. Some examples of data included:

Tab C: Project Methodology

- Road Clearance Status (Pass Map)
- Hazard Removal Locations
- Debris Pickup Locations
- Truck and Monitor Locations
- Reported Damage Locations
- Debris Removed

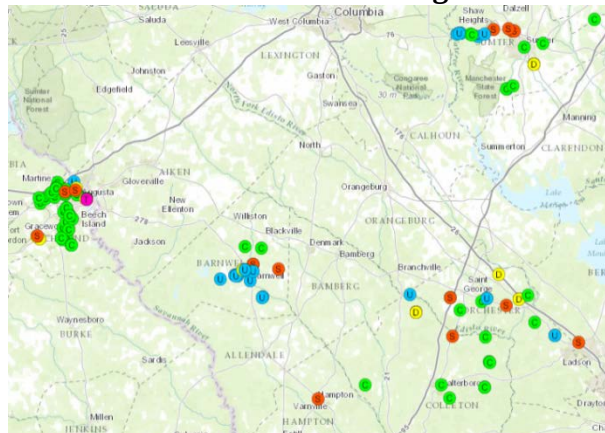
Data managers assigned to continuously monitor the information flowing into the system check for potential problems and dispatch supervisors to respond to the problem. The system monitoring panel shows real-time statistics and potential problems for operations based on exhaustive in-process quality checks that occur continually. The exhibit below details how we use RecoveryTrac™ ADMS to meet our quality standards using the direct monitoring and immediate feedback technique.

Debris Tracking

RecoveryTrac™ allows real-time access and visibility into field operations. At each debris collection point, the roadway monitor marks the “waypoint” or location of the debris pile to collect GPS coordinates. The map below 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.

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 in Exhibit C-10.

Exhibit C-10: Monitoring Locations



GRANT MANAGEMENT CONSULTING SERVICES

As one of the nation’s premier providers of hazard mitigation, emergency preparedness, and response and recovery services, Tetra Tech is dedicated to helping our clients plan for, respond to, and recover from natural and human-caused disasters. Tetra Tech maintains a multidisciplinary staff with experience in disaster response and recovery, grant administration, and emergency management. Many are first responders, former state and local emergency management directors, and consultants who have been at the forefront nationally in developing strategies and plans in support of the U.S. Department of Homeland Security’s (DHS) National Recovery Goals. ***Tetra Tech offers a complete, end-to-end solution that empowers our clients to protect their most precious assets in times of chaos.***

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 Public Assistance (PA) Program, including multiple, large PA programs for the States of 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. ***Our team’s record of success spans over 300 state and local government clients in response to over 50 declared presidential disasters, representing the recovery of more than \$4 billion in disaster grant funds. These activations have yielded grant program management engagements resulting in clients not only garnering grant funds but in retaining 99.8 percent of the funds received.***

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 Program¹ (FMA)
- FEMA 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.

EMERGENCY MANAGEMENT PLANNING AND TRAINING

In addition to response and recovery services, our team is one of the nation's premier emergency preparedness firms, with a staff of industry experts located throughout the United States. Our team members are recognized leaders in preparedness, having performed hundreds of planning, training, and exercise projects for local, state, and federal agencies, quasi-governmental organizations, institutions of higher education, private-sector businesses, and non-profit organizations. Many of our team members have previously served as state and local emergency managers and are acutely aware of how important planning and training are to maintaining an optimal level of readiness. Since 2001, our team has conducted over 300 emergency preparedness projects while ensuring compliance with current local, state, federal, and industry standards. Listed below are the preparedness programs Tetra Tech can offer.

- Continuity of operations, continuity of government, and business continuity planning
- Cybersecurity planning
- Disaster debris management planning
- Emergency operations planning/comprehensive emergency management planning
- Incident-specific and function-specific planning
- Hazard mitigation planning
- Threat, vulnerability, and risk assessment
- Training and exercises

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



RFP 17-042 Debris Monitoring Service - Hourly Rate Sheet
City of League City

POSITIONS	HOURLY RATES
Senior Program Manager	\$175.00
Project Manager	\$ 69.00
Operations Manager	\$ 59.00
Field Manager	N/A (duplicate position)
Field Supervisor	\$42.00
Field Monitor	\$33.00
Debris Site / Tower Monitor	\$33.00
Load Ticket Data Entry Clerk	\$ 0.00
Collection Monitor	N/A (duplicate position)
Citizen Drop-Off Monitor	\$31.00
Billing / Invoice Manger	\$65.00
Billing / Invoice Analyst	\$45.00
Project Inspector (housing)	\$55.00
Project Assistant	\$42.00
Field Coordinator (Crew Monitor)	N/A (duplicate position)
Senior Project Inspector	\$125.00
Waste Management Specialist	\$ 95.00
Senior Public Assistance – Grant Management Consultant	\$135.00
Principal In Charge	\$ 95.00
Public Assistant Consultant	\$115.00
Public Assistant Consultant Aide	\$ 95.00
Project Coordinator	\$ 34.00
Debris Site Security	\$ 29.00
Safety Manager	\$ 65.00
Data Manager	\$ 49.00
Data Support Personnel	\$ 32.00
Marine Debris Monitor	\$ 38.00
Schedules / Expenditures (Logistics)	\$ 45.00
Environmental Specialist	\$ 95.00
Project Inspector (Infrastructure)	\$110.00
Residential Monitor	N/A (duplicate position)
Automated Ticket Specialist	\$ 55.00
Aerial Photographer	\$ 45.00
FEMA Specialist	\$145.00
Administration Assistant	\$ 42.00
Call Center Staff	\$ 29.00
Senior Technical Specialist	\$145.00
Fire / HAZMAT Subject Matter Expert / Trainer	\$125.00
OTHER REQUIRED POSITIONS: Proposer may include other positions, with hourly rates, as needed.	

Tab E: References

TAB E: REFERENCES

Tetra Tech is proud of the long-term relationships we have developed with our clients and encourages the City of League City (City) to contact each of our references to obtain comments on the quality of services we provide. Additional references can be provided upon request.

Client Name/Contact & Title	Phone/Email	Project Dates
Montgomery County, Texas Miranda Hahs, Senior Emergency Management/Homeland Security Planner	(936) 523-3903 Miranda.hahs@mctx.org	May 2016 – August 2016
City of Friendswood, Texas Brian Mansfield, Assistant Emergency Management Coordinator	(832) 875-2365 b.mansfield@ci.friendswood.tx.us	November 2015
Fort Bend County, Texas Jeff Braun, Emergency Management Coordinator	(281) 342-6185 Jeff.Braun@fortbendcountytexas.gov	May 2016 – May 2017
City of Albany, Georgia Phil Roberson, Assistant City Manager	(229) 357-0667 Proberson@dougherty.ga.us	January 2017 - Present
City of South Daytona, Florida Les Gillis, PE, Director of Public Works	(386) 322-3080 lgillis@southdaytona.org	October 2016 – December 2016

CONFLICT OF INTEREST QUESTIONNAIRE

FORM CIQ

For vendor doing business with local governmental entity

This questionnaire reflects changes made to the law by H.B. 23, 84th Leg., Regular Session.

This questionnaire is being filed in accordance with Chapter 176, Local Government Code, by a vendor who has a business relationship as defined by Section 176.001(1-a) with a local governmental entity and the vendor meets requirements under Section 176.006(a).

By law this questionnaire must be filed with the records administrator of the local governmental entity not later than the 7th business day after the date the vendor becomes aware of facts that require the statement to be filed. See Section 176.006(a-1), Local Government Code.

A vendor commits an offense if the vendor knowingly violates Section 176.006, Local Government Code. An offense under this section is a misdemeanor.

OFFICE USE ONLY

Date Received

1 Name of vendor who has a business relationship with local governmental entity.

None

2 ☐ Check this box if you are filing an update to a previously filed questionnaire. (The law requires that you file an updated completed questionnaire with the appropriate filing authority not later than the 7th business day after the date on which you became aware that the originally filed questionnaire was incomplete or inaccurate.)

3 Name of local government officer about whom the information is being disclosed.

None

Name of Officer

4 Describe each employment or other business relationship with the local government officer, or a family member of the officer, as described by Section 176.003(a)(2)(A). Also describe any family relationship with the local government officer. Complete subparts A and B for each employment or business relationship described. Attach additional pages to this Form CIQ as necessary.

None

A. Is the local government officer or a family member of the officer receiving or likely to receive taxable income, other than investment income, from the vendor?

☐ Yes

☐ No

B. Is the vendor receiving or likely to receive taxable income, other than investment income, from or at the direction of the local government officer or a family member of the officer AND the taxable income is not received from the local governmental entity?

☐ Yes

☐ No

5 Describe each employment or business relationship that the vendor named in Section 1 maintains with a corporation or other business entity with respect to which the local government officer serves as an officer or director, or holds an ownership interest of one percent or more.

None

6 ☐ Check this box if the vendor has given the local government officer or a family member of the officer one or more gifts as described in Section 176.003(a)(2)(B), excluding gifts described in Section 176.003(a-1).

7 

Signature of vendor doing business with the governmental entity
Tetra Tech | VP/Operations Manager

07/10/2017

Date



PROPOSER CERTIFICATION AND ADDENDA ACKNOWLEDGEMENT

By signature affixed, the proposer certifies that neither the proposer nor the firm, corporation, partnership, or institution represented by the proposer, or anyone acting for such firm, corporation, or institution has violated the anti-trust laws of this State, codified in Section 15.01, et seq., Texas Business and Commerce Code, or the Federal antitrust laws, nor communicated directly or indirectly the bid made to any competitor or any other person engaged in such line of business.

Proposer has examined the specifications and has fully informed themselves as to all terms and conditions. Any discrepancies or omissions from the specifications or other documents have been clarified with City representatives and noted on the bid submitted.

Proposer guarantees product offered will meet or exceed specifications identified in this RFP.

Proposer must initial next to each addendum received in order to verify receipt:

Addendum #1 JB Addendum #2 JB Addendum #3 _____
Addendum #4 _____ Addendum #5 _____ Addendum #6 _____

Proposer Must Fill in and Sign:

NAME OF FIRM/COMPANY: Tetra Tech, Inc.
REPRESENTATIVE's NAME: Jonathan Burgiel
REPRESENTATIVE's TITLE: Vice President/Operations Manager
MAILING ADDRESS: 2301 Lucien Way, Suite 120
CITY, STATE, ZIP: Maitland, FL 32751
PHONE & FAX NUMBERS: (407) 342-2282 (alternate: Betty 407-803-2551) (321) 441-8501 fax
E-MAIL ADDRESS: jonathan.burgiel@tetrattech.com (alternate: betty.kamara@tetrattech.com)
AUTHORIZED SIGNATURE: 
DATE: July 10, 2017