

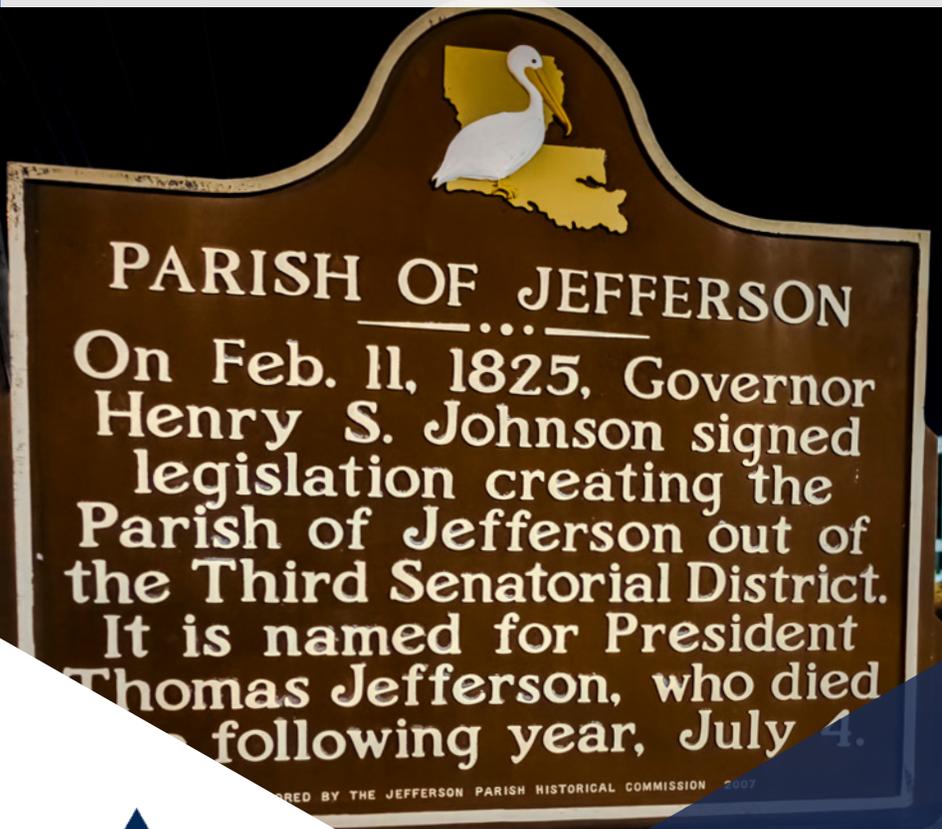
PROVIDE CONSULTING SERVICES FOR DISASTER RECOVERY AND FEMA PUBLIC ASSISTANCE

FOR THE JEFFERSON PARISH DEPARTMENT OF PUBLIC SAFETY GRANTS & ADMINISTRATION

RFP-0448

October 14, 2022

RESPONSE TO REQUEST FOR PROPOSAL 0448



PROPOSED TO:
JEFFERSON PARISH
Department of Purchasing,
200 Derbigny Street, Suite 4400,
Gretna, LA 70053
(504) 364-2678

PROPOSED BY:
APTIM ENVIRONMENTAL & INFRASTRUCTURE, LLC
4171 Essen Lane
Baton Rouge, LA 70809

The information contained in this proposal contains proprietary and confidential financial and business information and shall not be used or disclosed, except for evaluation purposes, without the written consent of Aptim Environmental & Infrastructure, LLC, provided that if a contract is awarded to Aptim Environmental & Infrastructure, LLC as a result of or in connection with the submission of this proposal, the requester shall have the right to use or disclose the data to the extent provided in the contract. This restriction does not limit the requester's right to use or disclose any technical data obtained from another source without restriction.



A – COVER LETTER

A. Cover Letter

October 14, 2022

Shana Folse
Jefferson Parish
Department of Purchasing
200 Derbigny Street, Suite 4400
Gretna, LA 70053

Subject: Response to RFP—Consulting Services for Disaster Recovery and FEMA Public Assistance for the Jefferson Parish Department of Public Safety Grants & Administration

Dear Ms. Folse:

As a firm headquartered in Louisiana, we are proud to be a part of the 433,000+ residents that call Jefferson Parish home. Surrounded by various bodies of water from canals and bayous to that of Lake Pontchartrain and the Mississippi River, the risks of living in the area are not lost on us. We pride ourselves on being resilient; it's become our way of life. Tragedy strikes; we recover and rebuild. Storms have changed; their timing, frequency and destructive forces are increasing at an unprecedented rate. The recovery processes of the Federal Emergency Management Agency (FEMA) have changed and will continue evolving.

It is vital that we embrace a mindset of "continuous improvement." This requires a fresh approach from a team that is at the forefront of these changes; a provider who has helped to shape the latest policy, can offer strategic advice across financial, programmatic, and operational sectors, and offers innovative and resilient solutions. It is time to set our eyes on mitigation; we can't stop a storm from coming, but by shifting our approach we help vulnerable communities increase their resilience thereby reducing risks. To support real-time effective and efficient solutions by expertise across disparate impacted sectors, deployment of resources in the field must be dynamic to integrate Response, Recovery and Resiliency solutions.

With a deep understanding of the Parish, and how quickly even just an afternoon rainstorm can cause extensive devastation and loss of life. We believe APTIM is best suited to provide broad-based support services for four primary reasons:

48-hour Rapid Response Capability and Capacity – We offer unparalleled 48-hour rapid response capability and capacity, built with a Louisiana-based, full-time resident workforce of professionally trained and certified experts, led and advised by leaders with proven State and local response, recovery, and resiliency experience in disaster field operations, And FEMA Public Assistance based on federal and state requirements, policies and laws.

- ▶ The APTIM Team's capacity is over 17,000 and rising. Unlike many of our competitors, we do not primarily rely on a workforce of 1099 and/or part-time temporary employees. Instead, our cadre is built upon our Louisiana-based resident full-time employees of our local offices across the State. They work every day in Jefferson Parish and local communities, providing services to governments, businesses, and residents that total more than \$2B.

- ▶ APTIM Team offers a full spectrum of professional capabilities and certifications, and hands-on knowledge of Federal policies and programs that support State and local emergency response, recovery, mitigation, and resiliency tasks. Our Team includes former State and local Grant Administrators and Senior Policy Advisors, professional engineers, architects, community planners, economic development specialists, environmental technicians, building science, and building code specialists. All have years of working experience and intimate knowledge of key Federal programs that are often used to fund disaster recovery efforts such as FEMA Public Assistance (PA); HUD's Community Development Block Grant – Disaster Recovery (CDBG-DR); Individual Assistance (IA) and Hazard Mitigation Grant (HMGP) programs; and others through the Economic Development Administration (EDA), Small Business Administration (SBA), Federal Highway Administration (FHWA) and U.S. Department of Agriculture (USDA), for example.
- ▶ The benefits of our approach present significant value and efficiency for the Parish. We increase not only the Parish's ability to rapidly respond to disasters, but also to build resiliency over the long term – and for the next event. APTIM's combined capabilities in response, recovery, mitigation, insurance, and preparedness offer an integrated holistic approach that can spur resilient performance-improving innovations and stop actions under stressful environments that can later prove ineffective and costly, both financially and politically.

Integrated response and recovery approach – We offer an integrated response, recovery, mitigation, and resiliency approach that we have utilized to assist clients recovering from recent disasters such as Hurricane Ida to address emerging disaster paradigms and navigate changing Federal disaster assistance landscapes. Our recovery approach accounts for these new paradigms by integrating recovery principles into response operations. This approach helps to promote performance of response operations in a way that will enable entities to efficiently maximize and expedite recovery once the response phase has ended.

- ▶ The recent hurricanes, wildfires, and tornadoes that struck our nation and beyond highlight the challenges and risks of an emerging new disaster paradigm. Hurricane Michael, for example, transformed within 72 hours from a tropical depression into a near Category 5 hurricane, showing how little time agencies in charge of public safety may have to prepare public facilities and warn residents to harden homes and businesses before evacuating from deadly storm surge. The speed of the wildfires that engulfed California's Sonoma County reinforced this truth, with over 5,000 homes burned within less than four hours which has drastically affected the long-term financial recovery of the County.
- ▶ Like Michael, Hurricane Florence demonstrated how no one and no place can be assumed safe – regardless of how far and high they are from the shorelines and floodways, or how early or late or rare they are in the seasons or paths of hurricanes, tornadoes, or wildfires. Superstorm Sandy catastrophically damaged and flooded long-established neighborhoods in New York that had never experienced or anticipated such a disaster.
- ▶ The triple forces of Hurricanes Harvey, Irma, and Maria (collectively, HIM) made it clear that no communities, urban or rural, are too small to escape or too large to fail. The City of Houston was flooded by 50 inches of rain over four days which no amount of building hardening could have protected – and called into attention how building codes and development practices will need to change. And millions of people in Puerto Rico suffered losses of electricity, drinking water, and telecommunications for numerous months, if not years.

- ▶ Along with the new disaster paradigm, the Federal government is changing its perspective and approach to address growing disaster risks and increasing operational costs. As the frequency and severity of natural and manmade disasters mount, and the resultant costs in program assistance and program delivery rise exponentially (e.g., HIM has cost the FEMA PA program as much as the last three decades of presidentially declared disasters), FEMA has increased emphasis on incentivizing local mitigation (e.g., Section 428) and enhancing state capacity to manage disaster grants and programs in an effort to curtail costs from disaster impact and disaster operations. The passing of the Disaster Response Recovery Act (DRRA) in 2018 supports this approach with increased Federal investments for state and local pre-disaster mitigation projects. In addition, FEMA is moving towards an outcome-focused, sector approach for organizing Federal, state, local, and nongovernmental organizations to promote whole community collaboration, innovative recovery solutions, and maximization of limited resources.
- ▶ APTIM is positioned to assist Jefferson Parish with navigating the new Federal landscape and secure disaster support amid growing need to reduce assistance and delivery costs. Our team has been supporting the very development and implementation of these new concepts for the past 15 years, beginning with the National Disaster Recovery Framework (NDRF) in 2008, and continuing with the interim guidance for sector approach and stakeholder engagement strategy for Federal and state/local partners. Our team also supported FEMA in designing and piloting the current business model for FEMA PA program delivery, which seeks to promote an applicant-centric and user-friendly process based on a single FEMA point of contact. Thinking strategically and collaboratively across governmental and nongovernmental partners leverages dollars, expertise, and resources to develop solutions specific to the culture, community and environment impacted by disaster.

Minimize de-obligation risk – We bring an intimate understanding of the key funding de-obligation issues. We provide proven playbooks for minimizing costly de-obligation risks and maximizing disaster assistance funding opportunities, established, and tested in Louisiana, Florida, Texas, New York, California, Puerto Rico, and the U.S. Virgin Islands.

- ▶ Funding de-obligation risks have increased dramatically since 2010. States and localities that failed disaster recovery audits by the Department of Homeland Security (DHS) Office of Inspector General (OIG) found themselves liable to pay back Federal funds for incidents that happened years if not decades earlier. The Florida Association of Counties reported, for example, that while seven counties were identified in 2010 to owe FEMA and the State of Florida \$7.6M due to audit claims, de-obligation recommendations would rise to nearly \$100M for Florida by the summer of 2014. And this trend is likely to continue as FEMA finds itself under pressure from Congress, media, and the DHS OIG.
- ▶ In a 2016 report, Summary and Key Findings of Fiscal Year 2016 FEMA Disaster Grant and Program Audits, the OIG found “FEMA did not manage disaster relief grants and funds adequately and did not hold grant recipients accountable for properly managing disaster relief funds,” with “persistent problems such as improper contract costs, and ineligible and unsupported expenditures as examples of this continued failure.” The OIG recommended that FEMA disallow \$1.64B, or 15% of the \$10.9B in questioned cost between FYs 2009 to 2015, and \$155.6M, or 23% of the \$686M for FY2016 audited. In conclusion, the OIG emphasized that since “the average amount budgeted for the disaster relief fund exceeded more than \$10B per year” from

FY 2009 to FY 2016, “with FEMA grants comprising a large portion of that amount...(and) persistent problems throughout FEMA’s grant process.... billions of taxpayer dollars remain at risk.”

- ▶ The APTIM Team has developed and delivered playbooks for many states and localities to minimize de-obligation risks and maximize available disaster assistance. In the aftermath of the 2017 hurricane season, the APTIM Team advised local counties and municipalities on how to properly acquire and contract vendor services, delineate and document costs, and determine and prove eligibility of work needed and performed. Feedback and lessons learned from this work helped the APTIM Team to further refine our recovery playbook that all state and local governments can use to prevent de-obligation risky actions and decisions.

Strategic advice for whole community recovery – With an intense response operation providing relief in many areas, recovery support must be similarly impactful - a recovery process that provides an opportunity to not only repair what was damaged but also address some of the systemic challenges confronting a community. Therefore, APTIM is prepared to support assisting communities to rebuild infrastructure and economies in a way that allows them to become more resilient and sustainable.

Our cadre is led and advised by proven emergency management professionals and experts in key sectors such as economics, housing, and infrastructure systems. Our team has reviewed the billions of dollars that have been spent on the recovery efforts for Superstorm Sandy and understand the risks associated with potential de-obligation; help shape recovery policies that are in synch with FEMA’s lessons learned from the 2017 hurricane season; and strategically advise the State on the financial health of its communities if struck by a disaster, considering potential impacts before, during and after the disaster.

As Sr. Vice President of Critical Infrastructure at APTIM, I am authorized to commit the APTIM Team to perform the services described in the Request for Proposal (RFP); and negotiate a contract with the Parish. I understand that I may be contacted regarding the content of this proposal. If you have additional questions or need more information, please contact me at 973.615.6635 or william.deane@aptim.com . Thank you for an opportunity to submit our qualifications to serve Jefferson Parish.

Sincerely,



Aptim Environmental & Infrastructure, LLC
William Deane, Senior Vice President

CORPORATE RESOLUTION

EXCERPT FROM MINUTES OF MEETING OF THE BOARD OF DIRECTORS OF

INCORPORATED.

AT THE MEETING OF DIRECTORS OF Aptim Environmental & Infrastructure, LLC
INCORPORATED, DULY NOTICED AND HELD ON September 12, 2022,
A QUORUM BEING THERE PRESENT, ON MOTION DULY MADE AND SECONDED. IT WAS:

RESOLVED THAT William Deane, BE AND IS HEREBY
APPOINTED, CONSTITUTED AND DESIGNATED AS AGENT AND ATTORNEY-IN-FACT OF
THE CORPORATION WITH FULL POWER AND AUTHORITY TO ACT ON BEHALF OF THIS
CORPORATION IN ALL NEGOTIATIONS, BIDDING, CONCERNS AND TRANSACTIONS WITH
THE PARISH OF JEFFERSON OR ANY OF ITS AGENCIES, DEPARTMENTS, EMPLOYEES OR
AGENTS, INCLUDING BUT NOT LIMITED TO, THE EXECUTION OF ALL PROPOSALS, PAPERS,
DOCUMENTS, AFFIDAVITS, BONDS, SURETIES, CONTRACTS AND ACTS AND TO RECEIVE
ALL PURCHASE ORDERS AND NOTICES ISSUED PURSUANT TO THE PROVISIONS OF ANY
SUCH PROPOSAL OR CONTRACT, THIS CORPORATION HEREBY RATIFYING, APPROVING,
CONFIRMING, AND ACCEPTING EACH AND EVERY SUCH ACT PERFORMED BY SAID AGENT
AND ATTORNEY-IN-FACT.

I HEREBY CERTIFY THE FOREGOING TO BE A TRUE
AND CORRECT COPY OF AN EXCERPT OF THE
MINUTES OF THE ABOVE DATED MEETING OF THE
BOARD OF DIRECTORS OF SAID CORPORATION,
AND THE SAME HAS NOT BEEN REVOKED OR
RESCINDED.



J. Todd Kindler
ASSISTANT SECRETARY

DATE

10/10/22



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C – TECHNICAL PROPOSAL

C. Technical Proposal

C.0 Project Understanding

It is our understanding that the Jefferson Parish Public Safety Grants and Administration Department (Parish) seeks an experienced consulting firm to assist in procuring Federal Emergency Management Agency (FEMA) Public Assistance (PA), based on federal and state requirements. **APTIM will provide broad-based support services designated to help maximize federal funding**, expedite the recovery process, and retain funds during the closeout process.

Our staff will perform the following activities to ensure project success, accountability, and transparency:

- ▶ Ensure Parish disaster recovery and restoration processes comply with laws, regulations, and guidelines to maximize reimbursement for eligible disaster expenditures and to minimize timing for reimbursement.
- ▶ Develop and execute processes for obtaining, analyzing, and gathering field documentation; including, but not limited to, records related to procured goods and services, timekeeping, and force account labor and equipment.
- ▶ Possess the expertise and be able to prepare FEMA PA emergency and permanent work project estimates including, but not limited to cost estimating, developing detailed damage descriptions and dimensions, scope of work, and accurate force account labor and equipment summary reports.
- ▶ Assist parish departments with services post-impact to perform damage assessments, inspections, and project management services from impact to repair.
- ▶ Collaborate with federal state and local staff, as needed, on project formulation, including damage assessments, information gathering, project development, preparation of project worksheets, and other project submittals to Governor's Office of Homeland Security and Emergency Preparedness (GOHSEP) and/or FEMA.
- ▶ Coordinate and interface with engineering and design efforts for repair and/or construction of damaged facilities and infrastructure that will comply with FEMA eligibility and cost reasonableness determinations. Provide oversight of repair/construction efforts to ensure work complies with applicable Project Worksheets (PWs) and related FEMA PA grant requirements and guidelines.
- ▶ Identify and address inappropriate insurance reductions and ensure insurance policy compliance with federal and state regulations.
- ▶ Develop strategies and maximize formulation of 406 hazard mitigation projects.
- ▶ Possess the expertise and assist in all disaster-recovery financial reimbursement and reporting processes required by FEMA, state, or other agency. Ensure there are no duplications of submission if varying agencies are involved.

Affirmative Statement

APTIM has reviewed the Scope of Work/Services and understands the nature thereof and is willing and capable of providing the services thereof.

- ▶ Possess the expertise and assist the Parish through FEMA, and state (or other agency) guidelines to capture force account labor eligible expenses accurately for timesheets and project cost accounting. Assist in the review of Parish personnel policies to ensure compliance for eligible cost reimbursement.
- ▶ Challenge, where applicable, FEMA on their previous work, eligibility determination, cost valuations, project formulation and inaccurate statements on the Public Assistance Program including appeal determinations.
- ▶ Assist the Public Safety Grants and Administration Department with cash flow, advance, and reimbursement requests and documentation in anticipation of future audits.
- ▶ Possess the expertise and assist the Parish through federal, and state (or other agency) guidelines to ensure the capture of relevant data related to procured goods and services. Provide oversight of contractor's billing to ensure all costs eligible for disaster grant funding are documented and claimed.
- ▶ Develop processes for ensuring compliance related to contract monitoring and contract close-out as required by federal, state, or other agencies.
- ▶ Possess the expertise and assist the Parish with identifying other disaster recovery funding opportunities, including additional federal recovery programs.
- ▶ Assist with recovery of FEMA PA cost share funding through CDBG-DR applications.

APTIM Meets Minimum Requirements

- ▶ In-depth knowledge of federal and state requirements and guidelines including, but not limited to 2 CFR 200 et seq. and the FEMA Public Assistance Program and Policy Guidance (PAPPG).
- ▶ We have extensive knowledge of federal and state reimbursement policies and procedures.
- ▶ Our staff includes expertise in federal and state close-out procedures.
- ▶ 30+ years' experience providing the Scope of Services outlined in the RFP.

Understanding of Funds Available in Louisiana

Ultimately, there are many grant opportunities available in Louisiana, and the Parish would benefit from a strong consultant, **such as APTIM**, to advise them on the best funding strategies across the various state as well as federal opportunities (**Figure C-1**). One area of focus is on the increased funding opportunities available through the Bipartisan Infrastructure Bill and the Infrastructure Investment and Jobs Act—APTIM has resources devoted to evaluating opportunities arising from this legislation and their compatibility with our clients' needs.

One strategic aspect when applying multiple grants to a project is understanding which funding sources can be used as match for federal grants. Another is to understand that combinations of multiple grants can result in lower project cost shares for each grant program, leading to more competitive applications. Also, as each program will have a distinct period of performance and timeline for completion, grant programs will need to be evaluated for compatible timelines to combine them.

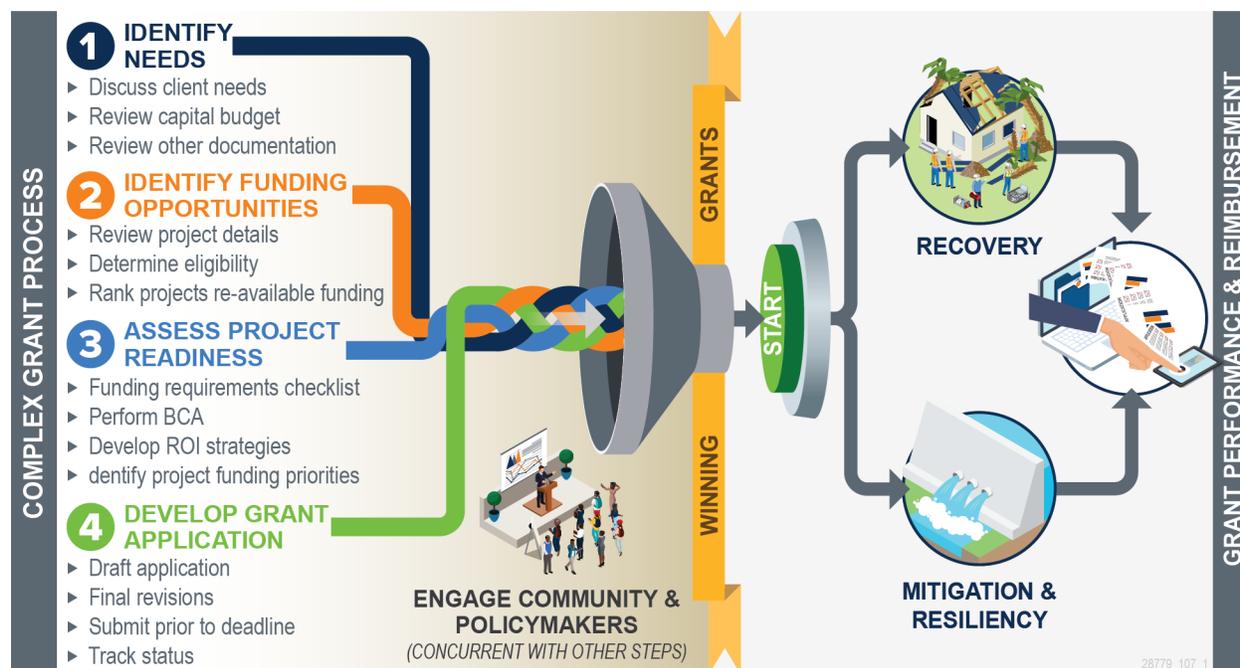


Figure C-1. APTIM’s Complex Grant Funding Process.

C.1 FEMA’s Public Assistance Program Experience Working with Applicants Receiving Funds

APTIM understands and accepts the great responsibility of appropriately representing the Parish on application matters. APTIM is qualified to advise and recommend the best course of action on behalf of the Parish in all grant-related activities as the primary decision maker and authority responsible for implementing the programs and earning reimbursement of all eligible expenditures. Our team will ensure each application we develop and project we manage complies with the appropriate guidelines as well as adheres to applicable laws, rules, and regulations.

During the entire process, APTIM will create and manage a document retention system for each grant application, and for the program. APTIM will ensure that each step in the process is fully documented, including any decisions made. APTIM understands that this documentation is vital to ensure proper reimbursement to the Parish and the homeowner.

This documentation will include, at a minimum, weekly reports to the Parish on each individual structure elevation, as well as interim communication via phone or e-mail as decisions are made. These reports shall reflect the projects worked on, the tasks addressed for each project, future courses of action for the projects, project status, communications regarding the project or program, and other information the contractor needs to communicate to contractor’s supervisor.

Assistance in Grant Funding Audits

CFR Title 2 unifies federal grant administrative requirements so that all federal funding awardees, regardless of the federal grantor, follow the same administrative funding requirements. The APTIM Team has the expertise to support the Parish with preparing for audits with the Office of Inspector General (OIG). We will assist the Parish in its preparations for annual and single audits, including briefings, if necessary, for independent auditors.

The programmatic requirements for procurement as they relate to FEMA PA can often be challenging. The documentation requirements can sometimes appear to be a confusing morass of federal, state, and local laws, regulations, and policies that must be aligned to demonstrate compliance. For example, local procurement policies must be followed for purchases to be reimbursed by FEMA. However, those policies do not normally consider federal procurement requirements, except when used in conjunction with federal funds for reimbursement.

Understanding these requirements can prove to be a major challenge for some subrecipients, as evidenced from numerous Department of Homeland Security-Office of Inspector General (DHS-OIG) audit reports that cite procurement violations as the most common problem resulting in negative audit findings and de-obligation of funds. The APTIM Team will assist the Parish with procurement-related issues in a variety of ways, including:

Evaluating and Revising Procurement Procedures as needed. The APTIM Team can perform “integrity audits” to review existing procurement policies for compliance and advise where processes and procedures should be modified to reach the requisite level of compliance for FEMA PA. These audits would include evaluating procurement policies against the requirements and suggestions included in, but not limited to:

- ▶ The building codes of Louisiana: the International Building Code 2021 (IBC 2021), International Residential Code 2021 (IRC 2021), International Plumbing Code 2021 (IPC 2021), International Existing Building Code 2021 (IEBC 2021), International Mechanical Code 2021 (IMC 2021), and the National Electrical Code, 2020.
- ▶ Jefferson Parish Code of Ordinances
- ▶ FEMA’s Procurement Disaster Assistance Team (PDAT) Field Manual; October 2021. (Applicable to FEMA awards and Stafford Act disaster declarations issued on or after November 12, 2020.)
- ▶ FEMA’s Pricing Guide for Recipients and Subrecipients Under the Uniform Rules, 2016 (2 CFR pt. 200)
- ▶ FEMA’s Public Assistance Applicant Procurement Compliance Checklist Associated with Declarations Issued ON or AFTER December 26, 2014 (2 CFR pt. 200)
- ▶ FEMA’s Contract Provisions Guide, Navigating Appendix II to Part 200-Contract Provisions for Non-Federal Entity Contracts Under Federal Awards; June 2021 (Applicable to all Non-Federal Entities purchasing in support of declarations and FEMA awards issued on or after November 12, 2020, and reflects Office of Management and Budget (OMB) revisions to the federal procurement standards.) Analysis of Contract vs. Self-Perform. In addition to conducting integrity audits and providing recommendations and corrective actions to the Parish.

Amount of Firm Experience Performing Scope of Work/Services

APTIM provided technical support for over 2,655 applicants in the state for 15 open federally declared disasters since 2005—these disasters include Hurricanes Katrina, Rita, Gustav, Ike, and Isaac with damages exceeding \$13B. APTIM also supported the Louisiana Office of Community Development Disaster Recovery Unit (OCD-DRU) with implementation and management of the statewide Hazard Mitigation Grant Program (HMGP) residential mitigation program (Figure C-2). APTIM provided supplemental staffing services for OCD-DRU to assist with the processing of \$650M in funding for both the HMGP and the Community Development Block Grant (CDBG) Program. As a result of the 2005 Hurricanes Katrina and Rita, OCD-DRU is the sub-grantee of the largest HMGP in US history and one of the largest CDBG programs in the country. **APTIM's state level involvement demonstrates our team's abilities to understand the State grantee's perspective when implementing and reviewing local sub-grantee applications and project documents.**



- 8** Property Acquisition & Structure Demolition
- 10** Structure Elevation
- 1** Mitigation Reconstruction
- 11** Localized Flood Risk Reduction Projects
- 8** Structural Retrofitting of Existing Buildings
- 1** Non-Structural Retrofitting of Existing Buildings
- 3** Safe Room Construction
- 1** Infrastructure Retrofit
- 3** Wildfire Mitigation

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Figure C-2. APTIM Hazard Mitigation Projects.

Currently, APTIM provides FEMA and HUD-CDBG disaster response and recovery services to state and local agency clients in Florida and North Carolina (Region IV), California (Region IX), Louisiana and Texas (Region VI), New York, New Jersey, Puerto Rico and the US Virgin Islands (Region II). **We are also a longtime FEMA contractor having held FEMA Individual Assistance (IA)/Technical Assistance Contracts (TAC) (IATAC) I, II, and III and currently hold the FEMA IA Support Contract (IASC) and FEMA LOGHOUSE Contract.** APTIM has the experience required to assist the Parish in all aspects of this contract. APTIM provides the Parish with a proven firm that has an extensive knowledge and understanding of:

- ▶ Federal and state requirements and guidelines including, but not limited to Treasury policy, Uniform Guidance, and other associated grant policy guidance.
- ▶ Federal and state reimbursement policies and procedures.
- ▶ Federal and state close-out procedures.

APTIM provides hazard mitigation planning services. These services consist of comprehensive analyses, vulnerability assessments, and mitigation actions to minimize or eliminate the effects of identified hazards including project scoping, feasibility studies, preliminary engineering, construction cost estimates, benefit cost analyses, design, and environmental studies. APTIM prepared and/or updated hazard mitigation plans for more than 10 Louisiana parishes.

On a state level, APTIM provided technical assistance to GOHSEP in the administration and execution of the FEMA Hazard Mitigation, PA, and IA programs.

Comprehensive Explanation of Post Disaster Recovery Reviews

An unexpected consequence of disasters is that they provide an opportunity for community infrastructure renewal. The Parish, with the assistance of the APTIM project team, can review existing infrastructure and Parish assets to determine where the public interest could be better served by choosing not to restore a damaged facility or its function to the pre-disaster design or capacity.

FEMA PA allows applicants to not have to repair or replace disaster-damaged facilities in favor of applying those dollars elsewhere as an Alternate or an Alternative Procedures Project. An infrastructure capacity analysis will allow the Parish to address demographic changes and other factors driving the evolving needs of the Parish.

In addition to analyzing the evolving function and capacity needs of the Parish, the APTIM project team can analyze the optimal methods of delivering the PA program. With a greater understanding of damages, Parish risk tolerance, and the Parish's needs to accelerate recovery, the APTIM project team can help evaluate the pros and cons of the traditional "at-cost" PA program, as contrasted against the Public Assistance Alternative Procedures (PAAP). The PAAP offers an accelerated option for program delivery but relies on acceptance of a concomitant level of risk through the acceptance of fixed grants, where the Parish would absorb potential cost overruns.

APTIM's Alternate/Improved and Alternative Procedures Subject Matter Expert (SME), Mr. Robert Bressett has over 15 years of experience helping subrecipients boost reimbursements and make their communities more resilient to future disasters with optional funding considerations. He was the "go to" consultant for GOHSEP for over 12 years.

Determining and documenting the disposition of the original facility, including the assurances that all eligible funding is captured, as well as any potential improvements are identified is necessary to request approval of an Alternate, Improved, or Alternative Procedures Project. Performing that analysis and documenting those results will occur at this phase as needed, with programmatic guidance from APTIM's Policy SME, Robert Bressett. He was directly involved with over 600 such projects and has provided guidance for as many as 900, and has either written or reviewed all letters on behalf of sub-recipients to various GOHSEP State Coordinating Officers. This included the 16 A/I projects requested by Jefferson Parish for DR-1603 (Katrina) and DR 1786 (Gustav) that involved funding from approximately 40 PWs.

Field Damage Assessments and Public Adjusting

This step is critical prior to attempting to document any losses to FEMA.

Field damage assessments include the identification of all damaged sites and obtaining data comprised of the quantification and documentation of those damages along with any initial damage estimates by public adjusters. A Damage Assessment team will capture detailed damage information, including GIS coordinates and damage site photographs for later special considerations assessment, scope development, estimating, and PW drafting. For multiple damaged facilities across larger geography, APTIM has previously utilized ArcGIS field data collection application to capture its field damage assessment data for sub grantees.

Unique Methods Used in the Process of Successful Reimbursements

APTIM possesses extensive experience managing successful disaster recovery programs and the FEMA reimbursement process for both recipients and sub-recipients. Our team has delivered comprehensive emergency management and disaster recovery services for many years.

- ▶ In 2014, NYCHA selected APTIM to serve as program manager for its Hurricane Sandy Recovery and Resiliency Program. APTIM's negotiation efforts on behalf of NYCHA yielded the largest project worksheet in FEMA history. This is the largest PAAP Consolidated 428 Grant in the Hurricane Sandy footprint—at \$3.2B in eligible repairs and mitigation.

APTIM offers expertise in documenting project development and grant management activities necessary for optimal reimbursement from FEMA and other Federal agency grant programs.

APTIM is aware of the changes from the Direct Administrative Costs (DAC) policy to the Management Cost policy because of the passage of the Disaster Recovery Reform Act of 2018, amending the Robert T. Stafford Act's Section 324; applied retroactively for disasters declared on or after August 1, 2017, such as for Hurricanes Laura and Delta.

Pre-Built, Tested and Used Direct Administrative Costs/Management Cost Timekeeping Software

DAC, now called Management Costs with the passage of the Disaster Recovery Reform Act of 2018, is an important consideration for clients hiring a consultant to assist them with its recovery.

These costs dictate what portion of a consultant's work will be reimbursable by GOHSEP/FEMA. Tracking DAC/Management Costs effectively and comprehensively throughout the lifecycle of the project controls costs for the Parish and helps maximize the funding from federal agencies. We understand the constraints emergency managers face when contracting disaster recovery consulting services, so this activity is central to our project approach. APTIM's easy-to-use application will specifically track DAC/Management Cost activities for projects.

- ▶ At GOHSEP, APTIM provided over 25 technical programmatic advocates for over 1,500 sub-grantees in the state—applicants of all types—including local governments, parishes, state agencies, and private non-profits (PNPs) among many others.
- ▶ The depth of the services we provided to GOHSEP provided our personnel with first-hand knowledge of one of the biggest disaster recovery “laboratories” in existence. At GOHSEP, our team supported recovery efforts stemming from 14 federally declared events and over 30,000 individual project worksheets spanning all FEMA PA categories of work from various types of debris and emergency protective measures to permanent infrastructure repair and restoration.
- ▶ APTIM also provided Bossier Parish (LA) with technical, strategic recovery, policy guidance, and grants management assistance after the Parish's infrastructure sustained flood damages of over \$36M. Our team evaluated damages to roads, bridges, and water control facilities caused by flooding, then provided design, project and construction management services for all damaged roads, bridges and culverts identified on 22 FEMA project worksheets. APTIM SMEs successfully convinced the CBCA Panel of judges to overturn FEMA's determination for a \$0 project into a \$25M project, and then assisted the Parish with increasing the \$25M project to \$32M.
- ▶ As a result of teaming with APTIM, Merced County received \$615,000 in reimbursable funds from \$713,000 in eligible funds. The recovered funding included FEMA and Community Development Assistance Act (CDAA) program funding from DR-4301 and DR-4308.

- ▶ Due to the expertise of APTIM engineers during CBCA Arbitration proceedings, Bossier Parish was awarded \$25M for their Paved Roads PW, that FEMA had originally formulated for \$0. This same PW was increased to approximately \$32M because of APTIM's and the Parish's collaborative efforts. The current eligible obligated funding available to the Parish is approximately \$36M (approximately \$27M based on the 75% federal cost share). To date, the Parish has received approximately \$9M, due to currently open projects.
- ▶ As a result of APTIM's efforts for Beauregard Electric Cooperative, their estimated eligible funding is approximately \$100M.
- ▶ As a result of the wildfires in California, APTIM has assisted Paradise Irrigation District with potentially receiving an estimated \$122M in eligible funding.
- ▶ PANYNJ estimated eligible funding: \$2B/2015 ongoing
- ▶ El Dorado Irrigation District: eligible funding: \$8M/2021 ongoing

Firm Experience and Capabilities

Figure C-3 highlights APTIM's experience and capabilities as they relate to the scope of work/services as outlined in this RFP.

APTIM Client/Project	Description	Grant Management/ Compliance	FEMA PA	FEMA Hazard Mitigation	Appeals/Dispute Resolution	Insurance	Closeout	Other Funding Sources (CDBG)	Grant Policy Guidelines	Federal/State Close-out Procedures	Federal/State Reimbursement Policies
City of Bonita Springs, FL FEMA Public Assistance and Hazard Mitigation Grant Program Services	APTIM provided FEMA PA and HMGP support for project identification, development, and grant applications. APTIM worked in partnership with City Management and Council members to maximize all grant funding opportunities across state and federal agencies. This funding provided long-term flood mitigation and support of those impacted in low- to moderate-income housing to ensure these residents do not become displaced through the rebuilding process.	●	●	●					●		●
Louisiana Governor’s Office of Homeland Security & Emergency Preparedness (GOHSEP) Technical Assistance for Stafford Act Programs: PA, Hazard Mitigation, Individual Assistance And National Flood Insurance Act Support	Provided technical assistance to administer and execute FEMA PA and HMGP. Provided technical support for 2,655 applicants in the state for 15 open federally declared disasters since 2005, with damages exceeding \$13B. We provided resolution to issues that eased the likelihood of future problems for the state and its applicants. APTIM successfully closed the contract at \$3M under the initial estimated annual budget.	●	●	●	●	●	●		●	●	●
Paradise Irrigation District FEMA Public Assistance and Disaster Recovery Management Services	After the devastating 2018 Camp Fire in Northern California, over 9,000 structures in the Town of Paradise were burned. The wildfires moved through the town rapidly and burned so intensely that they caused extensive damage to the town’s water system. APTIM is supporting Paradise Irrigation District (PID) with technical assistance in the development and submittal of their grant applications for funding under FEMA 404, 428, and PA.	●	●	●	●	●	●	●	●	●	●

APTIM Client/Project	Description	Grant Management/ Compliance	FEMA PA	FEMA Hazard Mitigation	Appeals/Dispute Resolution	Insurance	Closeout	Other Funding Sources (CDBG)	Grant Policy Guidelines	Federal/State Close-out Procedures	Federal/State Reimbursement Policies
Village of Estero, FL – FEMA PA Grant Program	APTIM provided a wide array of consultant services related to storm recovery from Hurricane Irma and future storms. Services include general program support and guidance comprised of identifying eligible costs/damages, categorizing losses, identifying possible alternate or improved projects, project worksheet formulation, special reviews, hazard mitigation opportunities, advice on procurement and documentation requirements, and policy advice and problem resolution.	●	●	●					●		
Beauregard Electric Cooperative (BECI), Emergency FEMA Public Assistance Services	APTIM provided specific and targeted advice and policy interpretation to BECI Administrative and Operational officials to enhance BECI's plan of action for capturing and demonstrating proper emergency procurement, detailed supporting documentation, and FEMA-eligible work activities of BECI personnel and Mutual Aid providers.	●	●	●					●		●
Bossier Parish, LA Disaster Recovery and Emergency Planning Services–Severe Storms and Flooding (FEMA DR-4263)	APTIM provided Bossier Parish with technical, strategic recovery, policy guidance, and grants management assistance. The Parish's infrastructure sustained damages of over \$36M. The team assessed the Parish's procedures for reimbursement, drawdown of funding, and close-out of federal funds and reconciliation of federal funding sources, both FEMA and non-FEMA.	●	●	●	●		●		●	●	●
Lake Madrone Water District Grants Appeal Support	APTIM is providing appeal responses to FEMA's Determination Memorandums/RFIs. APTIM Policy, Technical and Appeals' SMEs timely submitted 4 appeals/counterarguments to FEMA's denial of funding via negative Determination Memorandums.	●	●		●			●	●		

APTIM Client/Project	Description	Grant Management/ Compliance	FEMA PA	FEMA Hazard Mitigation	Appeals/Dispute Resolution	Insurance	Closeout	Other Funding Sources (CDBG)	Grant Policy Guidelines	Federal/State Close-out Procedures	Federal/State Reimbursement Policies
New York City Housing Authority Program Management Services Related to Hurricane Sandy Long-Term Recovery	APTIM provide professional program management and lifecycle grants management assistance services. APTIM's negotiation efforts on behalf of NYCHA yielded the largest project worksheet in FEMA history—at \$3.2B in eligible repairs and mitigation; Implemented resiliency measures to help ensure that critical infrastructure remains online in future storms or outages and that NYCHA residents have safe and resilient housing for years to come.	●	●	●	●	●	●	●	●	●	●
Port Authority of New York and New Jersey (PANYNJ) Storm Mitigation, Resilience, Insurance Adjustment, and Grant Management Services for Federally Funded Projects APTIM	APTIM is supporting PANYNJ with managing the agency's full portfolio of projects for Superstorm Sandy, ARPA, COVID-19, and Tropical Storm Isaias, providing advisory services for navigating the grant management process, minimizing risk, and maximizing reimbursement. Our negotiation efforts on behalf of NYCHA yielded the largest project worksheet in FEMA history—at \$3.2B in eligible repairs and mitigation; Implemented resiliency measures to help ensure that critical infrastructure remains online in future storms or outages and that NYCHA residents have safe and resilient housing for years to come.	●	●	●	●	●	●	●	●	●	●

Figure C-3. APTIM Hazard Mitigation Project.

C.2 Approach to Scope of Work/Services

Project Plans

APTIM's Project Approach will minimize the Parish's concerns for cash flow issues and grants management. We have implemented many procedures, plans, and practices to perfect our project approach—as highlighted in **Figure C-4**—from selecting the right staff to developing exceptional recovery software.

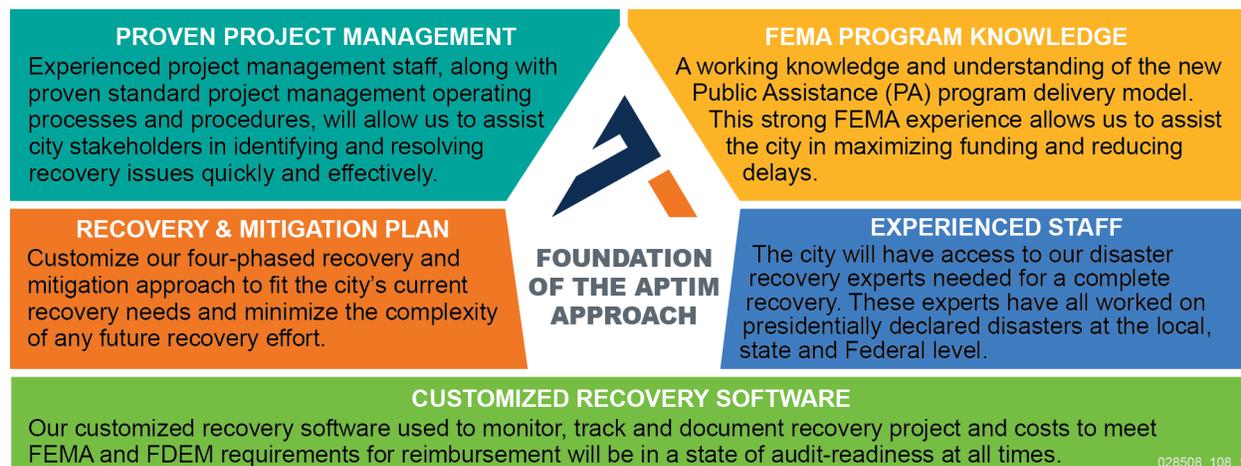


Figure C-4. Foundation of the APTIM Approach for the Jefferson Parish's Scope of Work.

Technical Approach Overview

Project Management

As Jefferson Parish knows from the 19 federal declarations experienced since 2001, and managing over \$719M, the financial aspects of disaster financial operations require a cross-functional team of seasoned, multi-disciplinary professionals, and innovative tools. Federal disaster assistance programs place additional financial management, data analysis, and reporting burdens on applicants. Meeting these demands requires a management approach that is transparent and integrates traditional grants management with the project management of engineering, construction, and public administration disciplines. We believe this approach results in early and ongoing problem identification and resolution, resulting in maximized funding from various federal sources for the Parish.

APTIM proposes a single, integrated grants management approach in pursuit of the Parish's recovery efforts. We view the activities in the scope of work as interrelated. The APTIM project team will facilitate solutions that provide the Parish with maximum funded projects while minimizing appeals and arbitration issues. The Parish is familiar with our proposed Program Manager, Hamid Alizedah, who has a successful track record and long history of providing excellent services to the Parish. He is supported by a well-defined and seamlessly integrated quality assurance and quality control program that will enhance the quality of all deliverables. Mr. Alizedah will support the Parish and its team of recovery professionals with a sound project management approach, shaped by his disaster recovery training and experience across the nation.

Recovery Information Management

The APTIM Team will use our customized cloud-based dashboard centric software (Customizable Recovery Information Software [CRIS];

Figure C-5) to manage data and supporting documentation necessary for disaster recovery grants. Our experience using this powerful tool allows for rapid development and deployment of a customized database and mapping applications that can be used for this project, at the Parish's discretion. We are using this custom-fit, rapidly deployed software for most of our client recipients and sub recipients across the country that include DAC (for disasters prior to August 2017)/ Management Costs monitoring (tying reimbursable hours by eligible task to specific PWs), depending on the effective dates of the declarations, damage monitoring, electronic document management, damage site mapping, project tracking, Request for Reimbursement Funding (RRF) tracking, and much more.

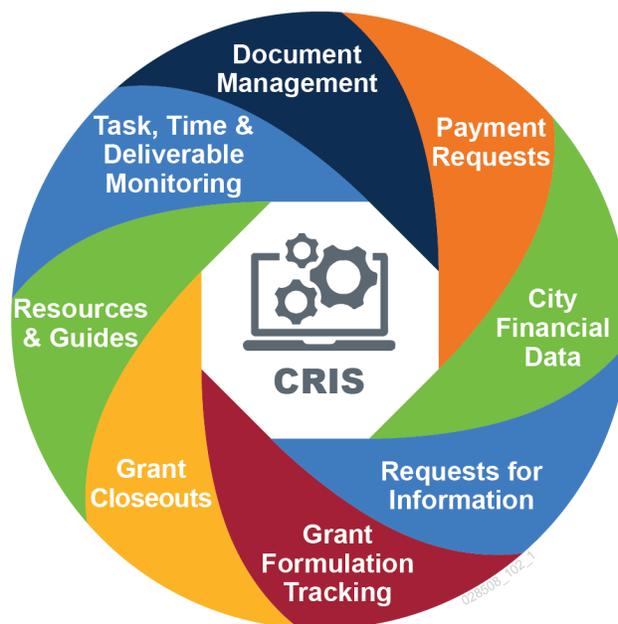


Figure C-5. APTIM's CRIS.

Understanding FEMA PA Program Delivery Model and Implications to the Parish

As Jefferson Parish is aware, in 2014 FEMA began an effort to revamp the PA Delivery Model to better predict and manage resource requirements, to offer better customer services to applicants and to gain efficiencies throughout the process.

APTIM's PA SMEs are experienced and knowledgeable of changes to the FEMA Public Assistance Program and Policy Guides (PAPPG), as well as the changes that were ultimately included in the PAPPG resulting from the passage of the Disaster Recovery Reform Act of 2108 and the Bipartisan Budget Act.

Relevant examples include the elimination of the funding reduction for alternate project; modifications to the Alternative Procedures (also known as Section 428 projects), re-implementation of the right to request arbitration, in lieu of a second appeal; the changes to Management Costs, and the consideration for Consensus Based Codes, Specifications and Standards. We adjusted our approach to adapt to these program modifications in its work in Louisiana, California, Texas, and New York, as well as Florida, where many of us have gained experience working with elements of the new PA delivery model. Our Program Managers across the country have already noticed conflicts associated with the new FEMA delivery model. We would like to share some of those challenges and outline our strategies for resolution:

Challenge: Lack of Coordination

Under the delivery model, FEMA designates a Program Delivery Manager (PDMG) to serve as the primary point of contact between FEMA and the sub-recipient. The PDMG manages a team of site inspectors and a separate team of support staff who work out of a Consolidated Resource Center often located far from the affected jurisdiction. In the past, a jurisdiction would formulate PWs internally or seek assistance from a consultant, with FEMA validating the work during the project review phase. Our SMEs and Project Managers have seen FEMA's system, which assigns more control over PW formulation to off-site FEMA personnel, can lead to bottlenecks that hold up the development of PWs and underestimate the true costs of repairing damaged infrastructure.

Resolution Tactic

APTIM will make recommendations driven by cost-effectiveness and resource availability regarding the best path forward for potential PA projects. Some projects will be most efficiently formulated in-house, some by consultants, and others by FEMA's nationwide PW writers.

At times, it may be more cost-effective for FEMA to author the PW, while we perform a thorough review. These strategic recommendations will be made on a case-by-case basis, and always in the interest of the Parish as we move through the grant lifecycle. In advising our disaster recovery clients on the best route for a PW, our Project Managers develop cost-benefit analyses that include projected timelines and budgets to assist with decision-making. If FEMA writes the PWs, we will work with the Parish to verify its accuracy and ensure all damages, scopes of work and costs are captured in accordance with your claim.

Challenge: Delays in the Obligation of Recovery Funds

The ability to quickly repair damages while maintaining local government budgets is of critical importance to ensuring a smooth recovery. The introduction of changes to the PA program and the shift of federal financial resources has caused subrecipients to experience lengthy funding delays.

Resolution Tactic

Members of our proposed project team have positive relationships with GOHSEP, FEMA Region VI, FEMA Headquarters, and other relevant agencies that we can leverage to navigate these bureaucracies and expedite the development of PWs on the Parish's behalf. We are forceful advocates for our clients' interests and know how to keep PWs moving to get funds obligated.

Challenge: Conflicting Incentives between Subrecipients and FEMA

With nearly 40 years of experience assisting communities with disaster recovery, we have learned a great deal about how to balance the interests and objectives of FEMA and administering states with those of the sub-recipients, such as Jefferson Parish. While FEMA financial resources are crucially important for local government recovery, sometimes its personnel may unreasonably seek to control costs and limit reimbursement to sub-recipients as guardians of the "public purse."

Resolution Tactic

With FEMA personnel asserting more interpretation of disaster damages and control over PW formulation, we believe it is imperative to stay proactive, maintain a smooth working relationship with all stakeholders, and understand the Parish's rights and eligibility as a sub-recipient. Our staff possess expert conflict resolution skills and maintain close relationships with FEMA personnel throughout Region IV and nationally. We have successfully de-escalated conflicts, advocated for sub-recipient rights, and used our command of FEMA's enabling statutes, regulations, and policies in the best interests of our clients. When those preventative measures do not result in the reimbursements to which our clients are entitled, we can engage our appeals/dispute resolution team. The PA program makes the states a key partner in assisting sub-recipient agencies to understand program requirements while also acting as an important advocate for sub-recipient interests. Our primary objective is to engage productively and proactively with FEMA and the state to provide the Parish with direct assistance to ensure the Parish receives the maximum financial assistance to which it is entitled.

Pre-Built, Tested and Used Direct Administrative Costs/Management Cost Timekeeping Software

DAC, now called Management Costs with the passage of the Disaster Recovery Reform Act of 2018, is an important consideration for clients hiring a consultant to assist them with its recovery. These costs dictate what portion of a consultant's work will be reimbursable by GOHSEP/FEMA. Tracking DAC/Management Costs effectively and comprehensively throughout the lifecycle of the project controls costs for the Parish and helps maximize the funding from federal agencies. We understand the constraints emergency managers face when contracting disaster recovery consulting services, so this activity is central to our project approach. Our easy-to-use application will specifically track DAC/Management Cost activities for projects. FEMA requires sub-recipients track all costs specifically for FEMA reimbursement, and our software exceeds FEMA's requirements, and is used successfully by sub-recipients across the country. We have a deep and substantive understanding of DAC/Management Cost requirements. Our pre-built timecard application is fully compliant with FEMA and state documentation requirements. Our system is ready for immediate deployment and customization for the Parish's recovery projects.

Project Plan

Our approach to drive success for the Parish's recovery relies heavily on a project management system, tied to a rigorous and specific project schedule defined at the start of the project. Throughout this section, we introduce our approach to executing and managing four major stages of recovery grants management operations (Figure C-6), as well as each stage's supporting tasks. The phases are fully inclusive of all activities requested in the Scope of Work as detailed in the RFP.



DISASTER GRANT PROGRAMS

- ▶ Stafford Disaster Relief and Emergency Assistance Act (**Stafford Act**)
- ▶ Sandy Recovery Improvement Act of 2013
- ▶ Disaster Recovery Reform Act of 2018
- ▶ Florida Division of Emergency Management (**FDEM**)
- ▶ FEMA Public Assistance Program (**PA**)
- ▶ FEMA's New Public Assistance Delivery Model
- ▶ FEMA Individual Assistance Program (**IA**)
- ▶ Sections 404 and 406 Mitigation Programs
- ▶ Pre-Disaster Mitigation (**PDM**), Flood Mitigation Assistance (**FMA**), & Severe Repetitive Loss (**SRL**)
- ▶ HUD CDBG and CDBG-DR Program (**IA**)
- ▶ FTA-ER and FHWA-ER Programs (**IA**)
- ▶ Robert T. Stafford Disaster Relief and Emergency Assistance Act
- ▶ Post-Katrina Emergency Management Reform Act of 2006
- ▶ Small Business Administration (**IA**)
- ▶ Uniform Grant Guidance - 2 CFR 200 "**The Super Circular**"
- ▶ National Flood Insurance Program (**NFIP**)
- ▶ Preliminary Damage Assessments (**PDA**)
- ▶ Section 428 Pilot Program for Alternative Procedures
- ▶ Requests for Reimbursement (**RFR**)
- ▶ Insurance Claims Recovery
- ▶ Cost Estimating Format and RS Means
- ▶ Single Audits & OMB Circular A-133
- ▶ Knowledge and System Transfer
- ▶ Procurement and Contract Management
- ▶ Debris Management & Monitoring
- ▶ Grant Cost Tracking & Financial Management
- ▶ Data & Document Management & Storage
- ▶ Closeout Management and Reporting
- ▶ Sandy Recovery Improvement Act of 2013

Note: (IA) If Applicable

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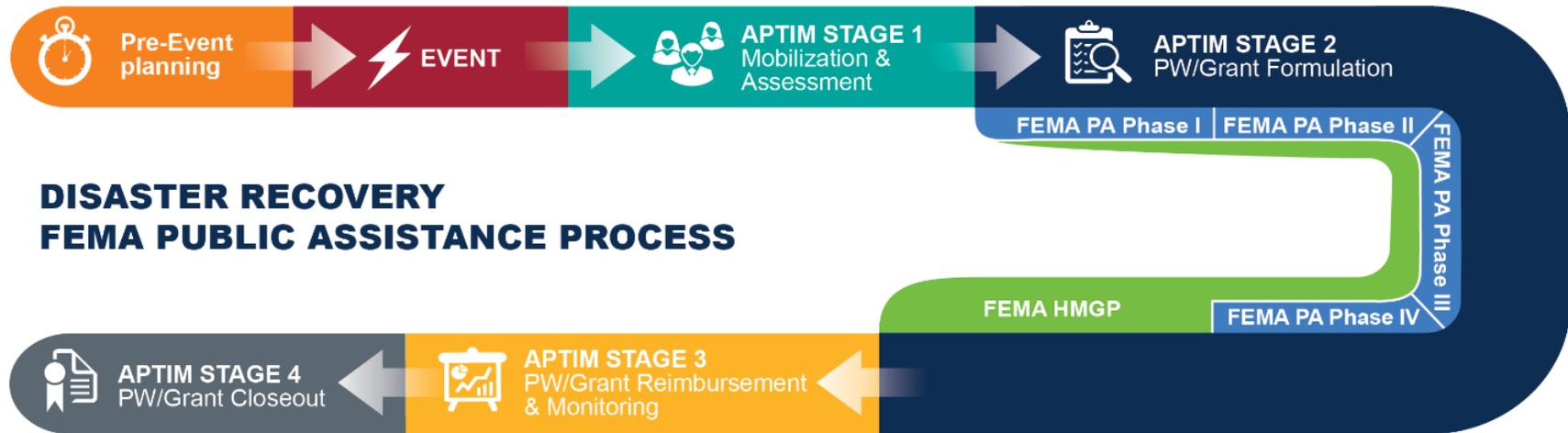
Figure C-6. APTIM's Grant Program Expertise.

APTIM understands, if awarded, “the term of any resulting contract shall be for three years commencing on January 1, 2023, and shall expire on December 31, 2025. Jefferson Parish has the option to pursue one, two-year extension) depending on the severity of recovery needs. This option can only be exercised by the Parish, and by a formal written Amendment approved by Jefferson Parish Council.”

Our consulting services will move as efficiently as possible, but the pace of the Parish’s actual construction and infrastructure recovery operations will impact the schedule based on actual construction progress completion. Many PW Formulation, Grants Management, and Closeout activities rely on infrastructure construction progress. We anticipate a higher-than-average complexity for any potential marine/coastal engineering requirements/assessments for any of the Parish’s coastal infrastructure. We welcome the opportunity to discuss the schedule in greater detail with the Parish upon contract award.

The following assumptions are applicable throughout our formal project approach (**Figure C-7**) and the proposed project schedule. Assumptions include:

- ▶ APTIM’s proposed project schedule assumes that mobilization of our proposed team will respond within 48 hours of notification from the Parish, contingent on the mutually approved date of the notice to proceed.
- ▶ We anticipate a rapid and coordinated push to submit the Damage Inventory, Damage Descriptions and Dimensions (DDD), and any associated proposed Scopes of Work (SOW) for the principal goal of PWs to expedite “obligated” status, as soon as possible, accelerating the submission of Requests for Reimbursement.
- ▶ APTIM possesses the personnel with the highest levels of experience and knowledge for optimization of the packaging and presentation processes that will meet or exceed the state/FEMA requirements of the Public Assistance Program.
- ▶ APTIM believes, based upon prior experience, that a high level of manpower and activity should immediately be focused on mining and collating the Parish’s data so that damage inventory, DDD, and SOW can be expediently completed. By proactively and expediently completing activities needed to reach PW obligation while all data is fresh, accessible, and easily sourced; APTIM can assure a more fluid and productive reimbursement and closeout process.



DISASTER RECOVERY FEMA PUBLIC ASSISTANCE PROCESS

<p>PRE-EVENT PLANNING</p> <ul style="list-style-type: none"> Formulate/Revise Disaster Management Plan Formulate/Revise Debris Management Plan Formulate/Revise Hazard Mitigation Plan Procure Pre-event Contracts 	EVENT	<p>APTIM STAGE 1 – Mobilization & Assessment</p> <ul style="list-style-type: none"> Request for Public Assistance (RPA) RPA Approval Applicant Briefing Emergency Work Preliminary Damage Assessment (PDA) 		
<p>APTIM STAGE 2 – PW/Grant Formulation</p> <p>FEMA PA Phase I</p> <ul style="list-style-type: none"> Recovery Scoping Meeting (RSM) Exploratory Call PDMG Appointed 	<p>FEMA PA Phase II</p> <ul style="list-style-type: none"> Site Inspections Damage Description & Dimensions (DDD) Agreement 	<p>FEMA PA Phase III</p> <ul style="list-style-type: none"> PW Formulations SOW Formulation Estimate (Costing) SOW/Costing Agreement Determination Memos Appeals/Arbitration CRC Review Issue Resolution HMP Proposals 	<p>FEMA PA Phase IV</p> <ul style="list-style-type: none"> Applicant Signs PW FEMA QA/QC & Final Reviews PW Obligation/Award Exit Briefing 	<p>FEMA HMGP</p> <ul style="list-style-type: none"> Sub-recipient Meeting Project Identification Community Outreach HM Application Development Cost Estimation Benefit Cost Analysis RFI Response Project Award & Obligation
<p>APTIM STAGE 3 – PW/Grant Reimbursement & Monitoring</p> <ul style="list-style-type: none"> State Grant Management PW Version Requests Scope Alignment Cost Reasonableness Analysis Reimbursement Requests Quarterly Reports Appeals/Arbitration State Audits Project Work Completion Request PW Close-out Request Grant Close-out 	<p>APTIM STAGE 4 – PW/Grant Closeout</p> <ul style="list-style-type: none"> Begin Close-out Process Final Inspection Report (State Certification to FEMA) FEMA Closes PW Grant Project FEMA Closes Sub-recipients State Reconciles Project Funding FEMA Closes Disaster Conduct After Action Review (AAR) 			

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Figure C-7. APTIM’s Grant Management Approach



Stage 1: Mobilization & Assessment

The Mobilization and Assessment phase lays the foundation for a successful disaster recovery effort. During this stage, the APTIM project team will focus on understanding the Parish's disaster recovery goals, the internal capabilities of the Parish, the extent of disaster damages, and disaster-wide or "global" issues that affect most, or all the Parish's PW universe. Working with the Parish to understand its needs will help us tailor our scalable and wide-ranging expert services to ensure a truly effective partnership. During this initial phase, we place a heavy emphasis on reducing the burdens on day-to-day staff operations and expediting the development of PWs and eventual obligation of fund.

Recovery Outcome Indicators

We can assist the Parish in establishing Recovery goals that can serve as the foundation of the Parish's recovery process and determine how the Parish might develop strategies for recovery support. We can help establish outcome indicators to create a framework for tracking progress toward the Parish's recovery goals and desired outcomes. The outcome indicators developed with our SMEs can provide concise measures of recovery to assist in tracking progress toward the recovery goals and desired outcomes.

Examples of outcome indicators that might be evaluated to track progress toward desired recovery outcomes, include, but are not limited to:

Economic: This evaluates the outcome of key Parish stakeholders such as economic development organizations, businesses, financial institutions, consumers, and the workforce. Examples of considerations might include:

- ▶ Identifying the business activities that have resumed and are restored
- ▶ Identifying the potential post disaster employment opportunities that have been restored by industry
- ▶ Evaluating rates of unemployment or underemployment

Four Key Stages for Using the Recovery Outcome Indicators

Stage 1: APTIM will assist the Parish with establishing recovery goals based on disaster impacts, a recovery needs assessment, community conditions assessment, and disaster resiliency aspirations.

Stage 2: When the Parish has defined their goals and ideal outcomes for recovery operations, we can assist with the development of recovery strategies to support the Parish's goals and outcomes established in Step 1.

Stage 3: At this point the Parish is prepared to implement the strategy established in Step 2. APTIM can assist Jefferson Parish in identifying resources and services to support their desired outcomes.

Stage 4: APTIM will be able to assist the Parish assess the effectiveness of the recovery strategy in achieving its selected outcomes and goals. APTIM will assist Jefferson Parish with monitoring and evaluating the effectiveness of their recovery support implemented in Step 3 continuously and analyze this repeatedly throughout the recovery lifecycle. If outcome indicators in the monitoring and evaluation processes demonstrate satisfactory progress toward the Parish's defined goals, recovery support continues, with periodic assessments of the recovery. Alternatively, if the use of outcome indicators demonstrates inadequate progress toward achieving goals, APTIM can assist Jefferson Parish adjust their recovery strategy and implementation accordingly.

- ▶ Identifying what tax base and revenue streams from businesses have been restored
- ▶ Developing Comprehensive Economic Development Strategies and/or other preparedness measures through the recovery process to address hazard risk and enhance resilience

The screenshot shows a 'Time Entry Details' form for Jeff Abraham, a Contractor. The form includes fields for Resource (Jeff Abraham), Service Date (09-05-2017), and Hours (2). It features a list of project codes and descriptions, such as '2012120 Project Listing Development - Sub-Applicant Site Identification (C)' and '2022120 Project Listing Development - Immediate Needs (C)'. A summary table at the bottom right shows 'Total Prior Direct Costs for this PW' and 'PW Initial Estimated Cost'.

Housing: This evaluates whether housing recovery is underway and whether the recovery is equitable and creates a more resilient community. Key considerations include assurances that:

- ▶ Survivors whose primary residences were destroyed and were displaced by the disaster have returned and reestablished residence in permanent housing within the affected community
- ▶ Survivors can afford post-disaster permanent housing units within the affected community without post-disaster assistance
- ▶ Post-disaster permanent housing units in the affected community meet or exceed recognized residential codes and standards and incorporate recommended mitigation measures appropriate to the area’s hazards

Infrastructure: Critical infrastructure must be evaluated to determine whether the recovery is going in the right direction and pace to meet the Cities desired outcome. Principal infrastructure and outcome considerations might include:

- ▶ Water and wastewater systems and service capacities have been repaired, modernized, and strengthened for future disasters
- ▶ Communications systems and services have been repaired, modernized, and strengthened
- ▶ Public and private transportation systems and services are repaired and reliable
- ▶ Coastal areas are restored and strengthened for future disasters
- ▶ Waste sites, collection, and disposal services are resumed and fully operational
- ▶ Emergency public safety services (e.g., police and fire) have been restored

Contract Kickoff Meeting

Aligning expectations and developing a common vision for the Parish’s recovery is always our first step when embarking on a recovery project. Following notice to proceed, Program Manager Hamid Alizadeh will schedule a contract kickoff meeting. The kickoff meeting allows Parish staff to meet the APTIM project team who will support their ongoing recovery efforts. Typical attendees include but are not limited to the Director of Public Work, Director of Administrative Services, Auditor-Controller, GIS Manager, Purchasing Manager, as well as APTIM’s Principal, Program Manager, and Disaster Recovery Specialist.

This meeting sets the stage for a successful long-term collaboration, by establishing a project schedule and beginning the process of coordinating efforts with individual Parish departments. It also allows for the further assessment of any specialized resources that will be needed to support the recovery effort. During this meeting we typically begin to examine the IT, database, and financial management systems needs of the Parish and strategizes for integration, be it with an existing system or the rapid deployment of APTIM’s CRIS application.

Jefferson Parish Staff Capability Assessment

Assisting the Parish in meeting its recovery objectives will require that the APTIM project team has ready access to information and records collected by Parish staff and maintained in Parish's systems. We will work closely at the beginning of our engagement to understand who has what information and from where we can obtain it to support recovery activities. This could include information necessary for developing accurate labor records, cost estimating, engineering/ design, procurement, reimbursement requests, and other project-related activity. While learning the Parish's systems will require an investment of time on the part of Parish staff initially, it will save time once the APTIM project team understands the business organization and resources, and, ultimately, will increase the overall efficiency of recovery efforts.

Develop & Implement Document Management Plan

The most important consideration of the FEMA PA program is "documentation, documentation, and documentation." Audits oftentimes question costs, not because the work in question was improper, but because applicants were unable to adequately document what was done and the costs for approved work. The importance of an effective and well-designed document management system cannot be overemphasized. We believe an effective document management system must meet at least five goals:

- ▶ Reduce duplicative efforts associated with recurring requests for documents from various stakeholders.
- ▶ Ensure documents can be located even in the face of staff transition and attrition from FEMA, GOHSEP, or the Parish.
- ▶ Empower the Parish to continue the use of the system for the duration of the recovery, even after the departure of the consulting team.
- ▶ Support data collection, PW formulation, obligation, and closeout.
- ▶ Allow the Parish to meet federal document retention requirements, which require the Parish to retain all disaster grant related documents three-years after the last disaster grant is closed. This could be many years in the future from the date of the President's initial declaration.

CRIS and Dashboard Solution Buildout

APTIM's CRIS system enables the Parish and APTIM to jointly manage all programmatically relevant documentation, including among others: engineering plans, projections, and cost estimates; procurement records; invoices and payment records; and contract documents.

Although CRIS is a powerful, versatile, and imminently effective system, we have flexibility in our approach to document management and disaster financial management; our project staff is also prepared to adapt existing or internal procedures or databases for these same purposes.

If the Parish decides to utilize an external grants management tool, APTIM will design and implement a Parish specific web-based recovery management tool housed in CRIS. This system will have individual interfaces and security protocols designed around user accounts and based on the needs of different roles of the stakeholders. These tools will help the Parish management and the APTIM project team measure work complete, financial status, and shift priorities as needed throughout the recovery. CRIS is a cloud-based, one-stop shop for all disaster recovery activities and CRIS allows for seamless linkages between Parish staff.

Other features the APTIM project team will include in the CRIS system, in addition to dashboard reporting of the overall recovery status, include:

- ▶ **Administrative Cost Tracking:** A module to track staff time for reimbursement of costs to manage the program, whether consultant or employee.
- ▶ **Appeal Tracking:** A module for tracking appeals, appeal responses, and associated appeals delays and timeframes.
- ▶ **Timekeeping:** APTIM uses CRIS to prepare invoices, giving our clients transparency regarding our activities and the hours we bill, as they are recorded.
- ▶ **Quarterly Reporting:** GOHSEP and FEMA require subrecipients to submit quarterly progress reports. These reports are simple to compile, run, share, and adjust as needed in CRIS.
- ▶ **Master list of PWs, PW workflow, expenses, and reimbursements:** The CRIS application will house “source-level” documentation and data for summary reporting and provide a workflow system for the detailed transactional reporting and processing necessary for the recovery effort.

Accounting & IT Functions

As Jefferson Parish knows, the FEMA PA program is a reimbursement program based on actual eligible costs. As such, proper accounting for costs and grant proceeds is essential to successfully meet grant closeout objectives and defend against potential audit findings. Whether the Parish chooses APTIM’s CRIS application or an existing system, APTIM can coordinate with the Parish on a variety of critical accounting activities to ensure a successful recovery effort. These activities include:

Chart of Accounts & Cost Code Assessment/Recommendation

The APTIM Team can perform an analysis of the Parish’s existing financial system, disaster expenses, and cost coding structure, to ensure the proper assignment of costs and revenue to disaster, funding source, and individual PWs. Further, costs may need to be subdivided in other ways to ensure compliant grants management, reimbursement, closeout, or Parish operations. The chart of accounts, costs codes, and other financial management system issues can be reviewed, and recommendations can be provided to balance the various interests and needs of the Parish with respect to its compliance with federal grant requirements.

Integrity Audit of Procurement Policies and Procedures

The programmatic requirements for procurement as they relate to FEMA PA can often be challenging. The documentation requirements can sometimes appear to be a confusing morass of federal, state, and local laws, regulations, and policies that must be aligned to demonstrate compliance. For example, local procurement policies must be followed for purchases to be reimbursed by FEMA. However, those policies do not normally consider federal procurement requirements, except when used in conjunction with federal funds for reimbursement.

Understanding these requirements can prove to be a major challenge for some subrecipients, as evidenced from numerous DHS-OIG audit reports that cite procurement violations as the most common problem resulting in negative audit findings and de-obligation of funds. The APTIM Team will assist the Parish with procurement-related issues in a variety of ways, including:

Throughout Stage 1, the APTIM Project Team will become intimately familiar with the Parish’s processes, procedures, and recovery objectives. This will ensure a transparent and efficient recovery operation for Jefferson Parish and its stakeholders.

Evaluating & Revising Procurement Procedures as needed. The APTIM Team can perform “integrity audits” to review existing procurement policies for compliance and advise where processes and procedures should be modified to reach the requisite level of compliance for FEMA PA. These audits would include evaluating procurement policies against the requirements and suggestions included in, but not limited to:

- ▶ The building codes of Louisiana: the International Building Code 2021 (IBC 2021), International Residential Code 2021 (IRC 2021), International Plumbing Code 2021 (IPC 2021), International Existing Building Code 2021 (IEBC 2021), International Mechanical Code 2021 (IMC 2021), and the National Electrical Code, 2020
- ▶ Jefferson Parish Code of Ordinances
- ▶ FEMA’s Procurement Disaster Assistance Team (PDAT) Field Manual; October 2021. (Applicable to FEMA awards and Stafford Act disaster declarations issued on or after November 12, 2020.)
- ▶ FEMA’s Pricing Guide for Recipients and Subrecipients Under the Uniform Rules, 2016 (2 CFR pt. 200)
- ▶ FEMA’s Public Assistance Applicant Procurement Compliance Checklist Associated with Declarations Issued ON or AFTER December 26, 2014 (2 CFR pt. 200)
- ▶ FEMA’s Contract Provisions Guide, Navigating Appendix II to Part 200-Contract Provisions for Non-Federal Entity Contracts Under Federal Awards; June 2021 (Applicable to all Non-Federal Entities purchasing in support of declarations and FEMA awards issued on or after November 12, 2020, and reflects OMB revisions to the federal procurement standards.) Analysis of Contract vs. Self-Perform. In addition to conducting integrity audits and providing recommendations and corrective actions to the Parish, the APTIM project team can jointly develop a contracting plan, to include a list of critical contracts. Conducting a costing analysis to determine which scopes of work will be completed through force account labor and which are better contracted-out will ensure accurate estimating and the proper valuation of PWs. In addition, understanding the contracting strategy will inform our advice on permissible procurement methodologies to help ensure compliance.

Cash Flow Needs Projection/Assessment. Understanding a procurement strategy, as envisioned earlier, will allow the APTIM project team, with the assistance of the Parish staff, to develop a recovery master schedule. This schedule will enable our team to forecast, monitor, and assess cash flow needs of the Parish. This will better enable prudent financial management by the Parish while also allowing the Parish to pursue remedial measures to address short-term funding gaps. The APTIM project team can also assist the Parish with project formulation strategy that might emphasize either programmatically “large” or “small” projects. A bias towards “small” projects could enhance cash flow and reduce administrative requirements, while increasing the risk of project overruns. A bias towards “large” projects could increase the Parish’s administrative burden but reduce the risk of project overruns. As Jefferson Parish is aware, on August 3, 2022, FEMA increased the Simplified Procedures threshold to \$1M. The \$1M threshold applies to PA projects where no funding has been obligated as of August 3, 2022, under incidents declared between March 13, 2020, and August 3, 2022; and all PA projects under incidents declared on or after August 3, 2022.

APTIM recovery leaders have decades of PA expertise as well as eligibility experience with infrastructure projects at both the subrecipient and recipient levels, including hundreds of emergency and permanent work projects.

Collect Pertinent Parish and County Policies and Procedures. As a routine part of the PA program, FEMA will generally ask for various policies and procedures that were in effect at the time of the declared incident. These policies aid in determining eligibility and estimating eligible costs, some of these may change over the natural lifecycle of a disaster or through the natural evolution of policy in a jurisdiction. The APTIM project team will collect and maintain these policies through its document management system, while simultaneously analyzing the substance of these policies for an adverse impact on the Parish's recovery, some of these policies include:

- ▶ **Timekeeping and Overtime Policies:** Policies that guide when employees are entitled to premium pay or overtime, leave time, or "comp" time and other related issues.
- ▶ **Fringe Benefit Policies:** Policies that identify the types and magnitude of fringe benefits available to different types of employees. Such information includes the typical costs and values of the fringe benefits. These policies are used to calculate the "loaded" cost of force account labor.
- ▶ **Insurance Policies:** Insurance policies and other documents used for the management of flood or property damage risk. These policies might include National Flood Insurance Program (NFIP) or commercial property policies and might include blanket policies, individual facilities or asset policies, group policies, pool insurance, obtain and maintain policies or even self-insurance policies. These policies are necessary to identify potential duplication of benefits and to evaluate Parish obligations to maintain insurance going forward.
- ▶ **Codes and Standards:** The FEMA PA program requires the Parish to repair and restore disaster damages consistent with all applicable codes and standards. Analyzing the applicable codes and standards and how they work together is key to maximizing eligible funding. The APTIM project team will collect and analyze applicable codes and standards to facilitate negotiation efforts with FEMA.

Additional Assessments

Field Damage Assessments and Public Adjusting (Site Locations, Document Damages, Capture Photos)

The final activity of Stage 1 is performing any required field assessments to identify the damages. This step is critical prior to attempting to document any losses to FEMA.

Field damage assessments include the identification of all damaged sites and obtaining data comprised of the quantification and documentation of those damages along with any initial damage estimates by public adjusters. A Damage Assessment team will capture detailed damage information, including GIS coordinates and damage site photographs for later special considerations assessment, scope development, estimating, and PW drafting. For multiple damaged facilities across larger geography, APTIM has previously utilized ArcGIS field data collection application to capture its field damage assessment data for sub grantees.

Finalize Damaged Facilities Listing

There are programmatic deadlines associated with completing an initial damage report prior to kickoff meetings with FEMA. As applicable to the Parish's recovery, the APTIM project team will work dutifully to meet any remaining deadline for any previous disaster or for any future events. If circumstances prevent completion by the programmatic deadline, at the Parish's discretion, APTIM will assist in the preparation of a request for a deadline extension.



Stage 2: PW Formulation

Stage 2 emphasizes the actual formulation of PWs. This process typically involves the efforts of the subrecipient (in this case, Jefferson Parish), the recipient the State of Louisiana/GOHSEP, and of course FEMA. These efforts combine the global activities described in Stage 1 with comprehensive programmatic knowledge of policy and statute, to maximize eligibility and expedite administration of the program. This phase will necessitate coordination with all affected Parish departments, including Risk Management, to ensure any duplication of benefit is identified prior to PW formulation.

Document Collection, Initial Eligibility & Maintenance Review

All claimed damages and costs must be verified for eligibility. This process includes, but is not limited to, understanding the design, function and capacity of any given asset/facility, the maintenance requirements of the given asset/facility, the legal responsibility for repairs to the asset/facility, the type of repairs required, etc. In addition, subrecipients must properly document damages, identify an appropriate methodology for repair and/or restoration, and create a reasonable cost estimate to restore the asset/facility to its pre-disaster design, function, and capacity—with allowances for approved mitigation efforts. While the Parish might have already completed some of this work and verified the eligibility of some or all their sites, APTIM's project staff is available to support ongoing efforts, as needed.

Work Complete Analysis

Perhaps the Parish might have completed some work to restore functionality to disaster-damaged assets that could not wait. This work might include either permanent work or emergency protective measures. The APTIM project team will help properly classify the work already performed, the value of the work completed, as well as the need for urgency, so that it may be memorialized appropriately in a project worksheet, to avoid any eligibility problems with FEMA. Ensuring this is done properly will facilitate cash flow by expediting payments for work already completed.

Cost Estimating

Ensuring that costs are reasonable is the final threshold for eligibility in FEMA's analysis. Therefore, "cost reasonableness" is key to maintaining eligibility while cultivating the confidence that the final grant value will be sufficient to meet the needs of the Parish. FEMA allows a wide range of estimating tools, including RSMMeans in the traditional FEMA Cost Estimating Format (CEF), catalogs/internet data, local historical pricing, and public bids. APTIM is proficient in all these methods for determining cost reasonableness, as needed by the Parish.

Engineering Assessments

Depending on the nature of the assets or facilities damaged additional technical evaluation might be required. During this phase, our in-house marine and coastal engineers can analyze failure patterns, while using modern engineering and design methodology to ensure we have identified the true and full costs associated with repairing all eligible damages. APTIM can also identify where latent damages may manifest soon or during construction, important considerations for the cost effectiveness and public safety of potential PA projects.

Alternate/Improved and Alternative Procedures Project Considerations

An unexpected consequence of disasters is that they provide an opportunity for community infrastructure renewal. The Parish, with the assistance of the APTIM project team, can review existing infrastructure and Parish assets to determine where the public interest could be better served by choosing not to restore a damaged facility or its function to the pre-disaster design or capacity.

FEMA PA allows applicants to not have to repair or replace disaster-damaged facilities in favor of applying those dollars elsewhere as an Alternate or an Alternative Procedures Project. An infrastructure capacity analysis will allow the Parish to address demographic changes and other factors driving the evolving needs of the Parish.

In addition to analyzing the evolving function and capacity needs of the Parish, our project team can analyze the optimal methods of delivering the PA program. With a greater understanding of damages, Parish risk tolerance, and the needs to accelerate recovery, our project team can help evaluate the pros and cons of the traditional “at-cost” PA program, as contrasted against the PAAP. The PAAP offers an accelerated option for program delivery but relies on acceptance of a concomitant level of risk through the acceptance of fixed grants, where the Parish would absorb potential cost overruns. APTIM’s Alternate/Improved and Alternative Procedures SME, Mr. Robert Bressett has over 15 years of experience helping subrecipients boost reimbursements and make their communities more resilient to future disasters with optional funding considerations. He was the “go to” consultant for GOHSEP for over 12 years.

Determining and documenting the disposition of the original facility, including the assurances that all eligible funding is captured, as well as any potential improvements are identified is necessary to request approval of an Alternate, Improved, or Alternative Procedures Project. Performing that analysis and documenting those results will occur at this phase as needed, with programmatic guidance from APTIM’s Policy SME, Robert Bressett. He was directly involved with over 600 such projects and has provided guidance for as many as 900, and has either written or reviewed all letters on behalf of sub-recipients to various GOHSEP State Coordinating Officers. This included the 16 A/I projects requested by Jefferson Parish for DR-1603 (Katrina) and DR 1786 (Gustav) that involved funding from approximately 40 PWs.

Hazard Mitigation Plan Considerations

After a declared disaster, Section 406 of the Stafford Act makes hazard mitigation funding available to affected jurisdictions’ damaged facilities. The federal government’s various hazard mitigation opportunities create eligible funding beyond the normal “base” funding level and allows restoration of pre-disaster design, function and capacity plus eligible codes and standards. This additional funding can be applied where cost-effective mitigation measures can be developed and implemented on damaged elements to protect those elements from a future similar incident.

The APTIM project team will work with Jefferson Parish in pursuing, developing, and evaluating all possible mitigation opportunities, which include opportunities under FEMA’s PA Program and measures available under FEMA’s Hazard Mitigation Assistance (HMA) programs, to include: HMGP, the Flood Mitigation Assistance Program (FMA) and the Pre-Disaster Mitigation Assistance Program (PDM).

APTIM has been successful in helping maximize FEMA hazard mitigation funding opportunities following disasters. We obtained \$1B+ from FEMA for mitigation measures on PA projects for public housing developments in New York City, and in several instances, were able to determine cost-effectiveness beyond 100% of the value of damaged facilities, to the financial advantage of the sub-recipient.

The APTIM project team will review permanent work PWs for mitigation opportunities. Typically, FEMA post-disaster mitigation policy, outlined in FEMA's PA Program and Policy Guide, allows measures to be considered automatically cost-effective when the mitigation cost does not exceed 15% of the value costs to repair damaged elements of a damaged. Further, the policy allows certain measures to be automatically cost-effective where the mitigation does not exceed 100% of the cost to repair elements of the damaged facility. Finally, when outside of the above-mentioned circumstances, hazard mitigation measures can be considered for funding by FEMA if the project passes a Benefit-Cost Analysis (BCA). The burden to identify and recommend cost effective mitigation measures falls on the sub-recipient agency. We will assist the Parish to identify and move mitigation measures forward to maximize mitigation funding opportunities, in accordance with FEMA policies.



Other Potential Mitigation Funding

If warranted, the APTIM project team will work collaboratively with Parish departments, key leadership, and stakeholders to promote mitigation ideas and opportunities. If the Parish has an interest, the project team can provide guidance on the use of other state and federal agencies, local funding, and funding from non-profit organizations that have mitigation programs, initiatives, and funding, including:

- ▶ US Army Corps of Engineers (USACE)
- ▶ US Department of Agriculture, Natural Resources and Conservation Service (NRCS)
- ▶ US Small Business Administration (SBA)
- ▶ US Housing and Urban Development (HUD)
- ▶ US Department of Transportation (DOT)
- ▶ US Environmental Protection Agency (EPA)
- ▶ US DOT, Federal Highway Administration (FHWA)
- ▶ US DOT, Federal Transportation Administration (FTA)

We have experienced SMEs available to the Parish to assist with Stafford Act Sections 404 and 406 mitigation, HMA and the Building Resilient Infrastructure Communities (BRIC) programs, and other mitigation opportunities that may be made available from other federal and state agencies, and other non-governmental sources. As directed, we will prepare mitigation proposals on all applicable PWs with 406 mitigations, and perform BCAs, as necessitated by the application of the PA mitigation policy.

The APTIM project team will work with Parish staff to develop HMA project applications to include identifying a clear scope of work. Any applications will conform to the guidelines provided by GOHSEP/FEMA, which will require, at a minimum, the disaster history of the area, a detailed scope of work that identifies what will be done, how, where, and why. Grant applications will also provide two alternatives—one of taking no action and at least one viable alternative that could be funded if the proposed activity cannot be funded. The application must demonstrate compliance with Floodplain and Wetlands Executive Orders, to which our subject matter experts will offer guidance. The application will also include a detailed BCA that demonstrates that the project is cost effective.

Some HMA projects are phased, meaning that insufficient information exists at the beginning of the project. During Phase 1, the APTIM project team will work with the Parish to obtain all the necessary documentation so that the State and FEMA can decide the project's eligibility. Examples of projects that are typically phased include complex drainage projects and projects where we may mitigate an earthen dam. Projects that do not require complicated feasibility studies and engineering studies can be funded without phasing.

Environmental & Historic Preservation Considerations

FEMA PA funding includes additional obligations due to its origins at the federal and state levels. Among many obligations created are those involving environmental, floodplain management, and historic preservation requirements found in National Environmental Policy Act (NEPA) and a host of other federal and Louisiana Revised Statutes. The APTIM project team is familiar with these requirements from its prior work in the state, specifically with marine infrastructure and coastal engineering. We will help to minimize the burden of compliance as PWs are developed.

Insurance & Duplication of Benefits Analysis

PA program rules require the Parish to offset FEMA assistance by the amount of any insurance proceeds received for eligible facilities, involving policies addressing both individual facilities and blanket policies, as outlined in the FEMA regulations, and the FEMA PAPPG. The APTIM project team will assist in interpreting insurance policies and proceeds to minimize duplication of benefits and maximize grant proceeds where policies are in effect.

In addition, our team can help risk managers comply with PA program “obtain and maintain” obligations for future property insurance requirements as dictated by FEMA policy.

Appeal & Audit Support, As Needed

While the APTIM project team will go to great lengths to resolve issues, craft effective eligibility justifications, and to preclude any necessary appeals or arbitrations, we stand ready with the capability to help on what can be a challenging process. Our CRIS system can help track ongoing appeals and ensure that no appeal or arbitration deadlines are missed, while also tracking the results of these efforts.



Stage 3: PW Reimbursement & Monitoring

The PW reimbursement and monitoring phase is in many ways the simplest. In this phase, each of the Parish's Project Worksheets have at least an initial version obligated or awarded (often referred to as a “V-0” or “vee-zero”). Emphasis in this stage is on execution of repair and restoration activities while pursuing robust reimbursement through the PA programs. Additionally, latent damages and change orders may be identified that could increase or decrease eligible funding.

Review Contractor Pay Apps & Change Orders

The APTIM project team will assist the Parish in reviewing contractor pay applications and change orders. This will assist in tracking eligible cost to the appropriate disaster and project worksheet to facilitate payment from GOHSEP. Change orders will be reviewed for eligibility and cost reasonableness to determine whether a PW version is necessary, or whether it should be incorporated into grant closeout efforts.

Scope Alignment/Engineering Assessments (Change Orders/PW Versions)

As alluded to previously, some assets or facilities that are highly specialized in nature may require a more technical evaluation during this phase. As work progresses, additional codes and standards requirements may also arise that were not previously considered. This may result in change orders and/or PW versions to align the grant scope of work with actual cost and work needed to restore the facility's pre-disaster function, design, and capacity. The APTIM project team will identify where this may be needed and work with GOHSEP and FEMA to create PW versions or push to closeout as necessary.

Prepare Reimbursement Requests

Projects that are deemed programmatically "large," currently \$1M or more, are reimbursed using "actual costs." Hence, these projects are only reimbursed as work is complete and the City incurs costs.

Quarterly Reports Evaluation & Submission

FEMA requires quarterly reports, which provide a status of work completed for each PW in a disaster, including percentage of work completed, any change in completion dates, estimated funding drawdowns, and other issues that could affect a successful project completion. Proper and timely completion of quarterly reports helps to ensure that FEMA does not prematurely, or punitively, de-obligate any of the Parish's recovery funding, in addition to providing a useful monitoring tool for the sub recipient. Data entered and updated throughout the project lifecycle in the APTIM application will allow for painless quarterly reporting regarding the construction and financial status of the Parish's disaster recovery efforts – visible at the damage site, project, disaster, or municipal level.

Payment Reconciliations

GOHSEP might provide the Parish with multiple payments in one transaction. The APTIM project Team will work with the Parish to reconcile payments to the disaster and PW level. In addition, we will identify short payments to address technical deficiencies in prior reimbursement requests so that these can be promptly and thoroughly addressed.

FEMA Time Extension Management

FEMA imposes relatively short "periods of performance" for work identified in their PWs. The APTIM project team will monitor disaster-wide time extensions and individual PW projects schedule to request more time where necessary. Proactive time extension requests will ensure timely reimbursements and accelerated closeout.



Stage 4: PW Closeout

PW closeout is the culmination of the FEMA PA disaster recovery effort. Closeout is the final opportunity to receive FEMA participation if costs have escalated. This process is where all documentation must be assembled in a final PW closeout packet that provides comprehensive and complete project details to protect against possible future audit. The receipt of all funds owed, with no complications or delays signifies a successful closeout.

Problem Resolution

The Stafford Act, Titles 44 of the Code of Federal Regulations and the National Flood Insurance Act disaster recovery programs are complex by nature. Projects involve a blend of federal, state, and local interests and there are often complex, seemingly contradictory regulatory requirements imposed by different stakeholders. The APTIM project team members have worked at all levels of government implementing these programs and understand the goals and incentives of each. Solutions are most attainable when there is an understanding of these interests and an ability to advocate for solutions that serve these interests.

Our problem-solving strategy will focus on technical solutions that not only maximize funding opportunity, but also ensure that the solutions are properly documented and resilient. Getting and keeping federal recovery dollars is essential to driving the success for the Parish.

Compile Final Source Documentation

APTIM will ensure the document management database has an electronic copy of all relevant source documentation, correspondence, and grant management materials, reducing or eliminating reliance on hardcopy files. Having one project file will accelerate closeout by reducing the need to constantly search for that missing sheet of paper.

Proof of Payment

As an “actual cost” program, the FEMA PA program relies on proof of payment for all transactions. This may include Electronic Funds Transfers (EFTs) or even physical cancelled checks. APTIM will make sure these are available and reconciled to disaster claims for closeout.

Final Cost Reconciliation

The final cost reconciliation process will ensure that all change orders and all contracts and/or Force Account records have been reviewed to ensure all possible funding has been captured to maximize the grant and recognize all costs required to complete the eligible scope of work.

Prepare PW Closeout Version

The final closeout version will be prepared in conjunction with GOHSEP and FEMA to capture the final cost reconciliation, change orders, subsequent environmental and historic preservation reviews, hazard mitigation, etc., to ensure final alignment of cost and scope of work. PW closeout is the culmination of the FEMA PA disaster recovery effort. Closeout is the final opportunity to obtain FEMA funds if any recovery costs have escalated. This process is also where all documentation must be assembled in a final PW closeout packet to protect against possible future audit. A successful closeout is signified by the receipt of all funds due, on an expeditious basis, with no complications or delays.

Obtain & Maintain Insurance Compliance Verification

Insurance may or may not play a substantial role in the Parish's recovery. Some of the Parish's infrastructure may be typically uninsurable and, therefore, lack requirements to obtain and maintain insurance in the future. Regardless, the APTIM project team will work with the Parish's Risk Manager and the State Commissioner of Insurance Regulation or FEMA as necessary to ensure that any "obtain and maintain" insurance requirements are met. This will not only facilitate closeout but will maximize eligibility for the Parish in any future FEMA-funded disasters to the same infrastructure.

Specific OIG Issues

The APTIM project team is aware that issues resulting from belated audits by the OIG may result in PA grant de-obligations. The APTIM Team has identified the most common reasons for such de-obligations sub-recipients:

- ▶ **Procurement:** The most encountered de-obligations are related to improper procurement, primarily for procurement of emergency response services for PA Categories A (Debris Removal) and B (Emergency Protective Measures). Subrecipient procurements must conform to procurement standards outlined in Title 2 of the Code of Federal Regulations (CFR) Parts 200.317-326. Subrecipients who have not been affected by recent storms are most likely to fall into this snare when procuring emergency work on a time and materials (T&M) basis without adherence to not-to-exceed thresholds for such contract costs. The OIG considers long term T&M contracts to be unreasonable once the demised work has become so repetitive that the work can be easily quantified, thus allowing for competitive procurement based upon unit pricing. APTIM pre-event engagement and review of the Parish's procurement policies and contracts against federal procurement standards outlined in 2 CFR 200.317-326 will mitigate such issues.
- ▶ **FEMA's Oversight:** The OIG recently published findings stating that FEMA did not have a method to track common issues. "Without proper visibility, FEMA is unable to identify, assess, respond, and report on risks as they emerge during disaster recovery operations." APTIM project team members have noticed the continuing decrease in PA basic knowledge among FEMA's field personnel. As such, the onus for confirming that subrecipients are fully complying with FEMA's regulations falls squarely upon the subrecipients themselves. APTIM's disaster management approach negates the potential impacts identified in the OIG findings by implementation of proven systems and processes administered by highly qualified SMEs.
- ▶ **Documentation:** Documentation of cost (contracts, invoices, proof of payment) is an absolute necessity for retention of FEMA grant funding. FEMA has agreed with the OIG and de-obligated purchases and contract costs, especially for materials, which are not properly documented to capture the purpose of purchases and subsequent proofs of payment on a project-by-project basis. Personal statements and good intentions are no substitute for contemporaneous records. APTIM's processes ensure that purchases made in haste are properly identified, recorded, and maintained. As a reminder, subrecipients must maintain records for up to three years after their final projects have been closed. Experience would suggest that the records retention period be expanded by a few more years.

Public Assistance Issues/Topics Specific to Jefferson Parish

- ▶ **Beaches:** FEMA's Public Assistance Program funds damage to engineered beaches. Sub-recipients must be able to demonstrate that engineered beaches have been routinely maintained to meet the same standards and specifications as originally constructed. As such, a systematic maintenance process must be established and adhered to qualify for FEMA funding when declared disasters cause damage to beaches. APTIM's Coastal Engineering group can assist with maintenance recommendations for any Parish-maintained beach.
- ▶ **Paved Roadways:** FEMA's policy for repairs to disaster-damaged roadways has changed over the past few years. Subrecipients must be prepared to offer relatively contemporaneous records that document the pre-event conditions of roadways. FEMA will not pay for loss of useful service life. Damage claims must be based upon visible, quantifiable damage. As such, damages must be quickly identified, documented with photographic evidence, and compared to recent maintenance records. If roadway damages are caused by flooding, core samples of damaged and undamaged roadway base and subbase have been proven by expert APTIM engineering witness testimony at arbitration hearings as the only viable means of proof. FEMA has even insinuated that unavoidable damage to roadways from emergency cut and toss operations may be conceived as contractor responsibility, dependent upon contract terms. Unfortunately, since first appeal submissions are often reviewed by the same FEMA personnel who ruled against subrecipient roadway damage claims (FEMA Determination Memorandums), subrecipients are typically forced into arbitration to obtain a fair hearing on disaster-related roadway damages.
- ▶ **Coastal Resiliency:** Coastal infrastructure is especially vulnerable to tropical storms. As such, any infrastructure that is damaged by storm activity should be assessed for possible mitigation funding. FEMA funds 406 mitigation in response to disaster-damaged facilities. Pre-disaster mitigation, formerly known as PDM, can fund resiliency of non-damaged infrastructure. The PDM program has been replaced by the BRIC and is applicable to the Parish. At the Parish's request, the APTIM project team will evaluate the facilities to recommend resiliency measures to harden critical facilities and infrastructure.

Meeting Project Goals

In most communities, recovering from a natural disaster begins on Day 1 before storm waters have receded or winds waned. APTIM's approach to project management stretches far into the future; we kick off each project by identifying a community's recovery needs, both short term and long-term.

APTIM structures our project schedule, management tools, and deliverables to fulfill Jefferson Parish's Project Goals:

- ▶ Assurance that the public health and safety are well guarded
- ▶ Assurance of full compliance of all Federal, State and Local Laws
- ▶ Assurance that the Parish will receive the maximum available funds entitled by regulation
- ▶ Development of Hazard Mitigation measures to minimize the impact of future disasters and making the facilities disaster resistant, and more resilient
- ▶ High quality service and value to the taxpayers of Jefferson Parish

Our well-defined project management system allows us to complete numerous complex projects on schedule, within budget, and with a high level of client satisfaction. It features:

- ▶ A formal and documented project management program
- ▶ A fully integrated project control system for estimating, tracking, controlling cost and schedule, and measuring technical progress
- ▶ A Program Manager, as the single point of contact to ensure proper communication with the Parish
- ▶ Availability to respond to requests and meet the Parish's requirements for timely delivery of quality work products
- ▶ Complete project support capabilities, including comprehensive quality assurance, and project controls functions implemented by experienced, dedicated staff

We believe in collaborating with our clients to achieve their goals and objectives. We make it a priority because collaboration is just good project management.

Summary of Approach Against Required Scope of Work/Services

The APTIM Team will help the Parish in procuring FEMA PA, based on federal and state requirements. We will provide the broad-based support services designated to help maximize federal funding, expedite the process, and retain funds during the closeout process. Although we are prepared to provide additional services, if requested, APTIM's services to be performed shall include, but are not limited to the following, noted in **Figure C-8**, as requested in the RFP. We have also included who will perform the service and where each scope of service will be addressed in the APTIM Program Management Phase. The APTIM Program Manager will collaborate with Parish officials and be responsible for ensuring each Scope of Service is completed as efficiently, and timely as practicable. Parish officials' coordination with the APTIM Program Manager may direct the APTIM Team to perform any of the scope of services required.

Scope of Work/Services	Performed By	Stage 1 	Stage 2 	Stage 3 	Stage 4 
Ensure Parish disaster recovery and restoration processes comply with laws, regulations, and guidelines to maximize reimbursement for eligible disaster expenditures and to minimize timing for reimbursement.	Grants Management Specialists – Technical and Policy	•	•	•	•
Develop and execute processes for obtaining, analyzing, and gathering field documentation; including, but not limited to, records related to procured goods and services, timekeeping, and force account labor and equipment.	Grants Management Specialists – Technical, Reimbursements and Civil/Coastal	•	•		
Possess the expertise and be able to prepare FEMA PA emergency and permanent work project estimates including, but not limited to cost estimating, developing detailed damage descriptions and dimensions, scope of work, and accurate force account labor and equipment summary reports.	Grants Management Specialists – Technical, Reimbursements and Civil/Coastal		•		
Assist parish departments with services post-impact to perform damage assessments, inspections, and project management services from impact to repair.	Grants Management Specialists – Technical and Civil/Coastal	•	•	•	
Collaborate with federal, state, and local staff, as needed, on project formulation, including damage assessments, information gathering, project development, preparation of project worksheets, and other project submittals to GOHSEP and/or FEMA.	Grants Management Specialists – Technical, Policy and Civil/Coastal	•	•	•	
Coordinate and interface with engineering and design efforts for repair and/or construction of damaged facilities and infrastructure that will comply with FEMA eligibility and cost reasonableness determinations. Provide oversight of repair/construction efforts to ensure work complies with applicable PWs and related FEMA PA grant requirements and guidelines.	Grants Management Specialists – Technical & Civil/Coastal	•	•	•	
Identify and address inappropriate insurance reductions and ensure insurance policy compliance with federal and state regulations.	Grants Management Specialists – Reimbursements and Policy		•	•	
Develop strategies and maximize formulation of 406 hazard mitigation projects.	Grants Management Specialists – Reimbursements and Mitigation		•	•	

Scope of Work/Services	Performed By	Stage	Stage	Stage	Stage
		1	2	3	4
Possess the expertise and assist in all disaster-recovery financial reimbursement and reporting processes required by FEMA, state, or other agency. Ensure there are no duplications of submission if varying agencies are involved.	Grants Management Specialists – Reimbursements and Mitigation		•	•	
Possess the expertise and assist the Parish through FEMA, and state (or other agency) guidelines to capture force account labor eligible expenses accurately for timesheets and project cost accounting. Assist in the review of Parish personnel policies to ensure compliance for eligible cost reimbursement.	Grants Management Specialist – Reimbursements		•		
Challenge, where applicable, FEMA on their previous work, eligibility determination, cost valuations, project formulation and inaccurate statements on the Public Assistance Program including appeal determinations.	Grants Management Specialist – Technical, Policy and Appeals/Dispute Resolution		•	•	•
Assist the Public Safety Grants & Administration Department with cash flow, advance, and reimbursement requests and documentation in anticipation of future audits.	Grants Management Specialist – Reimbursements		•	•	•
Possess the expertise and assist the Parish through federal, and state (or other agency) guidelines to ensure the capture of relevant data related to procured goods and services. Provide oversight of contractor's billing to ensure all costs eligible for disaster grant funding are documented and claimed.	Grants Management Specialists – Technical and Reimbursement		•	•	•
Develop processes for ensuring compliance related to contract monitoring and contract close-out as required by federal, state, or other agencies.	Grants Management Specialists – Technical and Reimbursement	•			
Possess the expertise and assist the Parish with identifying other disaster recovery funding opportunities, including additional federal recovery programs.	CDBG-Other Funding		•	•	
Assist with recovery of FEMA PA cost share funding through CDBG-DR applications.	CDBG-Other Funding	•		•	

Figure C-8. APTIM Approach to Scope of Work/Services.

Experienced Disaster Recovery & Infrastructure Personnel

As demonstrated by **Figure C-9**, APTIM’s experience is extensive, broad-based, and overlapping, leaving nothing to chance regarding the depth of our assets and our recovery strength on behalf of the Parish. The figure illustrates the competency of our proposed project staff in relationship to the requirements of the RFQ.

Key Personnel	Grant Management/ Compliance	FEMA PA	FEMA Hazard Mitigation	Appeals/Dispute Resolution	Insurance	Project Close-out	Other Funding Sources (CDBG)
Hamid Alizadeh – Program Manager (APTIM)	•	•				•	•
Steve Kral – Principal & Advisor (APTIM)	•	•	•	•	•		•
Ryan Bingham – Deputy Project Manager (APTIM)	•	•	•				•
Scott Canaday, CEM – Grant Management/Closeout SME, Documentation Specialist (APTIM)	•	•	•	•	•		
Nicole Maddox – Grant Management/Closeout SME (APTIM)	•	•	•	•	•	•	•
Michael Reedy – Recovery Programs Technical SME, Appeals/ Dispute Resolution SME & Hazard Mitigation SME (APTIM)	•	•	•	•	•	•	
Robert Bressett – Recovery Programs Policy SME & Appeals/Dispute Resolution SME (APTIM)	•	•	•	•	•	•	
Samantha Danchuk, PhD, PE – Hazard Mitigation SME (APTIM)	•	•	•	•			•
Jane Brogan – CDBG/Funding SME (APTIM)	•	•		•		•	•
Emily Thompson – CDBG/Funding SME (APTIM)	•		•			•	•
Beau Suthard – Architectural/Engineering SME (APTIM)	•	•	•	•			
Nicole Sharp, PE – Architectural/Engineering SME (APTIM)	•	•					

Figure C-9. APTIM Staff Qualifications.



D – PROPOSER QUALIFICATIONS AND EXPERIENCE

D. Proposer Qualifications and Experience

D.1 History and Background of the Proposer

APTIM is one of the world's foremost engineering and construction firms with extensive experience in planning, engineering, design, construction, and overall management of large and small projects for public agencies and private industry. We strive to provide our clients with superior professional services that include design and construction related services, construction management, inspection, operation and maintenance, environmental assessment, and cost estimating. Our professionals ensure that projects are carefully coordinated, agency standards are followed, cost budgets are adhered to, and schedule and budget commitments are met.



For 30+ years, APTIM has provided full-scale engineering, facility decommissioning, environmental remediation, operations and maintenance, program/construction management, and design and construction services for government and private sector clients, including remediation and restoration of contaminated sites, emergency response, and disaster recovery. With a combined workforce of more than 4,100 people in over 55 corporate/project offices and more than 100 field offices, we provide reliable solutions while maintaining a relentless focus on safety and an uncompromising standard of quality.

Our personnel are highly valued for their expertise and dedication to client services and quality products. These attributes have resulted in an impressively high rate of repeat clients and the many kudos we receive for our work. We have a well-balanced mix of engineers, construction experts, project management professionals, and scientists to provide superior service to our clients.

Why the APTIM Team?

Local Presence

APTIM has two Louisiana offices to support this contract:

Baton Rouge Headquarter Office
4171 Essen Lane
Baton Rouge, LA 70809

Jefferson Parish Office
2424 Edenborn Avenue
Metairie, LA 70001

Our Baton Rouge headquarters building has a full range of professional resources available to the project and our Metairie office is located within Jefferson Parish.



Figure D-1. APTIM Locations.

With an office and staff located within Jefferson Parish, we have a vested interest in the health and safety of this community. At APTIM, our high degree of client satisfaction is an outcome of our focus on the goals of clients and our drive to provide the highest possible quality of services. Our success in this is demonstrated by the steady growth in repeat clients and consecutive contracts. In our table of similar experience, you will note all of the clients has been with us more than 10 years; some for many decades.

Commitment to Louisiana

Louisiana is our home state; we have maintained our headquarters in Baton Rouge since 2002. Our commitment to Louisiana's communities is genuine and has been demonstrated for the past two decades. We have worked with commercial clients in the state, but most particularly with state agencies, parishes, and municipalities.

We have demonstrated our loyalty again and again as Louisiana has faced multiple trials through natural disasters. We have cleaned up the streets and houses, done emergency repairs to vital systems, housed victims and helped them find permanent homes. We have supported charities and organizations that support our communities. **Some examples of our work with Jefferson Parish include:**

- ▶ West Barataria Marsh Creation Corridor Project WBA-01 – Jefferson Parish Coastal Management Department
- ▶ Lower Lafitte Shoreline Stabilization at Bayou Rigolettes – Jefferson Parish Department of Environmental Affairs
- ▶ Jefferson Parish Road Bond Program – East Bank (Program Management Services)
- ▶ Jefferson Parish Submerged Roads Program (Engineering and Construction Administration Services)
- ▶ Jefferson Parish Clearview Parkway and St. Peter's Ditch Drainage Improvements (Drainage Investigation, Engineering, and Construction Administration)
- ▶ Jefferson Parish Mississippi River Long Distance Sediment Pipeline, Phase 2 (Engineering and Permitting Services)
- ▶ Lafitte Area Independent Levee District Tidal Levee Protection System
 - ▶ Rosethorn Basin (Engineering and Construction Administration)
 - ▶ Paillet Basin (Engineering and Construction Administration)
 - ▶ Goose Bayou-Pen Levee Basin (Engineering and Construction Administration)
 - ▶ Lower Barataria Basin (Engineering and Construction Administration) Jefferson Parish Coastal
- ▶ Jefferson Parish Coastal Impact Assistance Program (CIAP) (Program Management)
 - ▶ Lower Lafitte Shoreline Stabilization (Engineering and Construction Administration)
 - ▶ Bay Side Segmented Breakwaters at Grand Isle (Engineering and Construction Administration)
 - ▶ Fifi Island Restoration (Engineering and Construction Administration)



Figure D-2. APTIM, Hurricane Katrina Jackson Barracks.

Full-Service Firm

APTIM distinguishes itself from the competition because we are a full-service firm, able to perform maintenance of water infrastructure systems; environmental engineering and remediation; infrastructure engineering, procurement, and construction; program and construction management; and disaster response and recovery services for public- and private-sector clients.

Our disaster recovery and grants management services are significantly enhanced by extensive engineering, construction, and environmental capabilities and experience gained while overseeing a vast portfolio of infrastructure, municipal facility, housing, and coastal restoration construction projects representing \$50+B in construction value. **Figure D-3** showcases our additional services.

Mitigation is Built into our Approach to Recovery/Resiliency

Disasters, natural or man-made, are devastating events that we cannot stop but only prepare for. Mitigation is the future, a set of proactive solutions to plan for the unplanned, and help to offset the risk of damage resulting from future events. Differentiating ourselves, we seek to break the cycle of damage, reconstruction, and repeated damage. Our mitigation plans allow state and local governments to organize their long-term strategies for protecting people and property from future natural hazard events after assessing all disaster risk and vulnerabilities common to their planning areas. APTIM's Mitigation goals include:

- ▶ **Assisting communities with mitigation investments** that reduce risks to people, homes, neighborhoods, cultural and historic resources, ecosystems, and lifelines such as communications, energy, transportation, and water. We accomplish this by developing recommendations for relevant mitigation investments, and increasing investments by building the capacity of communities to address their risks, using common measures to aid decision-making for mitigation investment.
- ▶ **Coordinating mitigation investments to reduce risk by:**



Figure D-3. APTIM's Umbrella of Grant Management and Compliance includes a Broad Set of Complementary Services.

- ▶ Encouraging information sharing, strategy coordination and identifying potential funding sources to access and use.
- ▶ Developing strategic alternatives for mitigation investments to select the most cost-effective and reasonable actions.
- ▶ Improving coordination with all community stakeholders to more accurately forecast where mitigation can be effective and when to pursue mitigation investments.
- ▶ **Making mitigation investment standard practice** by calling for the whole community to consider mitigation in all investment decisions, especially for buildings and infrastructure. This includes adopting and enforcing consensus-based codes, standards and specifications, and safeguarding lifelines and critical infrastructure.
- ▶ **Providing resilience or adaptation planning as a branch of mitigation planning in coastal areas.** Resilience activities tend to be operated within the environmental or special initiative sectors of government rather than the traditional emergency management sector charged with mitigation planning. As an example, risk mitigation may result in communities relocating away from hazards. Resilience develops a community that adapts to the hazards and flourishes sustainably. Resiliency plans yield higher resolution recommendations for mitigation of specific infrastructure types and localized risks, policy for future climate conditions and holistic strategies for addressing risks within interdependencies of assets and services inclusive of the comprehensive objectives of government and the community. Resilience planning is the precursor for capital planning, program management, direct implementation, and future risk adaptation.
- ▶ **Collaborating with Sustainability to offer mitigation services.** As a corollary to adaptation, mitigation has dual meaning for the resilience sector. Mitigation of greenhouse gas emissions includes pursuit of energy and fuel efficiency, transition to renewable energy from fossil fuels, waste reduction, carbon management in supply chain and carbon capture. Greenhouse gas mitigation planning is part of holistic adaptation planning since future risks cannot be mitigated without addressing the driving factors of climate risks.

A History of Grant Management Services

For more than thirty years, clients across the Nation have turned to the professionals of APTIM for their Grant Program needs. We are confident in our ability to assist clients with managing various grant funding streams, determining funding priorities and minimizing delays when applying. Our ability to assist the Parish with your grant management needs includes:

- ▶ **Trusted Advisors:** Our team members bring decades of grant management experience providing strategic policy advisory services against potential Office of Inspector General (OIG) audits reducing the likelihood of mispending, leading to project de-obligations.
- ▶ **Collaboration with All Stakeholders:** By working collaboratively with internal and external stakeholders, our objective is to reduce delays, avoid appeals, and maximize/prioritize funding.
- ▶ **Exceptional Grant Management Skills and Software:** APTIM offers adept and highly engaged grant management specialists, with experience serving as the technical and program policy assistance on both sides of the fence, as a consultant and within for the consultant. Uniquely qualified with extensive federal funding experience and specialized experience addressing the economic needs of our clients, we will deliver. Prioritizing the use of innovative technology, we will utilize our interactive database that will be tailored to the specific needs of the Parish to provide overall financial grant management.

► **Dedicated Subject Matter Experts: Not just a title**, our team of experts have worked for federal, state, and local clients for many years. Our Grant specialists can locate funding not well known or tapped into, an advantage we can provide to the Parish.

APTIM maintains a poised position, ready to step in and assist with navigating the Parish through the complex federal grant processes. Leveraging a network built on years of experience working in various capacities, we will be able to locate and capture funding for the Parish's recovery needs to make a vital difference in the community.

To the Parish, we will bring the resources of a global environmental and infrastructure firm combined with local resources who specialize in innovative emergency management solutions. APTIM is one of the largest and most experienced emergency management firms in the US. We have played a role in the recovery of most major federally declared natural disasters since 1992—including the Northridge Earthquake, Joplin Tornado, Hurricanes Katrina, Rita, Gustav, Ike, Isaac, Sandy, Matthew, and, most recently, Harvey, Maria, and Irma.

Currently, APTIM provides FEMA and HUD-CDBG disaster response and recovery services to state and local agency clients in Louisiana and North Carolina (Region IV), California (Region IX), Florida and Texas (Region VI), New York, New Jersey, Puerto Rico and the US Virgin Islands (Region II). **We are also a longtime FEMA contractor having held FEMA Individual Assistance (IA)/Technical Assistance Contracts (TAC) (IATAC) I, II, and III and currently hold the FEMA IA Support Contract (IASC) and FEMA LOGHOUSE Contract.** Many of our team members have worked at all three levels of grant management—grantor, grantee and subgrantee.

A timeline of our grant management experience is included in **Figure D-4** and gives a snapshot of some of the work that we have performed over the past ten years. The timeline covers a diverse range of activities and locations that APTIM successfully mobilized and executed in compliance with federal, state, and local requirements.

APTIM GRANT MANAGEMENT EXPERIENCE



Our team has experience with federal government agencies and their grant management processes, across a wide variety of agencies including:

- Environmental Protection Agency (EPA)
- Federal Emergency Management Agency (FEMA)
- National Oceanic and Atmospheric Association (NOAA)
- U.S. Army Corps of Engineers (USACE)
- U.S. Department of Housing and Urban Development (HUD)
- U.S. Department of Veterans Affairs (VA)
- U.S. Fish and Wildlife Services (FWS)

\$70B IN MANAGED FUNDS ALLOCATED TO INFRASTRUCTURE

APTIM GRANT MANAGEMENT SERVICES



\$30+B
MANAGED FOR RECOVERY PROGRAMS
4,400+
EMPLOYEES WORLDWIDE

Figure D-4. Representative APTIM Projects over the Last Ten Years.

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APTIM Capabilities

APTIM is an adaptive, agile, diverse, customer focused and mission-driven grant management workforce that thrives on innovation and takes initiative. APTIM's promise is to support critical missions and community life by managing and delivering complex programs and projects in disaster response, environmental, infrastructure, mission critical services, and energy and resiliency.

APTIM has the required skills and qualifications across all scope items identified for this contract.

Figure D-5 presents a sampling of our project performances relevant to requirements from the RFP, illustrating our experience across the range of capability required by the Parish.

APTIM Client/Project	Period of Performance	Grant Management/ Compliance	FEMA PA	FEMA Hazard Mitigation	Appeals/Dispute Resolution	Insurance	Close-out	Other Funding Sources (CDBG)
City of Bonita Springs - FEMA PA and HMGP Services	Ongoing	●	●	●				
LA Governor's Office of Homeland Security & Emergency Preparedness - Technical Assistance for Stafford Act Programs: PA, Hazard Mitigation	2016–2019	●	●	●	●	●	●	
Paradise Irrigation District (PID), CA - Disaster Recovery Management	Ongoing	●	●	●	●	●	●	●
Village of Estero - FEMA PA Grant Program	2018–2022	●	●	●				
Beauregard Electric Cooperative, Inc. - FEMA Public Assistance Consulting	Ongoing	●	●	●				
Bossier Parish - Disaster Recovery and Emergency Planning Services–Severe Storms and Flooding	Ongoing	●	●	●	●		●	
Lake Madrone Water District, CA - Grants Appeal Support	Ongoing	●	●		●			●
New York City Housing Authority, Hurricane Sandy Resiliency and Renewal Program	Ongoing	●	●	●	●	●	●	●
Port Authority of New York and New Jersey (PANYNJ) - Storm Mitigation, Resilience, Insurance Adjustment, and Grant Management Services for Federally Funded Projects	Ongoing	●	●	●	●	●	●	●
City of Houston, TX, Housing and Development Department - Master PM for Disaster Recovery Projects	Ongoing	●		●				●
El Dorado Irrigation District (EID), CA - Disaster Recovery Management	Ongoing	●	●	●		●		
Merced County, CA - Grant Management Support	2017–2018	●	●	●			●	
Monterey County, CA - Disaster Recovery Services	Ongoing	●						

Figure D-5. APTIM Project Capabilities.

Experience with Coastal Engineering

APTIM Coastal and Maritime Services

As Jefferson Parish is aware, APTIM has extensive coastal engineering experience. APTIM performed the design and construction administration services for the Barataria Marsh Restoration Project utilizing the Long-Distance Sediment Pipeline to deliver Mississippi River bottom material to restore approximately 516 acres of marsh. In addition, APTIM coastal engineering professionals performed the design and construction administration services for the West Barataria Marsh Restoration utilizing the Long-Distance Sediment Corridor to deliver Mississippi River bottom material to restore 421 acres of marsh referenced as area WBA-03. Further, was directly involved with the Bayside Segmented Breakwaters projects. This project consisted of engineering, design, preparation of plans and specifications, and construction management for constructing 25-350 ft. long breakwaters on the bayside of Grand Isle, Louisiana. The purpose of this project was to reduce erosion on the bay side of Grand Isle. This project was part of Louisiana's Coastal Impact Assistance Program.

APTIM's coastal engineers and scientists work closely together with our disaster recovery and FEMA funding specialists to develop complete solutions to coastal resiliency issues. This integrated approach provides our clients with solutions that address current concerns, build resilience into all elements of the project, secure funding, and allow room for adaptation in the future under changing and often not fully known conditions.

The APTIM coastal team is multidisciplinary with coastal engineering, restoration, and coastal and marine science services specializing in all aspects of beach nourishment, shoreline protection projects, coastal structures, coastal and marine mapping, and coastal resiliency and sea-level rise work. Repair of marinas, beaches, coastal structures, and systems requires understanding of coastal processes and the interaction with the built structure.

Our experts understand the science and engineering needed to provide resilient solutions. Our team includes two board certified Diplomates in Coastal Engineering—recognition of expertise given to fewer than 100 professionals in the US by the Academy of Coastal, Ocean, Port, and Navigation Engineers. Our professionals who specialize in the various coastal disciplines work together daily to develop and implement a broad range of coastal projects. Having consistent working relationships between our integrated disciplines facilitates working with state and federal agencies to navigate regulatory agency coordination and eligibility reviews more efficiently.

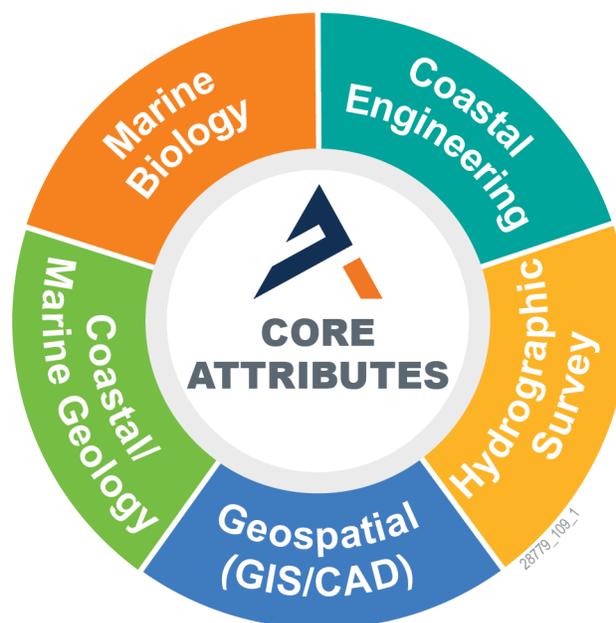


Figure D-6. Integrated Approach Address Current Concerns, Builds Resilience into all Project Elements, and Secures Funding.

Our team of professional engineers, recovery specialists, numerical modelers, geologists, biologists, surveyors, remote sensing and mapping scientists, and GIS/CAD specialists handle all phases of coastal projects from reconnaissance through feasibility and design level studies to construction management and post-construction monitoring.

Our professionals have extensive experience with all aspects of coastal engineering including the development and implementation of large and small-scale coastal projects (ocean and bayside), including beach nourishment, environmental restoration, shoreline stabilization, coastal structure (seawalls/bulkheads, breakwater fields, groins, jetties), navigation, marinas and boat facilities, numerical modeling of coastal processes, marine geophysical and geotechnical investigations, topographic and hydrographic surveys, NEPA compliance and permitting, environmental monitoring, and FEMA claims.

APTIM is extremely experienced providing resilience or adaptation planning as a branch of mitigation planning in coastal areas. Resilience activities tend to be operated within the environmental or special initiative sectors of government rather than the traditional emergency management sector charged with mitigation planning. As an example, risk mitigation may result in communities relocating away from hazards. Resilience develops a community that adapts to the hazards and flourishes sustainably. Resiliency plans yield higher resolution recommendations for mitigation of specific infrastructure types and localized risks, policy for future climate conditions and holistic strategies for addressing risks within interdependencies of assets and services inclusive of the comprehensive objectives of government and the community. Resilience planning is the precursor for capital planning, program management, direct implementation, and future risk adaptation.

Volume of Merchants

APTIM is privileged to be serving the disaster recovery needs of Bossier Parish, LA; PID, CA; El Dorado Irrigation District, CA; Port of New York and New Jersey, NY/NJ; New York City Housing Authority, NY; and Lake Madrone Water District, CA, with an estimated total of eligible funding of over \$5.2B.

Customer Satisfaction Capabilities

When a client is willing to provide a reference strongly suggests their satisfaction with our customer service capabilities, such as: Paradise Irrigation District, Port Authority of New York and New Jersey, LA GOHSEP, Bossier Parish, Beauregard Electric Cooperative, and the New York City Housing Authority.

However, when a client renews your contract speaks volumes to our Customer Satisfaction capabilities, as did Paradise Irrigation District (since 2019 and ongoing), Beauregard Electric Cooperative (since 2020 and ongoing, New York City Housing Authority (since 2014 and ongoing, Port of New York and New Jersey (since 2015 and ongoing), and the Village of Estero, FL (since 2018 and ongoing).

In addition, during our tenure with LA GOHSEP August 2016 – August 2019), GOHSEP was more than satisfied with APTIM's performance and quality of work. We provided resolution to issues that eased the likelihood of future problems for the state and its applicants. We successfully closed the contract at \$3M under the initial estimated annual budget. During our tenure with GOHSEP we assisted in facilitating an estimated \$16.1B in eligible Grant Funding for Louisiana Applicants including Jefferson Parish with over \$13B reimbursed for over 38,000 PWs. Recently, the GOHSEP PA Technical Services Section Chief, Mr. Daniel Crothers, and the GOHSEP Technical Services Manager, Mr. Unmesh Kirtikar gave Messrs. Mike Reedy and Robert Bressett high praise for their participation during their APTIM tenures with the state.

Obligated Funding to Date

As a result of teaming with APTIM, Merced County received \$615,000 in reimbursable funds from \$713,000 in eligible funds. The recovered funding included FEMA and Community Development Assistance Act (CDAA) program funding from DR-4301 and DR-4308.

Due to the expertise of APTIM engineers during CBCA Arbitration proceedings, Bossier Parish was awarded \$25M for their Paved Roads PW, that FEMA had originally formulated for \$0. This same PW was increased to approximately \$32M because of APTIM's and the Parish's collaborative efforts. The current eligible obligated funding available to the Parish is approximately \$36M (approximately \$27M based on the 75% federal cost share). To date, the Parish has received approximately \$9M, due to currently open projects.

Receipt of Reimbursed Funding to Date

As a result of APTIM's efforts for Beauregard Electric Cooperative, their estimated eligible funding is approximately \$100M.

As a result of the wildfires in California, APTIM has assisted Paradise Irrigation District with potentially receiving an estimated \$122M in eligible funding.

PANYNJ estimated eligible funding: \$2B/2015 ongoing

El Dorado Irrigation District: eligible funding: \$8M/2021 ongoing

Performance Standards (RFP Part V)

In Part V of the RFP, the Parish listed Performance Standards and Performance Measurement/Evaluation criteria for the Proposers consideration. We offer the following comments on each standard and evaluation criteria presented based on our historical contract performance:

5.1 Performance Requirements Reference

- ▶ **Timely submission of quarterly reports.** APTIM submits all reports in a timely manner.
- ▶ **Proposer's submission of accurate and itemized applications and reimbursement requests.** APTIM consistently submits accurate and itemized applications and reimbursement requests.
- ▶ **Proposer's adherence to project schedule completion dates.** APTIM consistently adheres to all project schedule milestones and completion dates.
- ▶ **Proposer's ability to provide key personnel with knowledge and technical expertise.** APTIM's professionals bring decades of federal funding management experience providing strategic policy advisory services for a variety of state and local clients with an unparalleled eye towards infrastructure needs.

5.2 Performance Measurement/Evaluation

APTIM has served in St. Mary Parish for many years providing services similar to those as outlined in the RFP. The following responses reflect our work with St. Mary Levee District Flood Fights of 2011, 2016, 2019, Hurricane Delta and Laura:

- ▶ Did the Proposer obtain reimbursement for all obligated funding? **Yes**
- ▶ Did the Proposer respond to Parish management in a timely manner? **Yes**

- ▶ Were complaints/problems resolved in a reasonable and cooperative manner? **N/A – no complaints received about our services**
- ▶ Was the Proposer reasonable and responsive to FEMA requests for information? **Yes**
- ▶ Were changes in key personnel made? How often? With or without notice? **No, additional staff was brought in to accommodate workload but PM remained the same.**
- ▶ Was staff knowledgeable in key areas of funding assistance? **Yes**

D.2 Staff Qualifications

Whether helping communities recover from natural disasters, safeguarding and maintaining critical power infrastructure, or providing PA, we go to work each day knowing we are making a positive impact on the world. These are huge responsibilities, and our team takes pride in providing a successful path forward. Thinking differently and challenging the norm is our mandate. Every day we plan for the unexpected, develop critical insights, and deliver new, creative, and adaptive solutions. Bringing sought after experts and a proven record of accomplishment providing strategic grant guidance and compliance to the Parish. A key strength of the APTIM team is our highly qualified professionals who have honed their skills responding to the pre- and post-disaster needs of our local, state, and federal government clients, including providing financial grants management assistance and the development of emergency preparedness products.

A Local Team

Due to the uptick of natural disasters and the increases in intensity throughout the US, our emergency management group continues to expand. We will staff this engagement with as many local resources as possible and utilize our nationwide cadre of SMEs as needed to navigate the complex requirements associated with grants and grant-funded projects.

Overall, our experience with Louisiana disaster recovery landscape will allow us to identify the best path forward in terms of funding both short-term and long-term recovery and resiliency needs and projects. Our team of experts will work with the Parish every step of the way to ensure a smooth, compliant, and robust recovery operation. If selected to continue our support of the Parish, our staff will be available to immediately start work upon activation to support any short-term and long-term needs. Upon request for recovery services or in the event of a disaster, APTIM will quickly deploy additional staff as required (Figure D-7).



Figure D-7. APTIM Louisiana Offices.

Organizational Chart

Presenting our core project staff, by specialty, the organization and reporting lines from our Program Manager to all key personnel depicts the way our team will work collaboratively. **Figure D-8** shows a chart of organization for the FEMA Public Assistance Grant Management Services to the Parish.

Subconsultants

APTIM will not be utilizing any subconsultants for this opportunity. However, if the need arises, we are fully committed to working with MBE/DBE firms.

Supplier Diversity Policy Statement

“APTIM has a Supplier Diversity Program that is a company-wide initiative and has produced exceptional results due to the strong dedication of management and the entire APTIM Team. Elements of our award-winning program include diverse supplier recruitment, supplier development, mentoring, outreach, and comprehensive reporting. This strategy ensures that APTIM not only complies with all government regulations and commercial requirements, but that we offer small, small disadvantaged, women owned, HUBZone SB, veteran-owned and service-disabled veteran-owned small businesses opportunities to grow and succeed. Supplier Diversity is an integral part of our overall Diversity initiative. It’s not just good business; it’s the right thing to do. Everyone has a responsibility to engage in and promote APTIM’s commitment, policy, and procedures for the ongoing development of supplier diversity and to encourage small and minority business participation for all our projects.”

-Mark Fallon, APTIM CEO

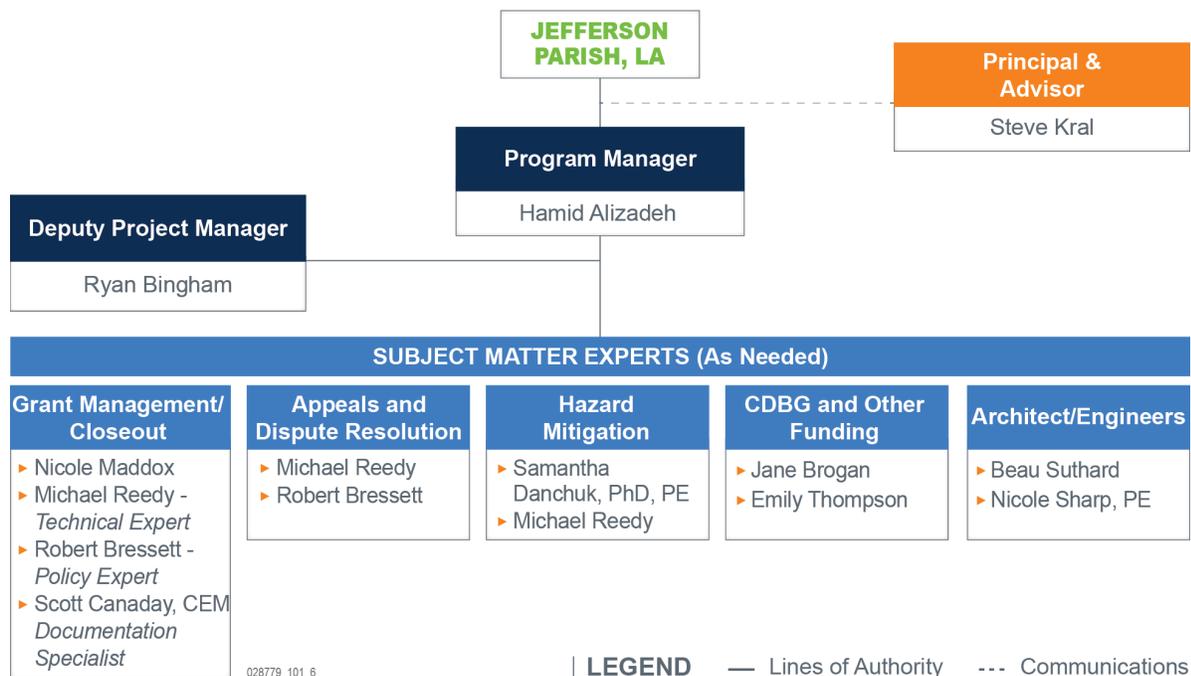


Figure D-8. APTIM Org Chart.

Past and Present Commitment to Small and Emerging Business and Contributions toward a Diverse Market Place

APTIM is an experienced large business prime contractor providing support to government and commercial clients. Throughout our history, we have consistently complied with federal regulations and mandates governing small business (SB) engagement and goal achievement on our contracts. This award-winning contracting culture corresponds directly to APTIM's focused and ongoing devotion to supplier diversity. APTIM has subcontracted over \$964M or 76% of our subcontracting to small businesses over the past five years under our federal contracts.

Supplier Diversity Program Policy and Procedures: Our dedication to empowering SBs is outlined in the policy statement issued by APTIM's CEO. This policy statement emphasizes the corporate commitment to an effective Supplier Diversity Program. It asserts that it is the practice of the company to identify and provide maximum practicable opportunities for small, minority and socioeconomic businesses. APTIM also has a supplier diversity procedure that is incorporated into our procurement practices which states opportunities will be identified by the procurement staff for small businesses.

Achievements

In 2020, APTIM was awarded the Society of American Military Engineers (SAME) Large Business award for outstanding utilization of SBs in our programs. Additionally, APTIM's Small Business Liaison Officer (SBLO) received the Industry Small Business Advocate Award at SAME's 2021 Federal Small Business Conference.

APTIM has been recognized for unique innovations and corporate initiatives launched to increase engagement of SBs and diverse businesses. We received 12 Nunn-Perry Awards for excellence in the DoD Mentor-Protégé Program, including six consecutive awards.



Staff Experience

The Parish will benefit from the diverse in-house expertise of staff, our proven processes and management tools for delivering and/or supporting programs effectively. Regardless of size, scale, or complexity. Using as many local resources as possible and tapping into our nationwide cadre of SMEs as needed to navigate the complex requirements associated with disaster grants and grant-funded projects. Overall, our familiarity with Louisiana's disaster recovery landscape will allow us to identify the best path forward in terms of funding both short-term and long-term recovery and resiliency projects. Our team will work with the Parish every step of the way to ensure a smooth, yet compliant and robust management operation.

The APTIM Team's staff are introduced in the following paragraphs.

Steve Kral – Principal & Advisor

Mr. Kral is a senior subject matter expert with over 21 years of experience in emergency management with a particular focus on federal grant management. He is a facilitative leader with experience in consensus building and change management at the federal, state, and local levels of government. He brings extensive experience writing grants, strategy plans, rules, and regulations.

Hamid Alizadeh – Program Manager

Mr. Alizadeh brings a wealth of experience working with Jefferson Parish for the last 40 years such as but not limited to Jefferson Parish. Mandeville Water Pollution Control Facilities, Bidirectional Culvert Crossings on Esplanade Avenue, Drainage Capital Improvements, Westbank Water Chlorination System, Marrero Wastewater Treatment Plant, Urban Flood Control Project, Coastal Wetlands Conservation and Restoration Plan.

Working as a civil design engineer since 1981, Mr. Alizadeh has developed conceptual, preliminary, and final designs for several structural, drainage, and mechanical design projects. He is experienced in construction management, cost analysis, project coordination and scheduling, construction cost estimates, construction supervision, daily QC/QA reporting, review and approval of shop drawings, and verification of contractor's submittals and invoicing.

Ryan Bingham–Deputy Project Manager

Mr. Bingham has four years of experience in emergency operations and disaster response, with significant experience identifying and managing risks through multiple lines of effort to protect assets, property, and equipment. He has significant experience reconciling issues with invoices to facilitate reimbursements for applicants.

Scott Canaday, CEM–Grant Management/Closeout SME Documentation Specialist

Mr. Canaday supports grant projects including compliance, planning, logistics, analyses, and reporting. He is a Certified Energy Manager with 13 years in response and recovery operations in Florida. He is a problem solver who coordinates with all parties to identify and implement the best solution to reach the greatest good for the community. Additionally, Mr. Canaday is the current Project Manager for the City's FEMA Public Assistance and Hazard Mitigation Grant Program Services contract.

Nicole Maddox–Grant Management/Closeout SME

Ms. Maddox has more than 16 years of experience in grant management for disaster recovery. She has experience dealing with various grant programs from US Fish and Wildlife, the U.S. Environmental Protection Agency, National Oceanic and Atmospheric Association, Federal Emergency Management Agency, US Department of Veterans Affairs, and the US Army Corps of Engineers.

Michael Reedy–Grant Management/Closeout Technical SME, Appeals/Dispute Resolution SME and Hazard Mitigation SME

Mr. Reedy is a technical consultant with 17 years in grant management. His experience includes grant coordination, assessment, project reviews, scope, problem resolution, project development, compliance, reimbursements, and closeout. He has defended applicant claims and increased funding as an expert estimator. Mr. Reedy provides grants services to Beauregard Electric Cooperative.

Robert Bressett–Grant Management/Closeout Policy SME and Appeals/Dispute Resolution SME

Mr. Bressett has extensive experience working with FEMA and GOHSEP to implement changes in its Disaster Recovery PA program to include actual cost reimbursements for consolidation and change of location projects. He has over 15 years of experience assisting FEMA recipients and sub-recipients with optional funding alternatives. He has expert-level knowledge of the FEMA PA program, its associated federal regulations and policies.

Samantha Danchuk, PhD, PE–Hazard Mitigation SME

Dr. Danchuk is a recognized resiliency technical and policy expert. She brings seven years' experience as a resilience officer and capital program administrator, and 10 years as a resilience engineer. She has led the development of local climate action plans, sea level rise projections, critical infrastructure assessments and implemented national award-winning strategic resilience policy.

Jane Brogan–CDBG/Funding SME

Ms. Brogan is a grants funding expert with a particular background in HUD Community Development Block Grants (CDBG) and climate adaptation programs. She has over 15 years' experience managing Federal funded programs including design and implementation, regulatory interpretation, compliance, unmet needs assessments, policy development, and writing Action Plans.

Emily Thompson–CDBG/Funding SME

Ms. Thompson advised and provided counsel on all stages of a CDBG-DR grantee's life-cycle for the last eight years as a strategic partner and lawyer for GOSR. She designed and implemented the housing program portfolio and oversaw procurement and contract administration. Her extensive CDBG-DR experience stems from "boots on the ground" training.

Beau Suthard, PG–Architectural/Engineering SME

Mr. Suthard, PG is a Marine Geophysicist who has been with APTIM since 2005 conducting coastal and marine geophysical, geotechnical, and hydrographic surveys. He is responsible for the coordination, planning, execution, and processing of APTIM geophysical and geotechnical investigations. In addition, Mr. Suthard is responsible for program management of APTIM projects with the Town of Longboat Key Comprehensive Beach Management Plan, Pinellas County Coastal Management Program.

Nicole Sharp, PE– Architectural/Engineering SME

Ms. Sharp has 12 years of broad experience in project management, planning, design, permitting, engineering, plans and specifications, field investigations, construction oversight, and feasibility studies of coastal engineering projects. In 2017, she was awarded the Local Government Award from Florida Shore and Beach Preservation Association for outstanding leadership for the preservation of Florida's beaches, especially for involvement with numerous beach and inlet projects in Florida's comprehensive beach management program.

Resumes

HAMID ALIZADEH, PE

PROGRAM MANAGER | APTIM

Professional Qualifications

Mr. Hamid Alizadeh has developed conceptual, preliminary, and final designs for drainage and roadway design, water and wastewater design (collection and treatment), and mechanical and structural design projects. He routinely obtains permits for environmental and construction work in Louisiana. Environmental permits he has obtained include stormwater discharge, dredging, wetland, construction, fire marshal, and ADA permits. He has pulled permits for Louisiana Department of Natural Resources, USACE, and EPA as well as local and other state agencies. He is experienced in construction management; cost analysis; project coordination and scheduling; construction cost estimates; construction supervision; daily QA/QC reporting; verification of contractor's submittals; and invoicing. As an environmental engineer, he is experienced in a variety of environmental projects such as wetland conservation and restoration (identification, development, ranking, and reporting of potential Breaux Bill wetland restoration projects), site one and site two environmental assessments, NPDES discharge permit, LDEQ solid waste permit, EPA permit, and stormwater pollution prevention plan. Mr. Alizadeh evaluated and prepared environmental studies and components of a USACE flood protection feasibility study on behalf of the local sponsors.

Relevant Experience

Aptim Environmental and Infrastructure, LLC; Civil Market Sector Lead; Senior Operations Manager; 1992 - Present

Project Manager, Various Infrastructure and Emergency Response Projects, Jefferson Parish, Louisiana

Managed a wide range of projects in Jefferson Parish including the following:

- ▶ Hurricane Katrina Unwatering, Old Metairie Area, Metairie, Louisiana
- ▶ Jefferson Parish Streets Repair Project, Jefferson Parish, Louisiana
- ▶ BP Deepwater Horizon Oil Spill Response, Coastal Louisiana

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**YEARS OF
PROFESSIONAL
EXPERIENCE**

EDUCATION

- ▶ Master of Science, Civil Engineering, University of New Orleans, New Orleans, LA, 1985
- ▶ Bachelor of Science, Civil Engineering, University of New Orleans, New Orleans, LA, 1981

PROFESSIONAL LICENSE / CERTIFICATIONS / TRAINING

- ▶ Professional Engineer (Civil and Environmental): Louisiana, License No. 24449

- ▶ Hurricanes Katrina, Rita, Gustav and Ike Disaster Debris Monitoring and Management, Jefferson Parish, Louisiana
- ▶ Bidirectional Culvert Crossings on W. Esplanade Avenue, Jefferson Parish, Louisiana
- ▶ Drainage Capital Improvements, Jefferson Parish, Louisiana
- ▶ Westbank Water Chlorination System, Jefferson Parish, Louisiana

Project Manager, Various Infrastructure and Emergency Response Projects, City of Kenner, Kenner, Louisiana

Managed a wide range of projects for the City of Kenner including the following:

- ▶ Hurricane Gustav/Ike Disaster Debris Monitoring and Management, City of Kenner, Kenner, Louisiana
- ▶ Webster Street Roadway and Drainage Improvements, City of Kenner, Kenner, Louisiana
- ▶ Jackson Street Roadway and Drainage Improvements Water Treatment Plant, City of Kenner, Kenner, Louisiana
- ▶ Urban Flood Control Project, City of Kenner, Kenner, Louisiana

Project Manager, Various Infrastructure and Emergency Response Projects, Lafitte, Louisiana

Managed a wide range of projects for Lafitte including the following:

- ▶ BP Deepwater Horizon Oil Spill Response, Lafitte, Louisiana
- ▶ Disaster Planning and Response Assistance, Lafitte, Louisiana
- ▶ Goose Bayou Levee Alignment, Lafitte, Louisiana
- ▶ Crown Point Water Quality Study and Report, Lafitte, Louisiana
- ▶ Canal E and Fleming Canal Pump Stations, Lafitte, Louisiana

Project Manager, Various Infrastructure Projects, Southeast Louisiana Flood Protection Authority - West (formerly West Jefferson Levee District), Jefferson Parish, Louisiana

Managed a wide range of projects the West Jefferson Levee District including the following:

- ▶ Crown Point Levee Alignment, Jefferson Parish, Louisiana
- ▶ Permits for Barataria and Rosethorne, Jefferson Parish, Louisiana
- ▶ Gloria Drive and Lafitte Tidal Flood Protection Projects, Jefferson

SCOTT CANADAY, CEM

GRANT MANAGEMENT/CLOSEOUT SME, DOCUMENTATION SPECIALIST | APTIM

Professional Qualifications

Mr. Scott Canaday supports grant projects including compliance, planning, logistics, analyses and reporting. He is a Certified Energy Manager with 12 years in response and recovery operations. He is a problem solver who coordinates with all parties to identify and implement the best solution to reach the greatest good for the community. His experience ranges from compliance and reporting for the City of Bonita Springs, Florida Grant Program to documentation reviews for water districts and utilities (Paradise Irrigation District, El Dorado Irrigation District, Lake Madrone and BECI).

Relevant Experience

Aptim Environmental and Infrastructure, LLC, Project Manager, January 2019–Present

Disaster recovery and emergency management support including compliance, planning, logistics, analyses and reporting. Providing FEMA PA and HMGP support. Reviewed and identified projects for funding, Researched, developed, and submitted grant applications. Aided Bonita Springs in CDBG-DR Home Buy-out Grant Program to identify work qualifications. Representative projects include:

- ▶ Grants management and compliance for water districts and utilities (Paradise Irrigation District, El Dorado Irrigation District, Lake Madrone and Beauregard Electric Cooperative)
- ▶ COVID-19 emergency management logistics support for State of Florida Division of Emergency Management
- ▶ Grant program assistance to City of Bonita Springs, FL

Innovative Emergency Management, Disaster Recovery Center Manager (DRC), November 2018–January 2019

Representing two DRCs for State of Georgia supporting Hurricane Michael. Liaised with FEMA and GEMA and the applicants affected by Hurricane Michael. Responsible for accurate documentation of survivor needs and resources available from GEMA. Provided problem solving and out of the box thinking to solve disaster problems and present appropriate assistance to survivors. Collaborated with other DRC managers and FEMA representative.

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**YEARS OF
PROFESSIONAL
EXPERIENCE**

EDUCATION

- ▶ MS, Fire Service Leadership, Grand Canyon University, 2006
- ▶ BS, Aeronautical Technology, Perdue University, 1992
- ▶ AS, Aviation Maintenance, Vincennes University, 1990

PROFESSIONAL LICENSE/ CERTIFICATIONS/ TRAINING

- ▶ CEM
- ▶ IS-00546 Continuity of Operations (COOP) Awareness, FEMA, 2019
- ▶ L550 Continuity of Operations Planner, FL Governors Hurricane Conference, 2019

PROFESSIONAL SKILLS

- ▶ Policy Advisor/Subject Matter Expert
- ▶ FEMA PA Grants Management, including COVID-19
- ▶ FEMA PA Program Delivery Manager Certified
- ▶ Grants Closeout
- ▶ Project Management
- ▶ PNP Expertise
- ▶ RS Means Cost Estimates
- ▶ Damage Assessments

Highlands County, Various Roles, January 2009–September 2018

Operations Supervisor, Highlands County Fire Services

May 2018–September 2018

Assisted in design, development, and implementation of the County plan for fire control. Coordinated overall County fire protection to include technical advice and assistance to the County and Fire Districts relating to fire prevention, combat of fire, hazardous materials, and specialized rescue and training. Conducted fire safety inspections of, and reviews building plans for code compliance and responded and other emergency conditions to include on-the-scene fighting of fire. On the Light Technical Rescue Team (LTRT) led tasked with team training, equipment acquisitions, maintenance, and response. Directed the activities of fire prevention as it relates to new and existing building inspections and plans reviews. Provided oversight and technical assistance support of County volunteer fire districts related to training, prevention, standard operating procedures, and emergency response. Maintained a professional and safe unit and work area adhering to established safety policies and the image desired for the organization.

Public Safety Director, Highlands County Public Safety

September 2016–May 2018

Participated in and oversaw the development, interpretation, and implementation of all divisional procedures and policies to ensure compliance with county, state and federal policies, guidelines, rules, regulations, and laws. Consulted with the County Administration and participated in the formulation of policy decisions regarding divisions and programs under the Public Safety Department and throughout the County Administration. Prepared and presented various reports to the County Administrator, County Commission, and federal, state, and local agencies. Oversaw and was responsible for the preparation, review, and administration of yearly and long-range operational budget plans to ensure optimum efficiency and effective use of the various revenues and funds under his or her supervision where applicable. Directed the formulation and development of budgets and presented relevant data to the Board at each stage of the annual budget cycle for all divisions within the Public Safety Department. Served on various boards representing and acting as Public Safety Department liaison for the Board of County Commissioners and collaborated with managers on selecting, promoting, developing (mentoring, coaching, and training), appraising, disciplining, and discharging department employees pursuant to procedures adopted by the Board. Met regularly with the various managers to discuss the status of projects, programs, plans, and related issues. Established for the various divisions of the Public Safety Department objectives and associated goals designed to achieve the most effective and efficient operation possible.

STEVE KRAL

PRINCIPAL & ADVISOR | APTIM

Professional Qualifications

Mr. Steve Kral is a senior level director with expertise in disaster recovery, emergency management, public safety, and homeland security. He has 25 years of program/project management experience in both private and public sectors environments. He is a facilitative leader with experience in consensus building and change management, strong and lasting professional relationships with federal, state, and local emergency management and homeland security officials. He brings extensive experience writing grants, providing testimony, creating strategy plans, and drafting legislative bills, rules, and regulations.

Relevant Experience

Aptim Environmental and Infrastructure, LLC, Director, Disaster Recovery and Resiliency, February 2021–Present

Director for APTIM's Disaster Recovery and Resiliency practice. Leads teams of disaster recovery and resiliency specialists, project managers, and consultants to assist local, state, and federal clients with grant management and financial services.

Principal Consultant, USDA Grant Development Services, Bartlett Grain Company, KS

Assisted Bartlett to apply for USDA Partnerships for Climate-Smart Commodities funding for a soybean crushing facility to produce renewable fuels. Applied experience in grant management and understanding of federal funding to develop application for funding to strengthen Bartlett's business and help Kansas soybean farmers.

Project Executive, Disaster Recovery, Paradise Irrigation District (PID), CA

Supporting PID with the development and submittal of funding grant applications, following extensive damage to the water system from the 2018 Camp Fire. Assisted PID in negotiating with FEMA and Cal OES for maximum eligible benefits. Helped implement HMGP/404 applications aimed at mitigating future fire damage.

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**YEARS OF
PROFESSIONAL
EXPERIENCE**

EDUCATION

- ▶ MS, Homeland Defense and Security, Naval Post Graduate School, Monterey, CA, 2013
- ▶ BS, Biology, Fordham University, Bronx, NY

BOARDS & COMMISSIONS

- ▶ National Capital Region Critical Infrastructure Protection (CIP) Regional Programmatic Working Group (RPWG)
- ▶ Washington, D.C. Emergency Preparedness Council (EPC)
- ▶ Arlington County (VA) Emergency Preparedness Advisory Council (EPAC)
- ▶ Homeland Security Executive Committee of Chief Administrators for NCR

PROFESSIONAL SKILLS

- ▶ Policy Advisor/Subject Matter Expert
- ▶ FEMA PA Grants Management, including COVID-19
- ▶ FEMA PA Program Delivery Manager Certified
- ▶ Grants Closeout
- ▶ Project Management
- ▶ PNP Expertise
- ▶ RS Means Cost Estimates
- ▶ Damage Assessments

Project Executive, Grant Management Consulting, Beauregard Electric Cooperative, Inc. (BECI), LA

Providing comprehensive support, guidance, project formulation, and documentation preparation for FEMA PA Projects for DR-4559-LA (Laura); DR-4570-LA (Delta); and DR-4590-LA (Winter Storm) in support of all Debris (Category A), and Emergency Protective Measures (Category B).

Director, ATCS, P.L.C., Herndon, VA, March 2020–March 2021

Directed analytical and strategic emergency management projects for a range of federal, state, and local public safety clients. Served as an emergency management advisor to jurisdictional executive leadership and worked closely with agencies and whole community stakeholders to collectively prepare a jurisdiction to protect, prevent, mitigate, respond to, and recover from natural, adversarial, and technological emergencies. Implemented innovative work in assessing community resiliency, infrastructure vulnerability challenges, all-hazards planning, as well as assessment/evaluation of specific homeland security and emergency management programs.

Senior Manager, Ernst & Young, LLC, Washington, D.C. Metro Area, June 2016–March 2020

Directed the continued growth and expansion of the Public Safety and Recovery practice units. Exemplified extensive experience in the preparedness, response, and post-disaster recovery industries. Worked with state/local governments and not-for-profits, helping them meet their emergency management needs by providing professional disaster recovery expertise and proven grant management techniques. Since joining Ernst & Young on May 2, 2016, the practice has been awarded four additional state, local and urban area contracts to assist public safety agencies with effective preparedness and resiliency approaches.

Executive Vice President & Director of Emergency Management Programs, Tidal Basin Government Consulting, LLC, Alexandria, VA, February 2013–May 2016

Directed analytical and strategic planning projects for a range of federal, state, and local public safety clients in the areas of emergency management and homeland security. Developed revolutionary work in the realms of assessing community resiliency, cyber-security challenges, all-hazards planning, as well as the assessment/evaluation of specific homeland security and emergency management programs.

Former positions include:

- ▶ Washington Metropolitan Area Transit Authority, Homeland Security Government Relations Officer, Washington, DC, December 2009–February 2013
- ▶ District of Columbia Government, Senior Policy Advisor, Homeland Security and Emergency Management Agency, Washington, DC, October 2007–December 2009
- ▶ District of Columbia Government, Administrator, Office of Homeland Security Grants and Program Management, Washington, DC, June 2004–September 2007

RYAN BINGHAM

DEPUTY PROJECT MANAGER | APTIM

Professional Qualifications

Mr. Ryan Bingham brings over four years of experience in emergency operations and disaster response, with significant experience identifying and managing risks through multiple lines of effort to protect assets, property, and equipment. Experience working in an Emergency Operations Center at both the state and military level. Mr. Bingham managed over 500 personnel for the Georgia Air National Guard, COVID-19 response activities, developed disaster response plans and procedures, and successfully passed OSHA and EPA inspections. He also holds certifications pertaining to hazardous materials, FEMA, and logistics management and has a comprehensive background in cross-functional team building, adaptive leadership, humanitarian service, training and leveraging digital project technology tools.

Relevant Experience

Aptim Environmental and Infrastructure, LLC, Project Analyst, March 2021–Present

Coordinating with APTIM's disaster relief management team to prepare for deployment to South Carolina in the capacity as Emergency Operations Center Liaison for the Disaster and Technical Support Services scope of work.

Georgia Air National Guard Emergency Management Specialist, July 2018–Present

Planning COVID-19 response activities for retirement communities and tracking field personnel. Oversaw all emergency management operations for a 500+ personnel organization and developed disaster response policies, plans, and procedures. Prepared contingency response plans, disaster preparedness plans, and plans to ensure the mitigation of casualties and damage from natural disasters or major accidents. Managed and monitored the organization's Internal Inspection Program, passing all OSHA and EPA inspections.

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YEARS OF PROFESSIONAL EXPERIENCE

EDUCATION

- ▶ MA, Emergency Management and Homeland Security, Arizona State University
- ▶ BS, Criminal Justice, California State University–Sacramento

Certifications and Training

- ▶ Program Delivery Manager Operations Certification
- ▶ Recognized as an expert in FEMA, 100, 200, 700, and 800
- ▶ IS-230: Fundamentals of Emergency Management
- ▶ IS-1000: Public Assistance Program and Eligibility
- ▶ IS-1001: Public Assistance Delivery Model

PROFESSIONAL SKILLS

- ▶ Strong disaster response and emergency operations support capability

Gwinnett County Fire and Emergency Services, Fire Medic, October 2018– October 2020

Coordinated with dispatchers, fire department personnel, and emergency medical team members to treat patients. Analyzed, planned, and implemented defensive response actions for hazardous materials incidents. Assisted in fire suppression duties, utilizing a variety of equipment to contain and extinguish fires, contained spilled, hazardous chemicals from being released into the environment.

US Air Force, Aircraft Structural Maintainer, July 2014–June 2018

Certified train-the-trainer – supervised three to five personnel on daily job responsibilities. Led aircraft safety program targeted at keeping personnel out of danger while working around the aircraft. Headed hazardous materials and supply programs aimed at streamlining logistics and safe handling and disposal practices. Stored, handled, and disposed of hazardous waste and materials according to environmental standards and the Air Force Hazardous Materials Program.

NICOLE MADDOX

GRANT MANAGEMENT/CLOSEOUT SME | APTIM

Professional Qualifications

Ms. Nicole Maddox has more than 16 years of experience in project and grant management. She works with California Water Districts to maximize grant results, including Paradise Irrigation District, El Dorado Irrigation District and Lake Madrone. She has extensive experience across a range of state and federal grant programs.

Relevant Experience

Aptim Environmental and Infrastructure, LLC, Senior Disaster Recovery Specialist, October 2017–Present
Project Manager/Lead Consultant, Post-Fire Disaster Public Assistance and Disaster Recovery Management Services, Paradise Irrigation District (PID), Paradise, CA

July 2019–Present

Currently serving as the project manager and lead consultant for APTIM's engagement with PID, who suffered devastating losses from the 2018 Camp Fire. PID selected APTIM to provide FEMA PA and HMGP services. Coordinates the District's interactions with FEMA and Cal OES. The nature of the catastrophic damage has paved the way for innovative applications of code upgrades, mitigation, and alternative projects resulting in a recovery that will lead to a more resilient community. Projects current total over \$120M across PA and HMGP programs, and PID is expected to secure DWSRF money in 2022 to meet their local cost share.

Project Manager, FEMA PA Grant Management Support, Texas Division of Emergency Management, Austin, TX

April 2018–August 2020

Served on APTIM's subcontract to CohnReznick, in support of their contract with the Texas Division of Emergency Management (TDEM). Led a team of five grant specialists assigned to manage Hurricane Harvey recovery for 160 subrecipients in Hardin, Jefferson, and Orange Counties.

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**YEARS OF
PROFESSIONAL
EXPERIENCE**

EDUCATION

- ▶ BS, Microbiology, Southwest Texas State University, San Marcos, Texas, 2001

PROFESSIONAL LICENSE/ CERTIFICATIONS/ TRAINING

- ▶ E-202 Debris Management
- ▶ E-381 & E-382 Public Assistance Operations I & II
- ▶ IS-100 Introduction to the Incident Command System
- ▶ IS-200 ICS for Single Resources and Initial Action Incidents
- ▶ IS-300 Intermediate ICS for Expanding Incidents
- ▶ IS-400 Advanced ICS for Command and General Staff, Complex Incidents and MACS
- ▶ IS-393 Introduction to Mitigation

PROFESSIONAL SKILLS

- ▶ 16 years FEMA grants experience
- ▶ Invited speaker on Recovering from Wildfire Impacts to Water Systems - AWWA, CA-NV Section (June 2022) and Texas Emergency Management Conference (March 2022)

Duties included fulfilling the recipient role in meetings and calls on behalf of TDEM, advocating for sub-recipients during project formulation and helping to resolve any issues between the sub-recipients and FEMA.

Team Lead, Puerto Rico Response and Immediate Needs Funding in Response to Hurricanes Irma and Maria, Puerto Rico

October 2017–April 2018

Provided grant management support to subgrantees in Puerto Rico, leading the project specialist team assigned to formulate projects for the social services agencies (Departments of Health, Education, Family, as well as the University of Puerto Rico). Led an effort that resolved bureaucratic misunderstandings and resulted in the release of nearly \$1M in expedited funding to the Department of Family. Protected the Department of Health from losing additional cost share during the 100% emergency response period by correcting policy misunderstanding among FEMA personnel.

Grant Reporting Coordinator/FEMA/TDEM Coordinator, Texas General Land Office, Austin, TX

October 2012–October 2017

Managed the financial, programmatic, and small business reporting on federal grants to the state agency. Dealt with various grant programs from USFW, EPA, NOAA, FEMA, and USACE. Served on the Agency Storm Team as FEMA/TDEM Coordinator, managed the agency's involvement with FEMA PA and represented the GLO on FEMA's Debris Task Force for DR-4332. Trained in the new FEMA PA program delivery model when it began in 2017. Managed the agency's active FEMA PA project worksheets from DR-1606, DR-1791, DR-4266 and DR-4272.

Assistant PA Officer, Texas Division of Emergency Management, Austin, TX

November 2010–October 2012

Worked with over 100 Hurricane Ike (DR-1791) applicants in the FEMA PA Program to maximize their grant benefits, prepare them for audit (if necessary) and bring them to an accurate closeout. Served as a debris SME on DR-4029 (Bastrop Wildfire). Conducted Preliminary Damage Assessments in several jurisdictions in response to a variety of disasters (flood, wildfire, tornado). Conducted training for local entities on various aspects of emergency management and disaster preparedness. Certified by FEMA to teach the G-202 Debris Management Course.

MICHAEL REEDY

GRANT MANAGEMENT/CLOSEOUT TECHNICAL SME, APPEALS/DISPUTE RESOLUTION SME
& HAZARD MITIGATION SME | APTIM

Professional Qualifications

Mr. Michael Reedy is a technical consultant with 17 years in grant management. His experience includes grant coordination, assessment, project reviews, scope, problem resolution, project development, compliance, reimbursements and closeout. He has defended applicant claims and increased funding as an expert estimator. Mr. Reedy has expertise and certification for performing BCA using FEMA approved BCA software.

Relevant Experience

Aptim Environmental and Infrastructure, LLC, Public Assistance Specialist, August 2016–Present

Senior Specialist, Public Assistance Consulting and Technical Specialist Support

October 2019–Present

Provides ongoing grant consultation, technical assistance, and BCA support to APTIM clients including for BECI, Hurricane Matthew (Mattamuskeet Association, NC), Hurricane Michael (Jackson County, FL), Hurricanes Irma and Maria (Puerto Rico), and the Camp Fire wildfires (PID, Paradise, CA). Utilizes his exceptional communication skills and extensive grant expertise to guide Applicants/Sub-recipients through the complex workings to ensure compliance and to reach consensus agreement with all stake holders. Also authored major components of numerous proposals and created interactive modules (EXCEL for BCA) to assist in preliminary identification of BCR ratios for 404 HMGP projects. Current value of estimates and 406 mitigation proposals is \$100M+.

Senior Cost Analyst/Estimator, Stafford Act and National Flood Programs: Technical Assistance Contract, GOHSEP, Baton Rouge, LA

August 2016–August 2019

Responded to high priority projects and issues in response to GOHSEP management. Projects include scope alignment, reasonable cost determinations, evaluation of applicant issues with recommended remedies, site assessments, and technical support.

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**YEARS OF
PROFESSIONAL
EXPERIENCE**

EDUCATION

- ▶ Bachelor of Science, Biology, Centenary College of Louisiana

PROFESSIONAL LICENSE/ CERTIFICATIONS/ TRAINING

- ▶ FEMA BCA
- ▶ FEMA CEF Certification, 2007
- ▶ FEMA Debris Task Force Leader Certification, 2009
- ▶ FEMA Ops I and II
- ▶ FEMA Delivery Model

PROFESSIONAL SKILLS

- ▶ 19 years of continuous construction experience
- ▶ 17 years of FEMA and state-related disaster experience
- ▶ 7 years of FEMA-specific assignments as a Project Specialist; CEF Specialist; Building Assessment Specialist; Debris Specialist; Closeout Specialist
- ▶ 1-1/2 years as Lead Estimator and Insurance Recovery negotiator
- ▶ 7 years in state disaster recovery positions as Public Assistance Coordinator, State Applicant Liaison Lead, and Technical Services Team Lead
- ▶ USACE Distinctive Service Award
- ▶ 3 times Expert Witness (CEF, Estimator) before the CBCA

Supervised and guided the day-to-day activities of 12 to 22 on-site and off-site cost analysts and served as the QAQC reviewer of all GOHSEP Technical Team projects and reasonable cost submissions. During this period, APTIM's team reconciled over \$300M in funding (reasonable cost validation) and increased project worksheet obligations by over \$40M through scope alignment and correction.

**Cost Estimator/Analyst, Katrina and Subsequent Disaster Declarations,
Governor's Office of Homeland Security and Emergency Preparedness,
Baton Rouge, LA**

September 2015–August 2016

Prepared detailed estimates for six projects for scope alignment resulting in additional obligations totaling \$14.2M. Appeared before the CBCA to offer expert testimony and to defend repair cost estimates for one sub-recipient resulting in an award of \$370K in additional project worksheet obligations.

**Closeout Specialist, Public Assistance, for Disasters Prior to Hurricane Sandy,
State of New Jersey**

December 2014–September 2015

Closed out 38 large projects and 17 small projects during this period. Produced highly accurate detailed analyses supported by concise and authoritative programmatic narratives and spreadsheets.

**Senior Disaster Recovery Specialist, DR4086: Hurricane Sandy Public Assistance
Program. Witt-O'Brien's, State of New Jersey**

December 2012–November 2014

Served as a Senior Disaster Consultant and Lead State Applicant's Liaison (PAC) assisting 70 different applicants (municipalities, county agencies, schools, PNPs, and utility authorities).

**State PAC, Disaster Strategies and Ideas, DR4068: Tropical Storm Debbie, Public
Assistance Program, State of Florida Emergency Management**

December 2012–November 2014

Advised and assisted County PACs and FEMA in demonstrating the correct procedure for assessing and documenting roads, buildings, and infrastructure.

ROBERT BRESSETT

GRANT MANAGEMENT/CLOSEOUT POLICY SME & APPEALS/DISPUTE RESOLUTION SME | APTIM

Professional Qualifications

Mr. Robert Bressett has expert-level knowledge of grants laws, regulations and policies. He has over 17 years of experience assisting grant recipients and subrecipients to navigate complex and challenging programs. He has helped hundreds of sub-recipients across the country to identify grant solutions and maximize reimbursements, including clients such as Paradise Irrigation District and Beauregard Electric Cooperative.

Relevant Experience

Aptim Environmental and Infrastructure, LLC, Senior Consultant V, September 2016–Present

Subject Matter Expert, Program and Construction Management Contract, Bossier Parish, LA

September 2019–Present

Currently a senior level consultant to Bossier Parish providing FEMA PA policy guidance. The APTIM contract with this client is a result of the disastrous flooding that occurred in Louisiana in 2016. Besides being an SME in FEMA Policy, also educating this client with GOHSEP Grants Management and Closeout processes. Also educating the parish with how FEMA uses the Cost Estimating Format, and its associated allocations (Parts A-H) to formulate project worksheets for damaged facilities' restoration. Also involved with the cost analysis and reconciliation of APTIM's billable expenses and FEMA eligible funding to facilitate FEMA funding reimbursement and projects' closeout involving over \$3M. Participation includes coordination and meetings with the Parishes' and APTIM's engineers and attorneys, and sub-contractors; as well as the GOHSEP Technical Section, Grants Management, and Closeout Teams.

Subject Matter Expert, FEMA Public Assistance Policy, Paradise Irrigation District (PID), Paradise, CA

October 2019–Present

The Town of Paradise, CA suffered devastating losses from the 2018 Camp Fire. Paradise Irrigation District, which provides water distribution for the city, selected APTIM to provide FEMA PA and HMGP services.

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**YEARS OF
PROFESSIONAL
EXPERIENCE**

EDUCATION

- ▶ MS, Environmental Management, University of Houston, Houston, Texas, 1984
- ▶ BS, Environmental Management, University of Houston, Houston, Texas, 1981

TRAINING

- ▶ FEMA Public Assistance Operations I and II (10 - day FEMA Classroom Training)
- ▶ Emergency Management Institute – Over 15 Incident Command System Courses.
- ▶ Other Professional Training Courses: Project Management, Data Analytics, and Critical Thinking

PROFESSIONAL SKILLS

- ▶ 17 years of FEMA disaster recovery operations experience
- ▶ Critical Thinker

Attends meetings with FEMA and the California Governor's Office of Emergency Services (Cal OES) and provides FEMA PA policy analysis and guidance. This includes the potential use of PID's damaged facilities funding for optional applications, such as for alternate, improved, or alternative procedures projects (Stafford Act Section 428). Also assisting with developing and reviewing critical Damage Description narratives, Scopes of Work narratives, Detailed Estimates, and Hazard Mitigation submittals representing over \$100M in FEMA funding.

Senior Advisor for Public Assistance, Public Assistance Policy and Problem Resolution, Stafford Act and National Flood Insurance Act Programs: Technical Assistance Contract, Louisiana Governor's Office of Homeland Security and Emergency Preparedness (GOHSEP), Baton Rouge, LA

September 2016–August 2019

Supported the LA GOHSEP disaster recovery operations since March 2007. Considered by his peers and the client to be a valuable resource for his knowledge of the FEMA PA Program, including his knowledge of the federal regulations (Title 44 Code of Federal Regulations Parts 9, 51 and 206), the 9500 Series policies; the 2016, 2017, 2018 and 2020 Public Assistance Program and Policy Guides; and the Sandy Recovery Improvement Act's Public Assistance Alternative Procedures Pilot Program for Permanent Work and Debris Operations. Frequently called upon for his critical thinking skills to assist applicants/sub-recipients, as well as GOHSEP management and staff to resolve FEMA program issues. Directly and indirectly involved in over 2,000 projects and wrote over a thousand letters and "white papers" on behalf of GOHSEP and the State of Louisiana applicants.

Technical Applicant Liaison/Problem Resolution Officer, Stafford Act and National Flood Insurance Act Programs: Technical Assistance Contract, GOHSEP, Baton Rouge, LA

March 2007–September 2016

Instrumental in assisting in establishing the LA GOHSEP Alternate and Improved Projects Team and working with FEMA to implement changes in the Public Assistance/Disaster Recovery program to include actual cost reimbursements for consolidation and change of location projects, as well as the contents contained within the improved project guidelines. In addition, was one of GOHSEP's Principal Public Assistance Instructors.

**State Applicant Liaison–Virginia, Various Projects, Virginia Department of
Emergency Management (VDEM), Richmond, VA**

September 2006–March 2007

Assisted the State’s applicants with project formulation to document disaster damages to develop scopes of work and relevant cost estimates for potential reimbursement of eligible expenses incurred because of disasters. In addition, reviewed various project worksheets developed for the City of Alexandria, reviewed by FEMA, not authored by Mr. Bressett, to investigate the issues raised by FEMA for their eligibility/ applicability. The purpose of this exercise was to increase the potential monies available to the City for FEMA reimbursement. FEMA’s original estimates totaled less than \$4M, but was able to have the City funded at more than \$10M.

**FEMA Public Assistance Coordinator–Louisiana, Hurricanes Katrina and Rita
Recovery, New Orleans, LA**

August 2005–July 2006

Primary responsibility was the point of contact for Parish government officials to assist them in restoring all key governmental elements back to pre-disaster conditions, such as the reconstruction of public buildings, restoration of emergency communications, rebuilding of sheriff and fire departments, as well as assisting the Parish with all applicable FEMA grant applications for uniforms and equipment. Conducted oversight of all emergency and permanent work assessments performed by 14 project officers in three different parishes to comply with the Stafford Act and Title 44 of the Code of Federal Regulations (CFR). Reviewed project worksheets to eliminate any potential eligibility issues for work appropriate damage descriptions, scopes of work and costs estimates. All projects were coordinated with the Parish/Applicant representatives and the State of Louisiana PACs.

SAMANTHA DANCHUK, PhD, PE

HAZARD MITIGATION SME | APTIM

Professional Qualifications

Dr. Samantha Danchuk is a recognized resiliency technical and policy expert. She brings seven years' experience as a resiliency officer and capital program administrator, and 10 years as a resiliency engineer. She has led the development of local climate action plans, sea level rise projections, critical infrastructure assessments and implemented national award-winning strategic resiliency policy. She has proven capability in establishing critical paths, comprehensively weighting environmental risks and resolving contentious contract and regulatory issues.

Relevant Experience

**Aptim Environmental and Infrastructure, LLC,
Coastal Resilience Manager, June 2021–Present**
**Resilience Engineer, Adaptation Plan for Sandsprit
Park Renovations, Martin County, FL**

July 2021–Present

Reviewed future storm and sea level rise projections to determine design elevations for initial reconstruction project. Developed a phased 30-year adaptation plan for the park to adapt to tidal flooding, increased erosion, and inundation. Drafted the deliverable to include necessary information required for state coastal resiliency grants and federal mitigation funding.

**Technical Reviewer, Initial Assessment to Address
Sea Level Rise and Recurrent Flooding, Longboat
Key, FL**

July 2021–Present

Verified assumptions and methods utilized in applying future conditions projections were consistent with federal guidance and scientific standards. Reviewed data collection methods and data products for accuracy and applicability in vulnerability assessment. Identified mitigation and adaptation strategies for flood protection, drainage improvements and storm damage including recommendations for policy and projects.

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**YEARS OF
PROFESSIONAL
EXPERIENCE**

EDUCATION

- ▶ PhD, Civil Engineering, Louisiana State University
- ▶ MS, Environmental Engineering, University of California, Berkeley
- ▶ BS, Environmental and Civil Engineering, Florida State University

PROFESSIONAL LICENSE/ TRAINING

- ▶ Professional Engineer, Civil, Florida, 73868
- ▶ Critical Infrastructure Protection, Texas A&M Engineering Infrastructure Disaster Management
- ▶ Facilitation, Natural Resources Leadership Institute
- ▶ LEED Green Associate

PROFESSIONAL SKILLS

- ▶ Served as County Asst. Chief Resiliency Officer, & Capital Program Administrator for Resiliency Projects
- ▶ Technical Advisor, Southeast Florida Climate Change Compact
- ▶ 15 National Association of Counties Awards for resiliency policies and initiatives

**Broward County, Environmental Protection and Growth Management Department,
Associate Chief Resilience Officer, July 2014–June 2021**

Capital Program Administrator, Resilience, Broward County, FL

July 2014–June 2021

As Capital Program Administrator for the Resilience Program at the Department, secured partnerships and funding to support stakeholder decision-making and project implementation that advanced community resilience and resource protection.

Project Management Highlights

July 2014–March 2021

- ▶ Resilience studies and designs for the Convention Center Expansion and Headquarters Hotel, Joint Governmental Center Campus, Fort Lauderdale/Hollywood International Airport Stormwater Master Plan and Port Everglades Master Plan.
- ▶ “Flood Risk Management Study for Tidally Influenced Coastal Areas,” US Army Corps of Engineers (USACE) Planning Assistance for States Program in partnership with Broward County, storm surge and sea level rise modeling to inform infrastructure elevations.
- ▶ Critical infrastructure and future flood resilience in South Florida, NOAA, Deltares and Broward, innovative method to assess and visualize direct and cascading impacts of flooding.
- ▶ Cascading effects of future flooding transportation disruption, NOAA, Deltares, Florida International University, ICF, assess economic impacts and risks of flooding.
- ▶ “Business Case for Resilience” study that examined the return on investment of climate-resilient infrastructure upgrades across the region, funding partners included business forums, four counties, and Florida Department of Environmental Protection.
- ▶ US Geological Survey modeling of saltwater intrusion and future conditions flood modeling.
- ▶ Collaborations with Florida Department of Transportation, Broward Metropolitan Planning Organization, and city/county transportation agencies to improve the project review, project planning and long-range transportation processes to incorporate resilience.
- ▶ Establishment of Resiliency Review Board for County surtax projects.
- ▶ Scope and procurement management for Broward’s first Countywide Risk Assessment and Resilience Plan to simulate, compare and visualize future flood protection strategies.
- ▶ Administration of Broward’s first \$1.5M of investment in electric vehicles and charging infrastructure as part of commitment the Under2 Coalition’s Zero Emissions Vehicle Challenge.
- ▶ Close-out of Partners in Preservation and Land Stewardship program, \$20M in bond funded land acquisitions and restoration, awarded the Florida Urban Forestry Council, Outstanding Project.
- ▶ Facilitated annual convening of elected officials from Broward’s 31 municipalities and the Seminole Tribe of Florida to discuss resilience challenges and coordinated action. Manager, Energy, Resilience and Sustainability Program, Broward County, FL.

JANE BROGAN

CDBG/FUNDING SME | APTIM

Professional Qualifications

Ms. Jane Brogan is grants funding expert with particular background in HUD CDBG and climate adaptation programs. She has 15 years' experience managing federal funded programs including design and implementation, regulatory interpretation, compliance, unmet needs assessments, policy development, and writing Action Plans.

Relevant Experience

Aptim Environmental & Infrastructure, LLC, Disaster Recovery Program Director, February 2022–Present

Provides strategic guidance to maximize grants obtained across multiple funding streams and to optimize the impact of these federal dollars. Serves as an SME in HUDCDBG-DR program.

Governor's Office of Storm Recovery (GOSR), Chief Policy and Research Officer, New York, New York

Oversaw the plan to help New York recover after disasters and address climate change funded with \$4.5B from HUD's CDBG-DR program: program areas included housing, small business, and infrastructure. Drove the creation of policies and programs that helped 12,000 homeowners and renters and delivered over 300 community-planned resiliency projects across the state.

Implemented a cross-departmental process to define close out procedures for over 300 projects, 14 programs, and three federal grants. Directed research and analyzed data to inform future design of climate adaptation programs and how programs can be more equitable. Coordinated and responded to auditors and established corrective action plans to address findings: negotiated a repayment down from \$58.7M to \$2.5M. Served as the organization's policy expert, spokesperson, and legislative advocate. Often requested to present at conferences on topics of disaster recovery, climate adaptation, and buyouts. Built partnerships with grantees, federal partners, and government agencies to improve program development. Aided the Puerto Rican government in drafting their \$94B Hurricane Maria federal aid request.

- ▶ Rebuild by Design Living Breakwaters: While on staff at NY GOSR, coordinated re-design and approval of a first-of-its-kind \$107M Living Breakwaters project off the South Shore of Staten Island.

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**YEARS OF
PROFESSIONAL
EXPERIENCE**

EDUCATION

- ▶ Master of Applied Sciences, Environmental Science, University of Sydney, Australia, 2003
- ▶ BA, Psychology, Colgate University, 2002

PROFESSIONAL SKILLS

- ▶ Recognized as an expert in CDBG-DR, disaster recovery, and climate adaptation programs
- ▶ Extensive experience building diverse partnerships, solving complex problems, and developing programs to meet an organization's mission and goals

- ▶ Worked with federal and state permitting regulators, environmental and construction management team, and community members to identify a design which addressed the need and was compliant with HUD CDBG-DR Rebuild By Design (RBD) funds. Coordinated an Action Plan amendment, and subsequent approval, for the redesign identifying how it met the RBD goals. Managed the process of getting an extension on the deadline for the use of the CDBG-DR funds.

NYC Office of Management and Budget, Unit Head—CDBG-DR Program & Policy, New York, New York

Interpreted regulations, policy, and guidance for New York City's \$4.2B HUD CDBG-DR grant. Advised staff and senior leadership on how to apply it to program design and implementation: program areas included housing, economic development, infrastructure, and coastal resiliency. Directed citizen participation efforts: responsible for preparing justifications for changes to programs and budgets, updating the website, and coordinating public hearings.

- ▶ Rockaway Boardwalk Improvements: Led coordination with City agencies (OMB, DPR, EDC, ORR) and federal stakeholders (HUD, FEMA) to achieve timely development and approval of the environmental review for the Rockaway Boardwalk Improvements Project. Managed the process of including the project in the Action Plan and obtained approval from HUD. When the project was in construction, advised on HUD CDBG-DR compliance, how the multiple funding sources can be utilized, and responded to questions that arose from HUD monitoring. The project met timeline goals.

Lower Manhattan Development Corporation, Planning Project Manager, New York, New York

Managed \$400M of federal funding from HUD's CDBG-DR program used for September 11, 2001, recovery projects including rebuilding the World Trade Center site, infrastructure, economic development, and affordable housing. Coordinated with 20 sub-recipients to achieve project completion within scope, objectives, and budget.

EMILY THOMPSON

CDBG/FUNDING SME | APTIM

Professional Qualifications

Ms. Emily Thompson has over 16 years of legal achievement while serving as in-house and outside counsel within the public and private sectors with subject matter expertise in disaster recovery and risk reduction, climate change response, and resilient development. She is known for strong interpersonal abilities, diplomacy amongst adversaries, resourcefulness, and flexible outside-the-box thinking as a means to “get to yes.” She is repeatedly entrusted with assignments beyond defined roles and resulting successes rewarded with increased opportunities and promotions.

Relevant Experience

Aptim Environmental and Infrastructure, LLC, Senior Regulatory Advisor, July 2022–Present

Emily is newly hired at APTIM.

Governor’s Office of Storm Recovery, New York, NY

Acting General Counsel & Chief External Affairs Officer; November 2018–2022

Deputy General Counsel & Chief External Affairs Officer; April 2018–November 2018

Deputy General Counsel; May 2015–April 2018

Senior Counsel, Housing, Buyouts & Acquisitions, Affordable Housing

May 2014–May 2015

Provided legal counsel and strategic advice to start-up government agency in the expenditure of \$4.4B in federal funding allocated to New York State following Hurricane Sandy. Advised agency on compliance with federal recovery and resiliency regulations in its development and implementation of projects involving housing recovery and development, affordable housing initiatives, property buyout and acquisition, strategic retreat and demolition, building and improving resilient infrastructure, and community planning and reconstruction. Helped to grow the agency to 200 staff members, including 50 legal professionals.

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**YEARS OF
PROFESSIONAL
EXPERIENCE**

EDUCATION

- ▶ JD, Brooklyn Law School, 2004
- ▶ BS, Psychology, University of Tulsa, 1997

PROFESSIONAL LICENSE/ CERTIFICATIONS/ TRAINING

- ▶ Land Use Leadership Alliance, Pace Law School, Certificate, 2016

PROFESSIONAL SKILLS

- ▶ Particular expertise in government relations, negotiations & conflict resolution, vendor & contract management, disaster recovery, regulatory compliance, procurement, project management, climate change response, environmental governance, relationship building, research, writing & analysis, resiliency & sustainability

Directly supervise program regulatory counsel, procurement and contract administration counsel and compliance managers, as well as the communications and intergovernmental affairs staff. Served as a member of the Executive team. In addition to providing general legal, regulatory and compliance counsel, key accomplishments include:

- ▶ Project Management, Climate Change Response, and Resiliency Planning
 - › Managing the implementation of first-of-its-kind \$107M Living Breakwaters project that involves installing live oyster populations within reef ridges constructed on breakwaters that will achieve water filtration, wave attenuation, and shoreline restoration off the coast of Staten Island. Oversight includes:
 - Coordinating with the NYS Executive Chamber, elected officials, federal and state permitting regulators, NYS Division of Budget, procurement, environmental and construction management teams;
 - Serving as agency and project spokesperson at public events, community meetings, and in print and television media; and
 - Managing budget and construction timeline in order to complete project prior to expiration of federal appropriation.
 - › Advising on feasibility and regulatory requirements for community-driven efforts to improve resiliency of New York State municipalities and counties. Representative projects include:
 - Installing solar panels and elevating mechanicals within public housing developments;
 - Elevating roads and bridges in high-flood zones;
 - Reinforcing bulkheads along vulnerable shorelines;
 - Restoring marsh islands to encourage natural buffer against wave action; and
 - Building emergency management response centers
- ▶ Real Estate & Housing
 - › Overseeing the lease negotiations of 10 intake centers securing maximum flexibility in termination clauses for the agency and reducing currently occupied spaces to two centers.
 - › Advising staff on the development and implementation of a housing recovery grant program designed to assist the owners of storm-damaged properties and involving more than 12,000 individual requests for assistance.
 - › Providing key legal guidance on the establishment of a property buyout and acquisition program designed to restrict land as open space in perpetuity resulting in the successful purchase of more than 400 properties.
 - › Leading the ongoing contract negotiation to transfer all purchased properties to local municipalities, non-profits, and interested private parties.
- ▶ Procurement & Contracting
 - › Overseeing the procurement and selection of qualified developers and a CDFI to build 12 affordable housing projects throughout New York.
 - › Creating and revising contract templates and regulatory agreements to ensure compliance with federal regulations including the implementation of 2 CFR 200.

- › Creating an audit and closeout process for vendor contracts for the purpose of completing the regulatory record-keeping requirements and obtaining a final release and waiver of lien.
- › Successfully defending the agency during four audits by the inspector general and seven monitoring on-sites by federal grant managers where the eligibility of programs and the agency's expenditures were evaluated.
- ▶ Operations
 - › Overseeing the restructuring of the departments including evaluating staff capacity and bandwidth; creating, combining, and eliminating roles; reassigning responsibilities; creating new sub-units with designated managers; implementing new SOPs; and designing systems to create efficiencies.
 - › Creating and maintain a staff retention and attrition plan including succession planning in the event of unplanned staff attrition.
 - › Advising on strategic plan for federal grant closeout audit and eventual wind-down of storm recovery office.
 - › Providing guidance on return-to-work policies and procedures during worldwide pandemic.
- ▶ External Affairs and Communications
 - › Leading intergovernmental and communications teams to ensure consistent messaging to federal and state elected officials and the press.
 - › Serving as agency spokesperson at academic symposia, press conferences, and in interviews with major news publications.
 - › Advocating to internal and external stakeholders for the development of a specific initiative to assist the owners of manufactured home units vulnerable to future extreme weather events and secured \$30M of New York State's allocation to address this community's needs.
 - › Developing strong partnerships with representatives of federal agencies (including HUD, FEMA, and SBA), New York state agencies (including HCR, DEC, and DHSES), and elected officials that were instrumental in advancing the agency projects and goals.

Senior Specialist, Public Assistance Consulting and Technical Specialist Support

October 2019–Present

Provides ongoing grant consultation, technical assistance, and BCA support to APTIM clients including for BECI, Hurricane Matthew (Mattamuskeet Association, NC), Hurricane Michael (Jackson County, FL), Hurricane Irma and Maria (Puerto Rico), and the Camp Fire wildfires (PID, Paradise, CA). Utilizes exceptional communication skills and extensive grant expertise to guide Applicants/Sub-recipients through the complex workings to ensure compliance and to reach consensus agreement with all stakeholders. Also authored major components of numerous proposals and created interactive modules (EXCEL for BCA) to assist in preliminary identification of BCR ratios for 404 HMGP projects. Current value of estimates and 406 mitigation proposals is more than \$100M.

**Senior Cost Analyst/Estimator, Stafford Act and National Flood Programs:
Technical Assistance Contract, Governor’s Office of Homeland Security and
Emergency Preparedness, Baton Rouge, LA**

August 2016–August 2019

Responded to high priority projects and issues in response to GOHSEP management. Projects include scope alignment, reasonable cost determinations, evaluation of applicant issues with recommended remedies, site assessments, and technical support. Supervised and guided the day-to-day activities of 12 to 22 on-site and off-site cost analysts and served as the QAQC reviewer of all GOHSEP Technical Team projects and reasonable cost submissions. During this period, APTIM’s team reconciled over \$300M in funding (reasonable cost validation) and increased project worksheet obligations by over \$40M through scope alignment and correction.

**Cost Estimator/Analyst, Katrina and Subsequent Disaster Declarations,
Governor’s Office of Homeland Security and Emergency Preparedness, Baton
Rouge, LA**

September 2015–August 2016

Prepared detailed estimates for six projects for scope alignment resulting in additional obligations totaling \$14.2M. Appeared before the CBCA to offer expert testimony and to defend repair cost estimates for one sub-recipient resulting in an award of \$370K in additional project worksheet obligations.

**Closeout Specialist, Public Assistance, for Disasters Prior to Hurricane Sandy,
State of New Jersey**

December 2014–September 2015

Closed out 38 large projects and 17 small projects during this period. Produced highly accurate detailed analyses supported by concise and authoritative programmatic narratives and spreadsheets.

**Senior Disaster Recovery Specialist, DR4086: Hurricane Sandy Public Assistance
Program. Witt-O’Brien’s, State of New Jersey**

December 2012–November 2014

Served as a Senior Disaster Consultant and Lead State Applicant’s Liaison (PAC) assisting 70 different applicants (municipalities, county agencies, schools, PNPs, and utility authorities).

**State PAC, Disaster Strategies and Ideas, DR4068: Tropical Storm Debbie, Public
Assistance Program, State of Florida Emergency Management**

December 2012–November 2014

Advised and assisted County PACs and FEMA in demonstrating the correct procedure for assessing and documenting roads, buildings, and infrastructure.

BEAU SUTHARD

ARCHITECTURAL/ENGINEERING SME | APTIM

Professional Qualifications

Mr. Beau Suthard serves as a Program Director for APTIM's Coastal, Ports, & Marine (CPM) service line. Specifically, Mr. Suthard serves as CPM's Florida Region Director as well as CPM's National Coastal Market Director, managing APTIM's commercial CPM business in Florida, as well as growing APTIM's Coastal Market Sector across all CPM regions. In addition to his Director responsibilities, Mr. Suthard is a Marine Geologist for APTIM's coastal and marine geophysical and geotechnical operations. He is responsible for the coordination, planning, execution, and processing/interpretation of APTIM's geophysical and geotechnical investigations in support of offshore sediment resources, geohazard, and geological mapping activities.

Relevant Experience

Aptim Environmental & Infrastructure, LLC, Project Manager, May 2005–Present

Project Manager, Texas General Land Office (GLO), Reconnaissance Offshore Geophysical Survey for Regions 2 and 3 (state waters) and the Central Coast Outer Continental Shelf (OCS)

2022–Ongoing

Project Manager and Lead Geologist for these two large-scale, full-suite geophysical (bathymetric, side-scan sonar, sub-bottom profile, and magnetometer) surveys in support of the GLO Sediment Management Plan Surveys for future shore protection activities. The Region 2 and 3 (state water project from south of Corpus Christi to Freeport) project will collect 3,335 nm of geophysical data across Regions 2 and 3 state waters with a 1-mile spaced grid of survey lines. The OCS portion of the project will collect an additional 1,095 nm of geophysical data across federal waters offshore the central Texas coast with one-mile by five-mile spaced survey lines.

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**YEARS OF
PROFESSIONAL
EXPERIENCE**

EDUCATION

- ▶ MS, Geological Oceanography, University of South Florida, 2005
- ▶ BS, Marine Science (Geology Track), Eckerd College, 1997

PROFESSIONAL LICENSE(S)

- ▶ Professional Geologist, Florida (License No. PG2615, 2010)
- ▶ Professional Geologist, Virginia (License No.2801001948, 2013)
- ▶ Professional Geologist, Delaware (License No. S4-0001296, 2012)
- ▶ Professional Geologist, Louisiana (License No. 746, 2015)
- ▶ Professional Geologist, Texas (License No. 12902, 2018)

PROFESSIONAL SKILLS

- ▶ 18 years of experience in the identification of hundreds of millions of yards of beach compatible sand resources

Program Director and Contract Manager, Bureau of Ocean Energy Management (BOEM) Indefinite Delivery/Indefinite Quantity (IDIQ) contract for Geophysical, Geological, and Environmental Data Collection and Analysis supporting Outer Continental Shelf (OCS) Marine Minerals Stewardship

2021–Ongoing

This IDIQ is in support of the BOEM Marine Minerals Program (MMP) for both sand/gravel/silt for use in shore protection projects as well as critical/hard minerals. The first task order under this contract is for geophysical and geological data acquisition and analysis in Onslow Bay offshore North Carolina and Long Bay offshore of North Carolina and South Carolina to identify and map potential sand resources for use in shore protection projects. This task order is ongoing, with geophysical services completed early 2022 and geotechnical vibracores services scheduled for late-summer 2022. The second task order is ongoing and is to develop a Feasibility Assessment, Field Techniques and Best Practices for Shallow-Water Geophysical Mapping by Autonomous Underwater Vehicle(s). APTIM is currently negotiating two additional task orders under this IDIQ, including Geophysical and Geological Data Acquisition and Analysis on the Atlantic Outer Continental Shelf of Florida and Critical and Hard Offshore Mineral Resource Evaluation Reference for Feasibility Assessment, Exploration, and Best Practices.

Project Manager, Texas General Land Office (GLO), Reconnaissance Offshore Geophysical Survey for Region 1 (state waters) and the Sabine and Heald Banks OCS

2020–2022

Project Manager and Lead Geologist for these two large-scale, full-suite geophysical (bathymetric, side-scan sonar, sub-bottom profile, and magnetometer) surveys in support of the GLO Sediment Management Plan Surveys for future shore protection activities. The Region 1 (state water project from Freeport to the Louisiana border) project collected 2,200 nm of geophysical data across Region 1 with 1-mile spaced grid of survey lines. The OCS portion of the project collected an additional 1,050 nm of geophysical data across Heald and Sabine Banks in federal waters offshore the Louisiana and Texas coastline with one-mile spaced survey lines with five-mile spaced tie lines.

Project Manager/Technical Manager, US Bureau of Ocean Energy Management (BOEM) Atlantic Sand Assessment Project (ASAP) for Coastal Restoration Sand Sources on the Atlantic OCS

2014–2018

Managed historical data compilation, stakeholder meetings, and the acquisition of geophysical and geological data along the east coast from Florida to Massachusetts to support identification, characterization, and delineation of OCS mineral resources for use by coastal communities in future coastal restoration efforts. The project consisted of collecting 7,089 km of new geophysical data (chirp sub-bottom, sidescan sonar, magnetometer, and bathymetric), 340 new vibracores, and 100 surface grab samples over the course of three years. APTIM was able to advance the reconnaissance-level understanding of potential sand resources on the Atlantic OCS, and to collect sufficient data to allow seven investigation areas to have the data needed to design and permit borrow areas for future use.

NICOLE SHARP, PE

ARCHITECTURAL/ENGINEERING SME | APTIM

Professional Qualifications

Ms. Nicole Sharp, PE, is the Program Manager for the Coastal Restoration & Modeling Team at APTIM. Ms. Sharp has a well-rounded background in coastal management through working in both the public and private sector. Prior to rejoining APTIM, she was the Natural Resources Administrator at Broward County, Florida and has extensive experience with planning and implementing truck haul beach renourishment projects, the Corps of Engineers project planning process, complex environmental permitting, NEPA, and the review of environmental assessments for projects in sensitive areas.

Relevant Experience

**Aptim Environmental and Infrastructure, LLC,
Coastal Restoration & Modeling Program Manager,
June 2020–Present**

**Coastal Engineer, Bayou Dularge Ridge, Marsh and
Hydrologic Restoration, Terrebonne Parish, LA**

2020

The primary goal of this project is to provide salinity control by means of a structure at Grand Pass to reduce the flow and cross-sectional area. Assisted with the preparation and review of the structural alternatives analysis, which include anchored and unanchored, steel sheet pile wingwalls with levee (embankment) tie-ins and integration with a submerged boat-passage weir as well as a broad-crested, all rock embankment/weir structure

**Project Manager, Panama City Beach, FL, Erosion
Control and Storm Damage Reduction Project**

2008–2014 and 2020–Present

Coastal Engineer responsible for the annual monitoring requirements (2008–2013) of the Panama City Beach Project. Also performed engineering calculations and analysis of historic and current data and prepared the Panama City Beach Engineering and Modeling Report. Currently assisting the County in the review of the post-storm assessment for Hurricane Sally and the permit modification for the inclusion of St. Andrews State Park into the permitted project area.

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**YEARS OF
PROFESSIONAL
EXPERIENCE**

EDUCATION

- ▶ MS, Coastal and Oceanographic Engineering, University of Florida
- ▶ BCE, Civil Engineering, University of Delaware

Professional License(s)

- ▶ Professional Engineer, Civil, Texas, License No. 141154
- ▶ Professional Engineer, Civil, Florida License No. 74708

PROFESSIONAL SKILLS

- ▶ 12 years of broad experience in project management, planning, design, permitting, engineering, plans and specifications, field investigations, construction oversight, and feasibility studies of coastal engineering projects

Project Manager, Collier County Coastal Storm Risk Management Study

2020–Present

Co-Project Manager responsible for the continued support to Collier County for the US Army Corps of Engineers feasibility study for Collier County. Assisted with extensive coordination and negotiations with Corps staff from multiple districts in addition to providing project support. This support has included review of Tentatively Selected Plan (TSP), engineering and modeling, economics and benefit analysis, environmental considerations, and real estate. Services also included review of final model optimization and report prepared for the Agency Decision Milestone meeting in December 2020.

Project Manager, Sector 3 Beach and Dune Renourishment Project, Indian River County, Florida

June 2020–Present

Served as both the Project Manager and Technical Manager for the ASAP project. Managed historical data. Senior Project Manager and Engineer of Record responsible for the Sector 3 Beach and Dune Renourishment Project to restore the beach from damage caused by Hurricanes Matthew, Irma, and Dorian. Efforts have included final permit coordination, development of construction plans and specifications for both dredge and truck haul, and bidding assistance for the County. Also assisted the County with their easement acquisition strategy in conjunction to assisting the County in their coordination with FEMA. To date, approximately 316,427 CY of fill has been placed, with the remaining project to be completed after sea turtle nesting season.

D.3 Experience of the APTIM Team

APTIM has 30+ years of experience performing Disaster Response and Recovery Services make us more than qualified to perform the Scope of Work/Services as described in the RFP. What distinguishes APTIM from our competitors is our wide range of expertise in all areas relating to Grant Management. We focus on minimizing risk and maximizing reimbursement.

EMPLOYEES BY DISCIPLINE

- ▶ **276** Engineers
- ▶ **152** Professional Engineers
- ▶ **91** Program Managers
- ▶ **233** Project Managers
- ▶ **30+** Disaster Recovery/Grand Funding Specialists
- ▶ **4,100+** Employees Worldwide

\$70B

IN MANAGED FUNDS
ALLOCATED TO
INFRASTRUCTURE

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The APTIM team has SMEs who have provided grant writing and management services including grant administration, project management, action plan reviews and amendments, eligibility, construction oversight, monitoring, compliance, and reporting. The experience of our staff has led to technical excellence, creativity, and flexibility to easily adapt to individual needs of all communities.

Customer Service Capabilities

Insurance Issues

During APTIM's tenure with GOHSEP, one of our principal tasks was to validate FEMA's estimated insurance reductions against the actual insurance proceeds received by Louisiana applicants. Our Insurance Specialists worked closely with not only the applicants, but also GOHSEP and FEMA to ensure insurance reconciliations were accurate, there were no duplication of benefits, and in compliance with federal regulations under 44 CFR 206.50.

In addition, the APTIM Team Insurance Specialists also worked closely with applicants and GOHSEP to submit requests for Insurance Commissioner Certifications. Following Hurricane Katrina, the Commissioner of the Louisiana Department of Insurance (Commissioner) provided FEMA a certification that: **1) commercial insurance for flood and wind perils** was not reasonably available to applicants; and **2) waived for applicants the insurance reduction requirements in 44 C.F.R. § 206.253 (b) (2), Insurance requirements for facilities damaged by disasters other than flood, known as a '5903 reduction.'**

As found in GOHSEP's PA Insurance Brochure, "The ICC was a **declaration** that **some portion** of the Obtain & Maintain (O&M) requirement was **not reasonably available** to the FEMA PA Subrecipient (Applicant). ICC's **certified** that Subrecipients (Applicants) for FEMA PA funding **met** their O&M insurance requirements using **reduced coverage** when **full-coverage** requirements were **not reasonably available**. If the required levels of insurance were not obtained and maintained on a *previously* damaged facility, that facility would receive **no FEMA PA funding** in a **future event** of the **same type unless** the Applicant had *both* **applied for and received an ICC.**"

Timeline of Customer Complaint Resolution

Our project teams, particularly the team for Jefferson Parish's sanitary landfill project, take great pride in exceeding the expectations of their clients and maintaining good relationship with them.

The part of the RFP required asking about timelines for customer complaint resolution required some research, and we found that we have not once received a complaint needing any sort of resolution from Jefferson Parish.

In fact, we found that none of our O&M project teams have experienced a complaint. Consequently, it is difficult to answer how efficiently we respond to complaints. What we can say is that our Project Manager would immediately communicate such a complaint to our Corporate Sponsor and the two would immediately formulate a plan for resolving the issue.

Closeouts

The APTIM Team has a proven record of providing program management and grant closeouts for both FEMA PA and HM programs. Additionally, our team has successfully assisted with DHS-OIG audit defense, resulting in substantially reduced or fully eliminated reductions originally requested by DHS-OIG. Our audit defense assistance has allowed organizations to keep the grant funds originally awarded to them. To demonstrate our proven ability, immediately following are specific, measurable, documented closeout and audit defense results.

FEMA Public Assistance Program Closeouts

Project: Hurricane Sandy Long-Term Recovery Program, New York, New York

Client: New York City Housing Authority (NYCHA)

APTIM Role: Program Manager

Program Size: \$3.2B

Project Summary. As a result of Hurricane Sandy in 2012, APTIM provided NYCHA with complete disaster recovery lifecycle grants management assistance, as well as guidance on formulation, eligibility, procurement, cost reasonableness, cash flow management, compliance, record keeping, audit requirements and closeout. APTIM developed solutions for NYCHA that increased their PA funding from \$300M to more than \$3B in federal grant funding through the Stafford Act's Section 428 PAAP for Permanent Work Pilot Program.

FEMA Hazard Mitigation Grant Program Closeouts

Project: Hazard Mitigation Grant Program Management, Multiple Parishes, Louisiana

APTIM Role: Program Manager

Program Size: \$53M

Project Summary. Because of substantial declared disasters in the State of Louisiana since 2005, multiple parishes received HMGP funding to address mitigation needs and opportunities. APTIM managed the full HMGP lifecycle, preparing grant applications, coordinating with stakeholders including local government officials, FEMA and GOHSEP. We used our collective experience and knowledge of other ongoing projects in Louisiana to formulate and closeout 10+ HMGP projects valued at over \$53M.

Final Audits for Completed FEMA Public Assistance Program Projects

Project: Bring New Orleans Back (BNOB) Program, New Orleans, Louisiana

Client: City of New Orleans, Louisiana

APTIM Role: Program Manager

Program Size: \$33M

Project Summary. Following Hurricane Katrina in 2005, the City of New Orleans requested APTIM's assistance with emergency protective measures and stabilization of City-owned buildings, as well as compiling information for submittal to the FEMA PA program for reimbursement. Upon completion of program management services, the City of New Orleans asked APTIM to provide DHS-OIG audit compliance and defense for the BNOB program's emergency protective measures PWs.

Our assistance ultimately ensured that the City was able to keep PA grant funds that were subject to de-obligation by DHS-OIG after a federal audit. Our team thoroughly researched all relevant federal and state regulations, policies and procedures, as well as results from prior audits, ensuring compliance with and successfully building a case against DHS-OIG audit de-obligation recommendations. APTIM fully demonstrated that the City was compliant with all federal and state grant requirements. FEMA supported our position, resulting in a savings to the City of \$33M, the value of the full scope of work.

Additional Audit and Closeout Experience

In addition to the projects described above, APTIM personnel have experience in grant closeouts and final audits. APTIM helped GOHSEP formulate a strategy for responding to all subgrantee DHS-OIG audits in Louisiana. APTIM staff participated in the coordination, analysis and response to hundreds of DHS-OIG audits with findings covering ineligible scope, obtain and maintain insurance requirements, duplication of benefits, program eligibility, and procurement, among others. Thanks in large part to APTIM's contributions, the average audit de-obligation rate was less than 2% of the initial finding for all subgrantee audits in Louisiana.

APTIM has also provided the comprehensive PA closeout checklist our team recently developed for the PANYNJ. The checklist follows federal regulations and programmatic guidance provided by FEMA, Office of the Inspector General, and the Office of Management and Budget.

Grant Management Expertise

Our staff has a strong working knowledge of applicable local, state, and federal regulations and can assist with any pre- or post-grant award requirements such as applications, citizen participation, outreach, needs assessments, environmental reviews, program design, planning, policy and procedures, and all aspects of program start-up, development and management, eligibility, monitoring, compliance, and closeout. APTIM's Grant Management expertise is the direct result of our highly engaged grant management specialists, who bring extensive federal funding experience including specific experience addressing the economic needs of our clients.

APTIM provides our clients with innovative solutions such as our multiple customizable, interactive database application options. These applications have proven valuable in economic recovery cost tracking and financial management.

Public Assistance

As stated previously, APTIM has played a significant role in the recovery of most major federally declared natural disasters since 1992.

There is no aspect of the FEMA Public Assistance program that APTIM has not been intimately involved on behalf of the state or local entities we have had the privilege of working with over 30 years.



APTIM INCREASES RECOVERY

Beauregard Electric Cooperative (BECI) hired APTIM to provide comprehensive support, guidance, project formulation, and documentation preparation for FEMA PA Projects in response to hurricane damages. APTIM's guidance has resulted in a four-fold level of recovery than originally forecasted by the client.

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Hazard Mitigation

APTIM's mitigation team brings in-depth knowledge and experience in implementing all phases of HMA Programs, and includes mitigation planners and Benefit Cost Analysts, NFIP experts, Certified Floodplain Managers, engineers, environmental specialists, case managers, and most importantly mitigation professional staff with immense experience at the local, state, and federal levels of government. APTIM has a proven record of successfully managing all aspects of mitigation including HMGP and FMA. Our extensive project experience and repeat contract awards are a testament to this successful record. APTIM's mitigation staff is trained in all HMA grant programs and with this experience, delivers compliance with all NFIP, FEMA, state, and local requirements. Additionally, we have the capability to assist the Parish in identifying other potential funding sources and identifying strategies for meeting the cost share requirements including leveraging other federal funding streams, such as a HUD CDBG-DR.

Project/Client	Worked Performed	Contract Value	Est. Grant Funding
APTIM Projects			
City of Bonita Springs, FL FEMA Public Assistance and Hazard Mitigation Grant Program Services	<ul style="list-style-type: none"> ✓ FEMA Public Assistance ✓ FEMA Hazard Mitigation ✓ Grant Management/Compliance 	\$186,200	\$8,200,000
Louisiana Governor's Office of Homeland Security & Emergency Preparedness (GOHSEP) Hazard Mitigation, IA, and National Flood Insurance Act Support	<ul style="list-style-type: none"> ✓ FEMA Public Assistance ✓ FEMA Hazard Mitigation ✓ Grant Management/Compliance ✓ Appeals/Dispute Resolution ✓ Insurance ✓ Project Close-out 	\$588,000 \$27,000,000	\$400,000,000
Paradise Irrigation District FEMA Public Assistance and Disaster Recovery Management Services	<ul style="list-style-type: none"> ✓ FEMA Public Assistance ✓ FEMA Hazard Mitigation ✓ Grant Management/Compliance ✓ Appeals/Dispute Resolution ✓ Insurance ✓ Other Funding Options (CDBG) ✓ Project Close-out 	\$875,000	\$122,000,000
Village of Estero, FL FEMA Public Assistance Grant Program APTIM	<ul style="list-style-type: none"> ✓ FEMA Public Assistance ✓ FEMA Hazard Mitigation ✓ Grant Management/Compliance 	\$30,000	TBD after Disaster
Beauregard Electric Cooperative (BECI) Emergency FEMA Public Assistance Services	<ul style="list-style-type: none"> ✓ FEMA Public Assistance ✓ FEMA Hazard Mitigation ✓ Grant Management/Compliance 	\$1,500,000	\$100,000,000
Bossier Parish, LA Disaster Recovery and Emergency Planning Services – Severe Storms and Flooding (FEMA DR-4263)	<ul style="list-style-type: none"> ✓ FEMA Public Assistance ✓ FEMA Hazard Mitigation ✓ Grant Management/Compliance ✓ Project Close-out 	\$1,400,000	\$38,300,000
Lake Madrone Water District Grants Appeal Support	<ul style="list-style-type: none"> ✓ FEMA Public Assistance ✓ FEMA Hazard Mitigation ✓ Grant Management/Compliance ✓ Appeals/Dispute Resolution ✓ Other Funding Options (CDBG) 	\$109,000	\$24,500,000

Project/Client	Worked Performed	Contract Value	Est. Grant Funding
New York City Housing Authority Program Management Services Related to Hurricane Sandy Long-Term Recovery	<ul style="list-style-type: none"> ✓ FEMA Hazard Mitigation ✓ Grant Management/Compliance ✓ Appeals/Dispute Resolution ✓ Insurance ✓ Other Funding Options (CDBG) ✓ Project Close-out 	\$738,663	\$3,260,000,000
Port Authority of New York and New Jersey (PANYNJ) Storm Mitigation, Resilience, Insurance Adjustment, and Grant Management Services for Federally Funded Projects	<ul style="list-style-type: none"> ✓ FEMA Public Assistance ✓ FEMA Hazard Mitigation ✓ Grant Management/Compliance ✓ Appeals/Dispute Resolution ✓ Insurance ✓ Other Funding Options (CDBG) ✓ Project Close-out 	\$4,200,000	\$2,000,000,000

Figure D-9. APTIM Team PA and HMGP Experience.

References

APTIM has provided three reference projects with equal or larger scope of work/services that are currently ongoing.

Project/Client	Reference
St. Mary Parish Hazard Mitigation Grant Program & Hazard Mitigation Plan Update	Henry 'Bo' Lagrange, Chief Administrative Officer St. Mary Parish Government Courthouse Building Franklin, LA 70538 337.828.4100 hlarange@stmaryparishla.gov
Bossier Parish, LA Disaster Recovery and Emergency Planning Services – Severe Storms and Flooding (FEMA DR-4263)	'Butch' Ford, Administrator Bossier Parish 204 Burt Blvd. Benton, LA 71006 318.965.2329 iford@bossierparishla.gov
Paradise Irrigation District FEMA Public Assistance and Disaster Recovery Management Services	Tom Lando, District Manager Paradise Irrigation District 6332 Clark Road Paradise, CA 95969 530.877.4971 tlando@paradiseirrigation.com

Project Reference Sheets

Hazard Mitigation Grant Program 1603 and 1607

ST. MARY PARISH, LOUISIANA

Project Overview

For the St. Mary Parish HMGP 1603 and 1607 projects, APTIM developed hazard mitigation grant applications for residential structures and critical facilities. The project sites were located throughout St. Mary Parish. Structures were properties identified by the NFIP SRL list. Residential structures were eligible for elevation, acquisition, relocation, and pilot reconstruction projects. Public critical facilities were eligible for retrofit. Additional drainage projects are currently under development.

We also worked on the development of an application for the PPG to assist in addressing the projects identified in the updated local multi-HMP. These projects also included the implementation of the grant, including but not limited to communication and meetings with client, site visits, and financial reconciliation and closeout of project.

Services Provided

We specialize in HMA grants, which include application development, program management, construction management, and grants management of infrastructure and residential mitigation phased and non-phased projects. HMA includes three programs: HMGP, FMA, and Pre-Disaster Mitigation (PDM). We currently manage HMGP and FMA grants. The mitigation actions in our current portfolio include residential acquisition, elevation and rehabilitation, and a variety of small scale and large-scale infrastructure and drainage projects. These projects require advanced knowledge of FEMA mitigation, individual local government structure, customer service to homeowners and citizens affected by disasters, and coordination with the state mitigation team. We oversee all aspects of the projects from application development to closeout and coordinates with all parties on the federal, state, local, and homeowner levels to ensure the mission, goals, and timelines of the projects are met as policies dictate. **The APTIM approach to providing these services includes:**

Planning

- ▶ Prepare timely grant applications, to include the preparation of project worksheets, BCA using FEMA-approved BCA software, and responses to requests for additional information (Upon determination that projects are eligible, and funds are available, project(s) will be implemented)

Client

St. Mary Parish

Firm

Aptim Environmental & Infrastructure, LLC

Firm Role

Prime

Total Recovery Size

\$122M

Period of Performance

2006–Ongoing

Funding Year

2005, 2008

Relevant Scope

- ▶ Program Management
- ▶ HMGP
- ▶ FEMA Public Assistance Program
- ▶ FEMA Hazard Mitigation Program
- ▶ Project Management
- ▶ Technical Assistance
- ▶ Grant Management
- ▶ Policy and Guidance

- ▶ Assist with funding priorities when selecting Severe Repetitive Loss and Repetitive Loss properties as to eliminate negative community feedback and promote state and federal buy-in
- ▶ Coordinate with GOSHEP and FEMA using past experiences and knowledge of other ongoing projects in Louisiana
- ▶ Assist with the public participation process through meetings to inform constituents, as well as the parish government and city governments, of the programs and mitigation options
 - ▶ Inform qualified property owners through mail-outs, fliers, etc. as approved by Parish Government personnel
 - ▶ Work with the public, as well as the parish government and city governments, to explain the HMA program and to keep participation on schedule

Project Management

- ▶ Prepare project management files, project scope, quarterly reports, progress reviews, reimbursement requests, and other required documents to satisfy local, state, and federal requirements
- ▶ Assist in resolving issues through coordination with stakeholders
- ▶ Provide project control assistance to develop schedules, financial analysis, customized reports, and ongoing financial status of each project
- ▶ Provide Engineering services to assist as necessary to ensure successful review of construction plans for code and program guidance compliance
- ▶ Monitor the construction process in accordance with project milestone requirements. Ensure compliance with federal, state, and local permitting regulations
- ▶ Provide technical assistance to homeowners to acquire required certificates from licensed professionals to meet National Flood Insurance Program and local compliance requirements
- ▶ Assist with any changes to grant funding allocations that arise out of required changes in construction cost
- ▶ Gather, organize, review, and submit closeout documents in accordance with the FEMA closeout forms, upon completion of the construction of each project and the completion of the grant management

Project Successes

APTIM has provided its industry leading mitigation services throughout the country. Across Louisiana, APTIM has implemented over \$15.5M in HMGP projects since 2006. Specifically, APTIM is currently administering \$1.7M in acquisition, \$6.2M in elevation, over \$2M in pilot reconstruction, and nearly \$6M in wind retrofit projects.

Disaster Recovery and Emergency Planning Services: Severe Storms and Flooding (FEMA DR-4263)

BOSSIER PARISH, LOUISIANA

Project Overview

In response to flooded/damaged infrastructure, APTIM provided Bossier Parish with technical, strategic recovery, policy guidance, and grants management assistance. The Parish's infrastructure sustained damages of over \$36M.

Our team worked directly under the direction of the Parish, as an extension of their recovery staff. The APTIM Team evaluated damages to roads, bridges, and water control facilities caused by flooding, then provided design, project and construction management services for all damaged roads, bridges and culverts identified on 22 FEMA project worksheets. APTIM brought a multi-disciplinary and integrated team with broad disaster recovery and grants management experience, and specialized experience in engineering, construction, compliance, accounting and finance.

The team assessed the Parish's procedures for reimbursement, drawdown of funding, and close out of federal funds and reconciliation of federal funding sources, both FEMA and non-FEMA.

Our team coordinated with multiple entities, including Louisiana Department of Transportation, GOHSEP, and FEMA. APTIM assigned functional experts that were familiar with both FEMA and GOHSEP grants processes.

We used our in-house software application for this project for all costs, deliverables, budgeting, project management, timekeeping, DAC reimbursement tracking, formulation, and damage assessments.

Project Description

Our team provided expertise in the following areas:

- ▶ Damage Assessments
- ▶ Policy Advice
- ▶ Design
- ▶ Project and Program Management
- ▶ Construction Management
- ▶ Grants Management
- ▶ Cost Estimating and Analysis
- ▶ Appeals and Arbitration
- ▶ DAC Recovery
- ▶ Procurement
- ▶ Closeout

Client

Bossier Parish, LA

Prime

Aptim Environmental & Infrastructure, LLC

Project Dates

June 2016–Present

Total Cost of Services

\$1,400,000

Relevance/Highlights

- ▶ FEMA Public Assistance Program
- ▶ FEMA Hazard Mitigation Program
- ▶ Project Management
- ▶ Engineering/Design
- ▶ Damage Assessments
- ▶ Construction Management
- ▶ Grant Management
- ▶ Closeout



Project Successes

Successful Arbitration—Following an unsuccessful first appeal to FEMA for paved road repairs (Category C PW), APTIM SMEs successfully convinced the CBCA Panel of judges to overturn FEMA's determination for a \$0 Project into a \$25M project.

As a follow-up to the successful arbitration decision, APTIM SMEs assisted the Parish with increasing the project from \$25M to \$32M.

FEMA Public Assistance and Disaster Recovery Management Services

PARADISE, CALIFORNIA

Project Overview

After the devastating 2018 Camp Fire in Northern California, over 9,000 structures in the Town of Paradise were burned. The wildfires moved through the town rapidly and burned so intensely that they caused extensive damage to the town's water system. APTIM is supporting PID with technical assistance in the development and submittal of their grant applications for funding under FEMA 404, 428, and Public Assistance.

Project Description

Our primary activities include assisting PID with the FEMA PA recovery process by negotiating with FEMA and Cal OES for maximum eligible benefits under the program to facilitate and expedite the recovery of the water system.

We are also assisting with the development of three HMGP/404 applications aimed at mitigating future fire damage. In addition to maximizing recovery and mitigation grant funds, we are working with PID's engineer partner and their field crews to ensure continued eligibility and funding.

Project Successes

We worked with PID to compile documentation for a donated resources PW that has more than eliminated local cost share on all emergency work projects. We are also assisting PID in the securing of additional funding from a state source that will offset the local cost share on their water systems PWs as well as fund the portions of full-system replacement that are not eligible for FEMA assistance. To date, this project is on schedule and on budget. A project extension to July 2022 is currently being drafted.

Client

Paradise Irrigation District (PID)

Prime

Aptim Environmental &
Infrastructure, LLC

Project Dates

July 2019–Present

Total Cost of Services

\$738,663

Relevance/Highlights

- ▶ FEMA Public Assistance Program
- ▶ FEMA Hazard Mitigation Program
- ▶ Project Management
- ▶ Grant Management
- ▶ Policy and Guidance



E – INNOVATIVE CONCEPTS

E. Innovative Concepts

A Disaster Paradigm Shift

The increase in number, type, speed, and severity of disasters has created a new disaster paradigm; unprecedented, and affecting us from coast to coast by fire, flooding, weather-related and other historic events that have left unprepared areas devastated. This shift has given rise to changes in the recovery process of FEMA, and sparked concerns as funding de-obligation risks continue to rise over the last 12 years. As an industry leader and innovative pioneer for disaster solutions, APTIM began our own paradigm shift that ultimately merged two business units, resulting in expanded capabilities and resources enabling us to provide survivors with a full-circle approach by integrating mitigation and resilience solutions into our response and recovery efforts. Holistically, we focus on the whole community addressing their systemic challenges instead of only repairing what is damaged.

What distinguishes us from our competitors is our wide range of expertise in all areas relating to Grant Management. We focus on minimizing risk and maximizing reimbursement, including funding sources in addition to FEMA, such as HUD, CDBG-DR, and others. APTIM's team consists of two former executives from New York's 2012 CDBG-DR grantee.

We are here to make the process of getting PA funding from FEMA smooth and easy. The APTIM Team has incomparable subject matter expertise, strong relevant experience in Louisiana, and vast recovery and mitigation experience. With this combination, APTIM can deliver in a way that no other firm can. Our applicant focused approach includes development of well-designed outreach efforts and communication plans that involve forming strong relationships, providing accurate applicant status details, "one-pager" information sheets, and briefings.

We are aware of the challenges that applicants face in the wake of a disaster. Louisiana is home; we live here; we work here; and we have been impacted. Let's face these challenges together. We prioritize the peace of mind we can provide our community while simultaneously working through the complexities of resource needs, constant demands, and regulatory changes. Trust us to manage the programs, sort through the chaos, and help achieve clarity, synergies, community consensus, and economies of scale.

Unrivaled Grant(s) Management Experience

Many of our team members have worked at all three levels of grant management—grantor, grantee, and subgrantee—that experience gives us beneficial insights that translate into competitive and successful grant applications, as well as compliant grant management efforts with minimal "clawback" of funds. Our grant specialists locate funding not well known or tapped into, an advantage we can provide to the Parish.

While on staff at NY GOSR, Ms. Brogan, APTIM's current Grant Specialist and former Grantee, worked with federal and state permitting regulators, environmental and construction management team, and community members to identify a design which addressed the need and was compliant with HUD CDBG-DR Rebuild By Design (RBD) funds. Ms. Brogan coordinated an Action Plan amendment, and subsequent approval, for the redesign identifying how it met the RBD goals. She also managed the process of getting an extension on the deadline for the use of the CDBG-DR funds.

Additionally, we provide our clients with innovative solutions such as our multiple customizable, interactive database application options. These applications have proven valuable in economic recovery cost tracking and financial management. APTIM offers adept and highly engaged grant management specialists who are uniquely qualified with extensive federal funding experience and specialized experience addressing the economic needs of our clients.

APTIM is the only vendor whose team includes former executive-level grantees who have developed numerous Action Plans and Action Plan Amendments, worked closely with HUD to obtain approvals, and managed a grant from beginning to end.

Innovation That Exceeds Expectations

We make a habit of exceeding the expectations of our clients. We thrive on the ability to do meaningful and fulfilling work; we always go the extra mile and as such, exceeding expectations happens naturally. We take immense pride in our mission to serve in the face of hardship, to stand by our communities who faced the challenges of preparing for potential loss of life, damage to property and the environment, and the threat of economic disruption.

During our tenure with GOHSEP, the APTIM Team applied their technical skills and passion for innovative technology to develop a cost share monitoring matrix to assist with monitoring current and potential funding obligations. We identified any factors that might be addressed to meet or exceed qualifying threshold for a cost share adjustment. In addition, the APTIM Team developed a joint version tracking module within LouisianaPA.com used by FEMA, GOHSEP and sub-recipients to allow for a collaborative platform with full visibility and transparency. Outside of the core function for this tool, we built an archive to support appeals, a platform to identify unmet requests allowing us to better allocate our time and resources and capture costs that could be versioned at closeout.

As a proven and trusted provider for GOHSEP, we were selected to provide services for a new program intended to house survivors displaced by Hurricane Ida. **The Non-Congregate Sheltering Program (NCS) was the first of its kind as it needed to conform to the social restrictions in place to stop and/or slow the spread of COVID-19.** We immediately responded as GOHSEP's Program Manager, mobilizing within 24 hours to develop, roll-out, and manage the entire process from registration to case work through deactivation. Registration occurred within five days and the call-center was activated for complete enrollment in nine days.

In just over a month, we developed, tested, implemented, and refined the program. The first Hurricane Ida survivor families received units within one week of the NCS program being announced. Nearly 3,000 survivors were sheltered in the first month. During peak need, travel trailer deployments regularly exceeded 130 per day. As of June 21, 2022, the program deployed 5,600 travel trailers; sheltered 15,500 survivors; registered 18,000 survivors; performed 19,000 site inspections; and managed 28,000 maintenance calls.

APTIM Paves the Way for Innovation

Developed a cost share monitoring matrix to assist with monitoring current and potential funding obligations; identified any factors that might be addressed to meet or exceed qualifying threshold for a cost share adjustment.

Developed a joint version tracking module within LouisianaPA.com used by FEMA, GOHSEP and sub-recipients to allow for a collaborative platform with full visibility and transparency.

Built an archive to support appeals, a platform to identify unmet requests allowing us to better allocate our time and resources and capture costs that could be versioned at closeout.

F – PROJECT SCHEDULE

F. Project Schedule

Figure F-1 summarizes the project schedule, based on a timeline of typical stages and supporting tasks. APTIM's proposed work schedule is shown in working days (not calendar days).

Stage	Activity	Days
1	Mobilization & Assessment	<i>Within 48-hours and the first 2 weeks after award</i>
	<ul style="list-style-type: none"> ▶ Request for Public Assistance (RPA) ▶ Emergency Work 	<ul style="list-style-type: none"> ▶ Preliminary Damage Assessment (PDA) ▶ Public Assistance Emergency Consultation
2	PW Formulation	<i>Within 60 days of all required and acquired documentation</i>
	<ul style="list-style-type: none"> ▶ Damage Inventory Development ▶ Damage Descriptions & Dimensions ▶ Scope of Work (SOW) Formulation 	<ul style="list-style-type: none"> ▶ Issue Resolution ▶ Hazard Mitigation (HMP) Proposals
3	PW Reimbursement & Monitoring	<i>Throughout the project</i>
	<ul style="list-style-type: none"> ▶ Reimbursement Requests ▶ PW Version Requests 	<ul style="list-style-type: none"> ▶ Cost Reasonableness Analysis ▶ Quarterly Reporting
4	PW Closeout	<i>90 days from submission of all reimbursements</i>
	<ul style="list-style-type: none"> ▶ Prepared Closeout Packages ▶ Final Inspection Reports 	<ul style="list-style-type: none"> ▶ Request Project Closeout

Figure F-1. Timeline of Typical Stages and Supporting Tasks.

G – FINANCIAL PROFILE

G. Demonstrate Financial Stability

We have included APTIM's financial statements for the last two years on the following pages.

Aptim Environmental & Infrastructure LLC
CONSOLIDATED FINANCIAL STATEMENTS
December 31, 2021 and 2020
With Independent Accountant's Review Report

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Index to Consolidated Financial Statements

Independent Accountant's Review Report

Consolidated Statements of Operations for the Years Ended December 31, 2021 and 2020

Consolidated Balance Sheets as of December 31, 2021 and 2020

Consolidated Statements of Cash Flows for the Years Ended December 31, 2021 and 2020

Consolidated Statements of Changes in Equity for the Years Ended December 31, 2021 and 2020

Notes to Consolidated Financial Statements

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INDEPENDENT ACCOUNTANTS' REVIEW REPORT

Aptim Environmental & Infrastructure LLC
Baton Rouge, Louisiana

We have reviewed the accompanying consolidated financial statements of Aptim Environmental & Infrastructure LLC, which comprise the consolidated balance sheets as of December 31, 2021 and 2020, the related consolidated statements of operations, changes in equity and cash flows for the years then ended and the related notes to the consolidated financial statements. A review includes primarily applying analytical procedures to management's financial data and making inquiries of management. A review is substantially less in scope than an audit, the objective of which is the expression of an opinion regarding the financial statements as a whole. Accordingly, we do not express such an opinion.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these consolidated financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of consolidated financial statements that are free from material misstatements whether due to fraud or error.

Accountants' Responsibility

Our responsibility is to conduct the review in accordance with Statements on Standards for Accounting and Review Services promulgated by the Accounting and Review Services Committee of the American Institute of Certified Public Accountants. Those standards require us to perform procedures to obtain limited assurance as a basis for reporting whether we are aware of any material modifications that should be made to the consolidated financial statements for them to be in accordance with accounting principles generally accepted in the United States of America. We believe that the results of our procedures provide a reasonable basis for our conclusion.

We are required to be independent of Aptim Environmental & Infrastructure LLC and to meet our other ethical responsibilities, in accordance with relevant ethical requirements related to our review.

Accountants' Conclusion

Based on our review, we are not aware of any material modifications that should be made to the accompanying consolidated financial statements in order for them to be in conformity with accounting principles generally accepted in the United States of America.

Pittsford Samuels, PLLC

June 30, 2022

Aptim Environmental & Infrastructure LLC
CONSOLIDATED STATEMENTS OF OPERATIONS
Unaudited
(in thousands)

	<u>Year Ended</u> <u>December 31,</u> <u>2021</u>	<u>Year Ended</u> <u>December 31,</u> <u>2020</u>
Revenue		
Third party	\$ 169,760	\$ 245,454
Related party	9,832	16,423
Total revenue	<u>179,592</u>	<u>261,877</u>
Cost of revenue	<u>145,178</u>	<u>219,576</u>
Gross profit	34,414	42,301
Selling and administrative expense	8,198	4,519
Other operating expense, net	<u>853</u>	<u>1,334</u>
Income from operations	25,363	36,448
Interest income	<u>19</u>	<u>-</u>
Net income	25,382	36,448
Less: Net loss attributable to non-controlling interests	<u>(8)</u>	<u>(570)</u>
Net income attributable to Aptim Environmental & Infrastructure, LLC	<u>\$ 25,390</u>	<u>\$ 37,018</u>

See Independent Accountant's Review Report and Notes to Consolidated Financial Statements.

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Aptim Environmental & Infrastructure LLC
CONSOLIDATED BALANCE SHEETS
Unaudited
(in thousands)

	<u>December 31,</u> <u>2021</u>	<u>December 31,</u> <u>2020</u>
Assets		
Cash and cash equivalents	\$ 2,453	\$ 528
Accounts receivable, net	48,176	100,330
Accounts receivable - related party	965	1,244
Contract assets	5,247	7,804
Assets held for sale (Note 5)	-	13,930
Other current assets	188	946
Total current assets	<u>57,029</u>	<u>124,782</u>
Property and equipment, net (Note 4)	821	1,113
Advances to affiliates	638,347	587,695
Other non-current assets	2,434	2,526
Total assets	<u>\$ 698,631</u>	<u>\$ 716,116</u>
Liabilities		
Accounts payable	\$ 22,406	\$ 56,475
Accrued liabilities	3,959	10,156
Contract liabilities	17,743	20,528
Accounts payable - related party	466	282
Total current liabilities	<u>44,574</u>	<u>87,441</u>
Total liabilities	<u>44,574</u>	<u>87,441</u>
Commitments & contingencies (Note 9)		
Equity		
Common stock	32,053	32,053
Additional paid-in capital	517,690	517,690
Retained earnings	104,358	78,968
Total shareholder's equity	<u>654,101</u>	<u>628,711</u>
Non-controlling interests	(44)	(36)
Total equity	<u>654,057</u>	<u>628,675</u>
Total liabilities and equity	<u>\$ 698,631</u>	<u>\$ 716,116</u>

See Independent Accountant's Review Report and Notes to Consolidated Financial Statements.

Aptim Environmental & Infrastructure LLC
CONSOLIDATED STATEMENTS OF CASH FLOWS
Unaudited
(in thousands)

	<u>Year Ended</u> <u>December 31,</u> <u>2021</u>	<u>Year Ended</u> <u>December 31,</u> <u>2020</u>
Cash flows from operating activities		
Net income	\$ 25,382	\$ 36,448
Adjustments to reconcile net income to net cash (used in) provided by operating activities:		
Depreciation	227	913
Other operating income, net	853	1,334
Non-cash change in affiliate advances	(50,652)	(127,722)
Changes in operating assets and liabilities:		
Decrease in receivables, net	52,433	85,808
Change in contracts in progress, net	(228)	(885)
Decrease in inventory	-	57
(Decrease) increase in accounts payable	(33,885)	9,731
Decrease (increase) in other current and non-current assets	850	(2,445)
Decrease in other accrued and non-current liabilities	(6,197)	(2,355)
Change in other, net	-	(505)
Net cash (used in) provided by operating activities	<u>(11,217)</u>	<u>379</u>
Cash flows from investing activities		
Capital expenditures	(58)	(78)
Proceeds from sale of assets held for sale	13,122	-
Proceeds from sale of property and equipment	78	30
Net cash provided by (used in) investing activities	<u>13,142</u>	<u>(48)</u>
Net increase in cash and cash equivalents	1,925	331
Cash and cash equivalents, beginning of period	<u>528</u>	<u>197</u>
Cash and cash equivalents, end of period	<u>\$ 2,453</u>	<u>\$ 528</u>

See Independent Accountant's Review Report and Notes to Consolidated Financial Statements.

Aptim Environmental & Infrastructure LLC
CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY
Unaudited
(in thousands)

	Common Stock	Additional Paid-in Capital	Retained Earnings	Non- Controlling Interests	Total
Balance at December 31, 2019	\$ 32,053	\$ 517,690	\$ 41,950	\$ 1,120	\$ 592,813
Net income (loss)	-	-	37,018	(570)	36,448
Other	-	-	-	(586)	(586)
Balance at December 31, 2020	\$ 32,053	\$ 517,690	\$ 78,968	\$ (36)	\$ 628,675
Net income (loss)	-	-	25,390	(8)	25,382
Other	-	-	-	-	-
Balance at December 31, 2021	\$ 32,053	\$ 517,690	\$ 104,358	\$ (44)	\$ 654,057

See Independent Accountant's Review Report and Notes to Consolidated Financial Statements.

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Aptim Environmental & Infrastructure LLC
Notes to Consolidated Financial Statements
(in thousands)

Note 1 — Organization and Basis of Presentation

Organization— Aptim Environmental & Infrastructure LLC (the “Company”) is a wholly owned subsidiary of Aptim Corp. (the “Parent”). References to “we”, “our”, “us”, and similar expressions refer to the Company.

Basis of Presentation — The Consolidated Financial Statements reflect the results of operations of the Company and the financial position and cash flows of the Company in conformity with accounting principles generally accepted in the United States of America (“U.S. GAAP”). The Consolidated Financial Statements may not be indicative of the future performance of the Company. To the extent an asset, liability, revenue or expense is directly associated with the Company, it is reflected in the Consolidated Financial Statements. All dollars are presented in thousands. All significant intercompany transactions and accounts have been eliminated.

The Consolidated Financial Statements include all operations of the Company. Any equity investments for which the Company exercises significant influence over but does not control the investee and is not the primary beneficiary of the investee’s activities are accounted for using the equity method. See the “Partnering Arrangements” section of Note 2 – Summary of Significant Accounting Policies for further discussion of our combination policy.

The Consolidated Financial Statements as of December 31, 2021 and 2020, and for the years then ended, included herein, include all known accruals and adjustments necessary for a fair presentation of the consolidated financial position of the Company and its results of operations and cash flows for these periods. Unless otherwise specified, all such adjustments are of a normal and recurring nature.

Note 2 — Summary of Significant Accounting Policies

Use of Estimates — The preparation of the Consolidated Financial Statements in conformity with accounting principles under U.S. GAAP requires us to make estimates and judgments that affect the reported amounts of assets, liabilities, revenue and expenses and the related disclosures of contingent assets and liabilities. We believe the most significant estimates and judgments are associated with revenue recognition for our contracts, including estimating costs and the recognition of incentive fees and unapproved change orders and claims, and fair value and recoverability assessments that must periodically be performed with respect to long-lived tangible assets. If the underlying estimates and assumptions upon which the Consolidated Financial Statements are based change in the future, actual amounts may differ from those included in the accompanying Consolidated Financial Statements.

Revenue Recognition— We follow the guidance of Accounting Standards Codification (“ASC”) 606, *Revenue from Contracts with Customers*. We derive revenue from service and non-service contracts with customers. For service contracts, revenues are recognized over time as control of these services is transferred to our customers, in an amount that reflects the consideration the Company expects to be entitled to in exchange for those services. Our service contracts are awarded on a competitively bid and negotiated basis and billings are generally based on contractual billing rates or multipliers on costs. Cost of revenue for our service contracts includes direct contract costs, such as materials and labor, and indirect costs that are attributable to contract activity.

For non-service contracts, revenue is recognized over time using the percentage of completion (“POC”) method, based on an input method considering the percentage of actual direct costs-to-date compared to total estimated direct costs to complete each contract. We believe this POC method is less subjective than relying on assessments of physical progress. Under the POC method, the use of estimated costs to complete each contract is a significant variable in the process of determining recognized revenue and is a significant factor in the accounting for contracts. Significant estimates that impact the cost to complete each contract are costs of engineering, materials, components, equipment, labor and subcontracts; labor productivity; schedule durations, including subcontractor or supplier progress; liquidated damages; contract disputes, including claims; achievement of contractual performance requirements; and contingency, among others. The cumulative impact of revisions in total cost estimates during the progress of work is reflected in the period in which these changes become known, including, to the extent required, the reversal of profit recognized in prior periods and the recognition of losses expected to be incurred on contracts in progress, as assessed at the contract level. Due to the various estimates inherent in our contract accounting, actual results could differ from those estimates.

Our POC contracts are awarded on a competitively bid and negotiated basis and the timing of revenue recognition may be impacted by the terms of such contracts. We use a range of contracting options, including cost-reimbursable, fixed-price and unit-price. Contract revenue for our POC contracts reflects the original contract price adjusted for unconstrained variable consideration. Cost of revenue for our POC contracts includes direct contract costs, such as materials and labor, and indirect costs that are attributable to contract activity. When project mobilization costs are an integrated part of the performance obligation being transferred to the client, these costs are capitalized and charged to Cost of revenue over the performance period.

Performance Obligations – The majority of our contracts consist of one performance obligation, including our engineering, procurement, and construction (“EPC”) services contracts, as we are providing a significant integration of services into a bundle that represents the combined output for which the customer has contracted.

Variable Consideration – The nature of our contracts gives rise to several types of variable consideration, including claims and unpriced changes orders; award and incentive fees; and liquidated damages and penalties. We estimate the amount of revenue to be recognized on variable consideration using the expected value (i.e. the sum of a probability-weighted amount) or the most likely amount method, whichever is expected to better predict the consideration to which the Company is entitled. Estimates of variable consideration are based upon historical experience, known trends and legal enforceability. We recognize revenue for variable consideration when it is probable that a significant reversal in the amount of cumulative revenue recognized will not occur. Our recorded incentive fees, unapproved change orders and claims reflect our best estimate of recovery amounts; however, the ultimate resolution and amounts received could differ from these estimates. See Note 3 – Contract Revenue for additional discussion.

Cash and Cash Equivalents – Cash and cash equivalents are considered to be highly liquid securities with original maturities of three months or less. Most cash receipts and cash disbursements are processed by the Parent and result in a related increase or decrease in the Advances to affiliates balance on the Consolidated Balance Sheets.

Property and Equipment – Property and equipment are recorded at cost and depreciated on a straight-line basis over their estimated useful lives, including plant and field equipment (2 to 10 years). Renewals and betterments that substantially extend the useful life of an asset are capitalized and depreciated. Leasehold improvements are depreciated over the lesser of the useful life of the asset or the applicable lease term. Depreciation expense is primarily included within Cost of revenue and was \$227 and \$913 during the years ended December 31, 2021 and 2020, respectively. See Note 4 – Property and Equipment for disclosure of the components of property and equipment.

Fair Value Measurements – Financial instruments are required to be categorized within a valuation hierarchy based upon the lowest level of input that is significant to the fair value measurement. The three levels of the valuation hierarchy are as follows:

- *Level 1* — Fair value is based upon quoted prices in active markets.
- *Level 2* — Fair value is based upon internally-developed models that use, as their basis, readily observable market parameters. At December 31, 2020, we had one held for sale asset group classified as level 2. See Note 5 – Assets Held for Sale for further disclosure of this held for sale asset group.
- *Level 3* — Fair value is based upon internally-developed models that use, as their basis, significant unobservable market parameters. We did not have any material level 3 classifications at December 31, 2021 or 2020.

The carrying values of our cash and cash equivalents (primarily consisting of bank deposits), accounts receivable and accounts payable approximate their fair values because of the short-term nature of these instruments (Level 1 Measurements).

Partnering Arrangements – In the ordinary course of business, we execute specific projects and conduct certain operations through joint venture, consortium and other collaborative arrangements (collectively referred to as “venture(s)”). We have various ownership interests in these ventures, with such ownership typically proportionate to our decision making and distribution rights. The ventures generally contract directly with the third-party customer; however, services may be performed directly by the ventures, or may be performed by us, our partners, or a combination thereof.

Venture net assets consist primarily of working capital and property and equipment, and certain assets are restricted from being used to fund obligations outside of the venture. These ventures typically have limited third party debt or have debt that is non-recourse in nature; however, they may provide for capital calls to fund operations or require participants in the venture to provide additional financial support, including advance payment or retention letters of credit.

Each venture is assessed at inception and on an ongoing basis as to whether it qualifies as a variable interest entity (“VIE”) under the consolidation guidance in ASC 810, *Consolidation*. A venture generally qualifies as a VIE when it (1) meets the definition of a legal entity, (2) absorbs the operational risk of the projects being executed, creating a variable interest, and (3) lacks sufficient capital investment from the partners, potentially resulting in the venture requiring additional subordinated financial support, if necessary, to finance its future activities.

If at any time a venture qualifies as a VIE, we perform a qualitative assessment to determine whether we are the primary beneficiary of the VIE and, therefore, need to consolidate the VIE. We are the primary beneficiary if we have (1) the power to direct the economically significant activities of the VIE and (2) the right to receive benefits from, and obligation to absorb losses of, the VIE. If the venture is a VIE and we are the primary beneficiary, or we otherwise have the ability to control the venture, we consolidate the venture. If we are not determined to be the primary beneficiary of the VIE, or only have the ability to significantly influence, rather than control the venture, we do not consolidate the venture. We account for unconsolidated ventures using the equity method. See Note 6 – Partnering Arrangements for additional disclosure.

Income Taxes – The Company is a disregarded entity for federal income, foreign income and state income tax purposes. Therefore, the taxable income of the entity is combined with the Parent and reported in the consolidated U.S. federal income tax return, foreign income tax returns and state income tax returns. As such, the income tax provision, assets and liabilities are accounted for on the Parent. Accordingly, the accompanying Consolidated Financial Statements exclude an allocation of federal, foreign and state income taxes.

Other Operating Expense, Net – Other operating expense, net, generally represents impairments on assets held for sale and losses associated with the sale or disposition of property and equipment.

Going Concern – Management evaluates for each annual reporting period whether there are conditions or events, considered in the aggregate, that raise substantial doubt about the Company’s ability to continue as a going concern within one year after the date the financial statements are issued. The Company believes it has sufficient capital on hand to satisfy working capital requirements for the next twelve months.

Recent Accounting Pronouncements – In February 2016, the FASB issued ASU 2016-02, *Leases*, which requires the recognition of a right-of-use asset and a lease liability for most lease arrangements with a term greater than one year and increases qualitative and quantitative disclosures regarding leasing transactions. The standard is effective for us January 1, 2022. The new guidance will be applied at the beginning of the period of adoption with the transition option, utilizing a modified retrospective method in the form of a cumulative adjustment to Retained earnings in the period of adoption. We are assessing the adoption’s impact on the Consolidated Financial Statements. We expect our lease disclosures to significantly expand due to the new qualitative and quantitative reporting requirements.

In June 2016, the FASB issued ASU 2016-13, *Financial Instruments – Credit Losses (Topic 326) Measurement of Credit Losses on Financial Instruments*, which replaces the incurred loss impairment methodology in current U.S. GAAP with a methodology that reflects expected credit losses and requires consideration of a broader range of reasonable and supportable information to inform credit loss estimates. The standard is effective for us January 1, 2023, although early adoption is permitted. Transition requires application of the new guidance through a cumulative-effect adjustment to Retained earnings as of the beginning of the first reporting period in which the guidance is effective, utilizing a modified retrospective approach. We are assessing the timing and method of adoption of the new standard and its potential impact on the Consolidated Financial Statements.

Note 3 – Contract Revenue

Contract Assets and Liabilities – The timing of when we bill our customers is generally dependent upon billing terms, milestone billings based on the completion of certain phases of the work, or when services are provided. Revenues recognized to date in excess of cumulative billings on projects for which we have an unconditional right to the consideration is reported on the Consolidated Balance Sheets as Accounts receivable, net. These unbilled receivables were approximately \$15,340 and \$9,781 at December 31, 2021 and 2020, respectively.

Revenues recognized to date in excess of cumulative billings on projects for which we do not have an unconditional right to the consideration is reported on the Consolidated Balance Sheets as Contract assets. Projects with cumulative billings in excess of revenues recognized to date is reported on the Consolidate Balance Sheets as Contract liabilities. The net balances on our Consolidated Balance Sheets are collectively referred to as Contracts in progress, net and the components of these balances at December 31, 2021 and 2020 were as follows:

	<u>December 31, 2021</u>	<u>December 31, 2020</u>
Revenues recognized on contracts in progress	\$ 419,207	\$ 404,637
Billings to date on contracts in progress	<u>(431,703)</u>	<u>(417,361)</u>
Contracts in progress, net	<u>\$ (12,496)</u>	<u>\$ (12,724)</u>

The above amounts are included within the following captions in our Consolidated Balance Sheets at December 31, 2021 and 2020:

	<u>December 31, 2021</u>	<u>December 31, 2020</u>
Contract assets	\$ 5,247	\$ 7,804
Contract liabilities	<u>(17,743)</u>	<u>(20,528)</u>
Contracts in progress, net	<u>\$ (12,496)</u>	<u>\$ (12,724)</u>

Substantially all contract assets as of December 31, 2021 and 2020 are expected to be billed and collected within twelve months.

Any uncollected billed amounts for our contracts, including contract retentions, are reported as Accounts receivable, net. At December 31, 2021 and 2020, Accounts receivable, net included contract retentions of approximately \$1,773 and \$3,083, respectively. Retention agreements vary from project to project and could be outstanding for several months or years. Contract retentions due beyond one year were approximately \$0 and \$334 at December 31, 2021 and 2020, respectively.

Our billed and unbilled revenue may be exposed to potential credit risk if our customers should encounter financial difficulties, and we maintain reserves for specifically-identified potential uncollectible receivables. At December 31, 2021 and 2020, our allowances for doubtful accounts were approximately \$6,167 and \$3,019, respectively.

During the year ended December 31, 2020, the Company sold certain accounts receivable of a single obligor pursuant to a receivables purchase agreement. On the closing date of the sale, the Company sold accounts receivable with an aggregate principal balance of \$152,753. The purchase price for the accounts receivable is subject to adjustment from time to time based on various factors, including but not limited to, (i) the date on which payments on the accounts receivable are actually received from the obligor, (ii) whether the accounts receivable are approved by a specified program management consultant and (iii) whether the Federal Emergency Management Agency or the U.S. Department of Housing and Urban Development obligates funds for the making of payments in respect of such accounts receivable; and additional proceeds under the receivables purchase agreement are expected to be forthcoming.

Customer Concentrations – The table below depicts the percentage of our total revenue derived from our major customers.

	<u>Year Ended</u> <u>December 31,</u> <u>2021</u>	<u>Year Ended</u> <u>December 31,</u> <u>2020</u>
Customer A	5%	31%
Customer B	4%	10%

Customers A and B together accounted for 10% and 45% of Accounts receivable, net at December 31, 2021 and 2020, respectively.

Variable Consideration and Significant Changes in Contract Estimates – At December 31, 2021 and 2020, we had unapproved change orders and claims included in project price totaling approximately \$0 and \$1,200, respectively, and had incentives included in project price totaling approximately \$600 and \$300, respectively. The unapproved change orders at December 31, 2021 are primarily related to changes in scope and delays driven by client actions. Of the aforementioned unapproved change orders, claims and incentives, approximately \$600 has been recognized as revenue on a cumulative POC basis through December 31, 2021. The aforementioned amounts recorded in project price reflect our best estimate of recovery amounts; however, the ultimate resolution and amounts received could differ from these estimates and could have a material adverse effect on our combined results of operations, financial position and cash flow.

Note 4 — Property and Equipment

The components of property and equipment at December 31, 2021 and 2020 are as follows:

	<u>December 31,</u> <u>2021</u>	<u>December 31,</u> <u>2020</u>
Property and Equipment		
Plant, field and other equipment	\$ 3,695	\$ 3,866
Leasehold improvements	557	557
Total property and equipment	4,252	4,423
Accumulated depreciation	(3,431)	(3,310)
Property and equipment, net	<u>\$ 821</u>	<u>\$ 1,113</u>

There were no material impairments of property and equipment during the years ended December 31, 2021 and 2020.

Note 5 — Assets Held for Sale

As of December 31, 2021, there were no asset groups that met the criteria for classification as held for sale. As of December 31, 2020, one asset group met the criteria for classification as held for sale and is reported on the Consolidated Balance Sheets as Assets held for sale. This was a plant (Level 2 measurement as of December 31, 2020) for which the company received a purchased offer during the year ended December 31, 2020 and finalized the sale during the year ended December 31, 2021. The Company recognized asset impairments during the years ended December 31, 2021 and 2020 of \$808 and \$1,354, respectively, triggered by the purchase offer and final sale of this asset group. These asset impairments are reported in Other operating expense, net in the accompanying financial statements.

The components of Assets held for sale by major class at December 31, 2021 and 2020 are as follows:

	<u>December 31,</u> <u>2021</u>	<u>December 31,</u> <u>2020</u>
Assets Held for Sale		
Plant, field equipment and other	\$ -	\$ 11,536
Other non-current assets	-	2,394
Assets held for sale	<u>\$ -</u>	<u>\$ 13,930</u>

Note 6 — Partnering Arrangements

As discussed in Note 2 – Summary of Significant Accounting Policies, we consolidate any venture that is determined to be a VIE for which we are the primary beneficiary, or which we otherwise effectively control. Further, we account for our unconsolidated ventures using the equity method.

Consolidated Ventures – The assets of each consolidated venture can only be used to settle the obligations of that consolidated venture. The following table presents the amounts included in the respective line item captions in the Consolidated Balance Sheets at December 31, 2021 and 2020 for all consolidated ventures:

	<u>December 31,</u> <u>2021</u>	<u>December 31,</u> <u>2020</u>
Cash and cash equivalents	\$ 7	\$ 12
Accounts payable	-	22

Equity Method Ventures – We have no material unconsolidated ventures. As of December 31, 2021 and 2020, the equity investment balance is negative. As such, this balance is included in Other non-current liabilities. The Company's earnings from unconsolidated ventures is reported as Equity earnings, net in the accompanying financial statements.

Other – The use of these ventures exposes us to a number of risks, including the risk that our partners may be unable or unwilling to provide their share of capital investment to fund the operations of the venture or complete their obligations to us, the venture, or ultimately, our customer. Differences in opinions or views among venture partners could also result in delayed decision-making or failure to agree on material issues, which could adversely affect the business and operations of the venture. In addition, agreement terms may subject us to joint and several liability for our venture partners, and the failure of our venture partners to perform their obligations could impose additional performance and financial obligations on us. The aforementioned factors could result in unanticipated costs to complete the projects, liquidated damages or contract disputes, including claims against our partners.

Note 7 — Related Party Transactions

The Parent provided certain indirect support and oversight services for the Company during the years ended December 31, 2021 and 2020, such as legal, accounting, information technology, human resources, risk management, treasury, tax, and other infrastructure support. The cost of these indirect services are not allocated to the Company. Transactions processed by the Parent for the Company, primarily receipt and disbursement of cash to clear accounts receivable and payable, as discussed in Note 2 – Summary of Significant Accounting Policies, result in an increase or decrease in Advances to affiliates on the Consolidated Balance Sheets.

During the years ended December 31, 2021 and 2020, the Company performed seconded labor contracts (to and from) with other subsidiaries of the Parent (the "Related Parties"). Revenue associated with the secondment of labor to these Related Parties and the cost associated with secondment of labor from these Related Parties are included in Related party revenue and Cost of revenue, respectively, in the Consolidated Statements of Operations. Accounts receivable from these Related Parties and accounts payable to these Related Parties are included in Accounts receivable - related party and Accounts payable - related party, respectively, on the Consolidated Balance Sheets.

Note 8 — Employee Benefit Plans

Defined Contribution Plans – Eligible employees of the Company can participate in defined contribution plans sponsored by the Parent. The Parent makes contributions to these defined contribution plans for our employees. The Parent does not allocate these contribution cost to the Company.

Health Insurance Plans – Our eligible employees may participate in health and life insurance plans sponsored by the Parent. The Parent does not allocate these health insurance cost to the Company. The Parent bore the actual health and life insurance costs for the Company.

Note 9 — Commitments and Contingencies

Leases – Certain facilities and equipment are rented under operating leases that expire at various dates through 2026. Rent expense for these operating leases was \$242 and \$228 for the years ended December 31, 2021 and 2020, respectively. Future minimum lease payments under non-cancelable operating leases having initial terms of one year or more are as follows:

Year	Amount
2022	103
2023	86
2024	72
2025	74
2026	12
Thereafter	-
Total	<u>\$ 347</u>

Litigation – We have been and may from time to time be named as a defendant in legal actions claiming damages in connection with the services we provide. These are typically claims that arise in the normal course of business, including employment-related claims and contractual disputes or claims for personal injury or property damage which occur in connection with services performed relating to project or construction sites. Contractual disputes normally involve claims relating to the timely completion of projects, or engineering, maintenance, construction and other services provided by us.

Environmental Matters – Our operations are subject to extensive and changing U.S. federal, state and local laws and regulations, as well as the laws of other countries that establish health and environmental quality standards. These standards, among others, relate to air and water pollutants and the management and disposal of hazardous substances and wastes. We are exposed to potential liability for personal injury or property damage caused by any release, spill, exposure or other accident involving such pollutants, substances or wastes. In addition, in connection with the historical operation of our facilities, substances which currently are or might be considered hazardous were used or disposed of at some sites that will or may require us to make expenditures for remediation.

We believe we are in compliance, in all material respects, with environmental laws and regulations and the Company maintains insurance coverage to mitigate our exposure to environmental liabilities. We do not believe any environmental matters will have a material adverse effect on our future results of operations, financial position or cash flow.

Letters of Credit/Surety Bonds – In the ordinary course of business, we may obtain letters of credit and surety bonds, which we provide to our customers to secure advance payment or our performance under our contracts, or in lieu of retention being withheld on our contracts. In the event of our non-performance under a contract and an advance being made by a bank pursuant to a draw on a letter of credit, the advance would become a borrowing under a credit facility and thus our direct obligation. Where a surety incurs such a loss, an indemnity agreement between the parties and us may require payment from our excess cash or a borrowing under our credit facilities. When a contract is completed, the contingent obligation terminates and the bonds or letters of credit are returned. At December 31, 2021 and 2020, we had outstanding surety bonds of \$51,414 and \$51,710, respectively.

Insurance – We maintain insurance coverage for various aspects of our business and operations. We also retain a portion of future losses, if any, through the use of deductibles and self-insured retentions for our exposures related to third party liability and workers’ compensation. Liabilities in excess of these amounts are the responsibilities of an insurance carrier. We regularly review estimates of reported and unreported claims through analysis of historical and projected trends, in conjunction with actuaries and other consultants, and provide for losses through insurance reserves. As claims develop and additional information becomes available, adjustments to loss reserves may be required. If actual results are not consistent with our assumptions, we may be exposed to gains or losses that could be material.

Note 10 — Subsequent Events

In connection with the preparation of the Consolidated Financial Statements, the Company evaluated subsequent events after the balance sheet date of December 31, 2021 through June 30, 2022, the issuance date of the Consolidated Financial Statements.

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Aptim Environmental & Infrastructure LLC
CONSOLIDATED FINANCIAL STATEMENTS
December 31, 2020 and 2019
With Independent Accountant's Review Report

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Consolidated Balance Sheets as of December 31, 2020 and 2019

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Consolidated Statements of Changes in Equity for the Years Ended December 31, 2020 and 2019

Notes to Consolidated Financial Statements

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INDEPENDENT ACCOUNTANTS' REVIEW REPORT

Aptim Environmental & Infrastructure LLC
Baton Rouge, Louisiana

We have reviewed the accompanying consolidated financial statements of Aptim Environmental & Infrastructure LLC, which comprise the consolidated balance sheets as of December 31, 2020 and 2019, the related consolidated statements of operations, changes in equity and cash flows for the years then ended and the related notes to the consolidated financial statements. A review includes primarily applying analytical procedures to management's financial data and making inquiries of management. A review is substantially less in scope than an audit, the objective of which is the expression of an opinion regarding the financial statements as a whole. Accordingly, we do not express such an opinion.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these consolidated financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of consolidated financial statements that are free from material misstatements whether due to fraud or error.

Accountants' Responsibility

Our responsibility is to conduct the review in accordance with Statements on Standards for Accounting and Review Services promulgated by the Accounting and Review Services Committee of the American Institute of Certified Public Accountants. Those standards require us to perform procedures to obtain limited assurance as a basis for reporting whether we are aware of any material modifications that should be made to the consolidated financial statements for them to be in accordance with accounting principles generally accepted in the United States of America. We believe that the results of our procedures provide a reasonable basis for our conclusion.

Accountants' Conclusion

Based on our review, we are not aware of any material modifications that should be made to the accompanying consolidated financial statements in order for them to be in conformity with accounting principles generally accepted in the United States of America.

Pittsford Samuels, PLLC

October 7, 2021

Aptim Environmental & Infrastructure LLC
CONSOLIDATED STATEMENTS OF OPERATIONS
Unaudited
(in thousands)

	<u>Year Ended</u> <u>December 31,</u> <u>2020</u>	<u>Year Ended</u> <u>December 31,</u> <u>2019</u>
Revenue		
Third party	\$ 245,454	\$ 316,365
Related party	16,423	14,947
Total revenue	<u>261,877</u>	<u>331,312</u>
Cost of revenue	<u>219,576</u>	<u>287,500</u>
Gross profit	42,301	43,812
Selling and administrative expense	4,519	25,559
Other operating expense (income), net	1,334	(104)
Income from operations	<u>36,448</u>	<u>18,357</u>
Interest expense	-	(12)
Net income	<u>36,448</u>	<u>18,345</u>
Less: Net loss attributable to non-controlling	<u>(570)</u>	<u>(992)</u>
Net income attributable to Aptim Environmental & Infrastructure, LLC	<u>37,018</u>	<u>19,337</u>

See Independent Accountant's Review Report and Notes to Consolidated Financial Statements.

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Aptim Environmental & Infrastructure LLC
CONSOLIDATED BALANCE SHEETS
Unaudited
(in thousands)

	<u>December 31,</u> <u>2020</u>	<u>December 31,</u> <u>2019</u>
Assets		
Cash and cash equivalents	\$ 528	\$ 197
Accounts receivable, net	100,330	184,757
Accounts receivable - related party	1,244	2,625
Inventory, net	-	57
Contract assets	7,804	8,850
Assets held for sale (Note 5)	13,930	-
Other current assets	946	1,028
Total current assets	<u>124,782</u>	<u>197,514</u>
Property and equipment, net (Note 4)	1,113	752
Advances to affiliates	587,695	473,917
Other non-current assets	2,526	2,626
Total assets	<u>\$ 716,116</u>	<u>\$ 674,809</u>
Liabilities		
Accounts payable	\$ 56,475	\$ 44,825
Accrued liabilities	10,156	12,454
Contract liabilities	20,528	22,459
Payables to affiliates	282	2,201
Total current liabilities	<u>87,441</u>	<u>81,939</u>
Other non-current liabilities	-	57
Total liabilities	<u>87,441</u>	<u>81,996</u>
Commitments & contingencies (Note 9)		
Equity		
Common stock	32,053	32,053
Additional paid-in capital	517,690	517,690
Retained earnings	78,968	41,950
Total shareholder's equity	<u>628,711</u>	<u>591,693</u>
Non-controlling interests	(36)	1,120
Total equity	<u>628,675</u>	<u>592,813</u>
Total liabilities and equity	<u>\$ 716,116</u>	<u>\$ 674,809</u>

See Independent Accountant's Review Report and Notes to Consolidated Financial Statements.

Aptim Environmental & Infrastructure LLC
CONSOLIDATED STATEMENTS OF CASH FLOWS
Unaudited
(in thousands)

	Year Ended December 31, 2020	Year Ended December 31, 2019
Cash flows from operating activities		
Net income	\$ 36,448	\$ 18,345
Adjustments to reconcile net income to net cash provided by (used in) operating activities:		
Depreciation	913	221
Other operating income, net	1,334	(104)
Non-cash change in affiliate advances	(127,722)	1,790
Changes in operating assets and liabilities:		
Decrease (increase) in receivables, net	85,808	(80,815)
Change in contracts in progress, net	(885)	56,887
Decrease in inventory	57	231
Increase (decrease) in accounts payable	9,731	(5,741)
(Increase) decrease in other current and non-current assets	(2,445)	456
(Decrease) increase in other accrued and non-current liabilities	(2,355)	7,610
Change in other, net	(505)	(33)
Net cash provided by (used in) operating activities	379	(1,153)
Cash flows from investing activities		
Capital expenditures	(78)	(81)
Proceeds from sale of property and equipment	30	107
Net cash (used in) provided by investing activities	(48)	26
Net increase (decrease) in cash and cash equivalents	331	(1,127)
Cash and cash equivalents, beginning of period	197	1,324
Cash and cash equivalents, end of period	\$ 528	\$ 197

See Independent Accountant's Review Report and Notes to Consolidated Financial Statements.

Aptim Environmental & Infrastructure LLC
CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY
Unaudited
(in thousands)

	Common Stock	Additional Paid-in Capital	Retained Earnings (Deficit)	Non- Controlling Interests	Total
Balance at December 31, 2018	\$ 32,053	\$ 517,690	\$ 22,613	\$ 2,145	\$ 574,501
Net income	-	-	19,337	(992)	18,345
Other	-	-	-	(33)	(33)
Balance at December 31, 2019	\$ 32,053	\$ 517,690	\$ 41,950	\$ 1,120	\$ 592,813
Net income (loss)	-	-	37,018	(570)	36,448
Other	-	-	-	(586)	(586)
Balance at December 31, 2020	\$ 32,053	\$ 517,690	\$ 78,968	\$ (36)	\$ 628,675

See Independent Accountant's Review Report and Notes to Consolidated Financial Statements.

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Aptim Environmental & Infrastructure LLC
Notes to Consolidated Financial Statements
(in thousands)

Note 1 — Organization and Basis of Presentation

Organization— Aptim Environmental & Infrastructure LLC (the “Company”) is a wholly owned subsidiary of Aptim Corp. (the “Parent”). References to “we”, “our”, “us”, and similar expressions refer to the Company.

Basis of Presentation — The Consolidated Financial Statements reflect the results of operations of the Company and the financial position and cash flows of the Company in conformity with accounting principles generally accepted in the United States of America (“U.S. GAAP”). The Consolidated Financial Statements may not be indicative of the future performance of the Company. To the extent an asset, liability, revenue or expense is directly associated with the Company, it is reflected in the Consolidated Financial Statements. All dollars are presented in thousands. All significant intercompany transactions and accounts have been eliminated.

The Consolidated Financial Statements include all operations of the Company. Any equity investments for which the Company exercises significant influence over but does not control the investee and is not the primary beneficiary of the investee’s activities are accounted for using the equity method. See the “Partnering Arrangements” section of Note 2 – Summary of Significant Accounting Policies for further discussion of our combination policy.

The Consolidated Financial Statements as of December 31, 2020 and 2019, and for the years then ended, included herein, include all known accruals and adjustments necessary for a fair presentation of the consolidated financial position of the Company and its results of operations and cash flows for these periods. Unless otherwise specified, all such adjustments are of a normal and recurring nature.

Note 2 — Summary of Significant Accounting Policies

Use of Estimates — The preparation of the Consolidated Financial Statements in conformity with accounting principles under U.S. GAAP requires us to make estimates and judgments that affect the reported amounts of assets, liabilities, revenue and expenses and the related disclosures of contingent assets and liabilities. We believe the most significant estimates and judgments are associated with revenue recognition for our contracts, including estimating costs and the recognition of incentive fees and unapproved change orders and claims, and fair value and recoverability assessments that must periodically be performed with respect to long-lived tangible assets. If the underlying estimates and assumptions upon which the Consolidated Financial Statements are based change in the future, actual amounts may differ from those included in the accompanying Consolidated Financial Statements.

Revenue Recognition— We follow the guidance of Accounting Standards Codification (“ASC”) 606, *Revenue from Contracts with Customers*. A majority of our revenue is derived from service contracts with customers. Revenues are recognized over time as control of these services is transferred to our customers, in an amount that reflects the consideration the Company expects to be entitled to in exchange for those services. Our service contracts are awarded on a competitively bid and negotiated basis and billings are generally based on contractual billing rates or multipliers on costs. Cost of revenue for our service contracts includes direct contract costs, such as materials and labor, and indirect costs that are attributable to contract activity.

We also derive revenue from contracts for which revenue is recognized over time using the percentage of completion (“POC”) method, based on an input method considering the percentage of actual direct costs-to-date compared to total estimated direct costs to complete each contract. We believe this POC method is less subjective than relying on assessments of physical progress. Under the POC method, the use of estimated costs to complete each contract is a significant variable in the process of determining recognized revenue and is a significant factor in the accounting for contracts. Significant estimates that impact the cost to complete each contract are costs of engineering, materials, components, equipment, labor and subcontracts; labor productivity; schedule durations, including subcontractor or supplier progress; liquidated damages; contract disputes, including claims; achievement of contractual performance requirements; and contingencies, among others. The cumulative impact of revisions in total cost estimates during the progress of work is reflected in the period in which these changes become known, including, to the extent required, the reversal of profit recognized in prior periods and the recognition of losses expected to be incurred on contracts in progress, as assessed at the contract level. Due to the various estimates inherent in our contract accounting, actual results could differ from those estimates.

Our POC contracts are awarded on a competitively bid and negotiated basis and the timing of revenue recognition may be impacted by the terms of such contracts. We use a range of contracting options, including cost-reimbursable, fixed-price and unit-price. Contract revenue for our POC contracts reflects the original contract price adjusted for unconstrained variable consideration. Cost of revenue for our POC contracts includes direct contract costs, such as materials and labor, and indirect costs that are attributable to contract activity. When project mobilization costs are an integrated part of the performance obligation being transferred to the client, these costs are capitalized and charged to Cost of revenue over the performance period.

Performance Obligations – The majority of our contracts consist of one performance obligation, including our engineering, procurement, and construction (“EPC”) services contracts, as we are providing a significant integration of services into a bundle that represents the combined output for which the customer has contracted.

Variable Consideration – The nature of our contracts gives rise to several types of variable consideration, including claims and unpriced changes orders; award and incentive fees; and liquidated damages and penalties. We estimate the amount of revenue to be recognized on variable consideration using the expected value (i.e. the sum of a probability-weighted amount) or the most likely amount method, whichever is expected to better predict the consideration to which the Company is entitled. Estimates of variable consideration are based upon historical experience, known trends and legal enforceability. We recognize revenue for variable consideration when it is probable that a significant reversal in the amount of cumulative revenue recognized will not occur. Our recorded incentive fees, unapproved change orders and claims reflect our best estimate of recovery amounts; however, the ultimate resolution and amounts received could differ from these estimates. See Note 3 – Contract Revenue for additional discussion.

Cash and Cash Equivalents – Cash and cash equivalents are considered to be highly liquid securities with original maturities of three months or less. Most cash receipts and cash disbursements are processed by the Parent and result in a related increase or decrease in the Advances to affiliates balance on the Consolidated Balance Sheet.

Property and Equipment – Property and equipment are recorded at cost and depreciated on a straight-line basis over their estimated useful lives, including plant and field equipment (2 to 10 years). Renewals and betterments that substantially extend the useful life of an asset are capitalized and depreciated. Leasehold improvements are depreciated over the lesser of the useful life of the asset or the applicable lease term. Depreciation expense is primarily included within Cost of revenue and was \$913 and \$221 during the years ended December 31, 2020 and 2019, respectively. See Note 4 – Property and Equipment for disclosure of the components of property and equipment.

Fair Value Measurements – Financial instruments are required to be categorized within a valuation hierarchy based upon the lowest level of input that is significant to the fair value measurement. The three levels of the valuation hierarchy are as follows:

- **Level 1** — Fair value is based upon quoted prices in active markets.
- **Level 2** — Fair value is based upon internally-developed models that use, as their basis, readily observable market parameters. At December 31, 2020, we had one held for sale asset group classified as level 2. See Note 5 – Assets Held for Sale for further disclosure of this held for sale asset group. We did not have any material level 2 classifications at December 31, 2019.
- **Level 3** — Fair value is based upon internally-developed models that use, as their basis, significant unobservable market parameters. We did not have any material level 3 classifications at December 31, 2020 or 2019.

The carrying values of our cash and cash equivalents (primarily consisting of bank deposits), accounts receivable and accounts payable approximate their fair values because of the short-term nature of these instruments (Level 1 Measurements).

Partnering Arrangements – In the ordinary course of business, we execute specific projects and conduct certain operations through joint venture, consortium and other collaborative arrangements (collectively referred to as “venture(s)”). We have various ownership interests in these ventures, with such ownership typically proportionate to our decision making and distribution rights. The ventures generally contract directly with the third-party customer; however, services may be performed directly by the ventures, or may be performed by us, our partners, or a combination thereof.

Venture net assets consist primarily of working capital and property and equipment, and certain assets are restricted from being used to fund obligations outside of the venture. These ventures typically have limited third party debt or have debt that is non-recourse in nature; however, they may provide for capital calls to fund operations or require participants in the venture to provide additional financial support, including advance payment or retention letters of credit.

Each venture is assessed at inception and on an ongoing basis as to whether it qualifies as a variable interest entity (“VIE”) under the consolidation guidance in ASC 810, *Consolidation*. A venture generally qualifies as a VIE when it (1) meets the definition of a legal entity, (2) absorbs the operational risk of the projects being executed, creating a variable interest, and (3) lacks sufficient capital investment from the partners, potentially resulting in the venture requiring additional subordinated financial support, if necessary, to finance its future activities.

If at any time a venture qualifies as a VIE, we perform a qualitative assessment to determine whether we are the primary beneficiary of the VIE and, therefore, need to consolidate the VIE. We are the primary beneficiary if we have (1) the power to direct the economically significant activities of the VIE and (2) the right to receive benefits from, and obligation to absorb losses of, the VIE. If the venture is a VIE and we are the primary beneficiary, or we otherwise have the ability to control the venture, we consolidate the venture. If we are not determined to be the primary beneficiary of the VIE, or only have the ability to significantly influence, rather than control the venture, we do not consolidate the venture. We account for unconsolidated ventures using the equity method. See Note 6 – Partnering Arrangements for additional disclosure.

Income Taxes – The Company is a disregarded entity for federal income, foreign income and state income tax purposes. Therefore, the taxable income of the entity is combined with the Parent and reported in the consolidated U.S. federal income tax return, foreign income tax returns and state income tax returns. As such, the income tax provision, assets and liabilities are accounted for on the Parent. Accordingly, the accompanying Consolidated Financial Statements exclude an allocation of federal, foreign and state income taxes.

Other Operating (Income) Expense, Net – Other operating (income) expense, net, generally represents (gains) losses associated with the sale or disposition of property and equipment.

Going Concern – Management evaluates for each annual reporting period whether there are conditions or events, considered in the aggregate, that raise substantial doubt about the Company’s ability to continue as a going concern within one year after the date the financial statements are issued. The Company believes it has sufficient capital on hand to satisfy working capital requirements for the next twelve months.

Recent Accounting Pronouncements – In February 2016, the FASB issued ASU 2016-02, *Leases*, which requires the recognition of a right-of-use asset and a lease liability for most lease arrangements with a term greater than one year and increases qualitative and quantitative disclosures regarding leasing transactions. The standard is effective for us January 1, 2022, although early adoption is permitted. Transition requires application of the new guidance at the beginning of the earliest comparative balance sheet period presented, or at the beginning of the period of adoption with the transition option, utilizing a modified retrospective approach. We are assessing the timing and method of adoption of the new standard and its potential impact on the Consolidated Financial Statements.

In June 2016, the FASB issued ASU 2016-13, *Financial Instruments – Credit Losses (Topic 326) Measurement of Credit Losses on Financial Instruments*, which replaces the incurred loss impairment methodology in current U.S. GAAP with a methodology that reflects expected credit losses and requires consideration of a broader range of reasonable and supportable information to inform credit loss estimates. The standard is effective for us January 1, 2023, although early adoption is permitted. Transition requires application of the new guidance through a cumulative-effect adjustment to Retained earnings as of the beginning of the first reporting period in which the guidance is effective, utilizing a modified retrospective approach. We are assessing the timing and method of adoption of the new standard and its potential impact on the Consolidated Financial Statements.

Note 3 – Contract Revenue

Contract Assets and Liabilities – The timing of when we bill our customers is generally dependent upon billing terms, milestone billings based on the completion of certain phases of the work, or when services are provided. Revenues recognized to date in excess of cumulative billings on projects for which we have an unconditional right to the consideration is reported on the Consolidated Balance Sheet as Accounts receivable, net. These unbilled receivables were approximately \$9,781 and \$10,066 at December 31, 2020 and 2019, respectively.

Revenues recognized to date in excess of cumulative billings on projects for which we do not have an unconditional right to the consideration is reported on the Consolidated Balance Sheets as Contract assets. Projects with cumulative billings in excess of revenues recognized to date is reported on the Consolidate Balance Sheets as Contract liabilities. The net balances on our Consolidated Balance Sheet are collectively referred to as Contracts in progress, net and the components of these balances at December 31, 2020 and 2019 were as follows:

	December 31, 2020	December 31, 2019
Revenues recognized on contracts in progress	\$ 404,637	\$ 368,308
Billings to date on contracts in progress	(417,361)	(381,917)
Contracts in progress, net	<u>\$ (12,724)</u>	<u>\$ (13,609)</u>

The above amounts are included within the following captions in our Consolidated Balance Sheets at December 31, 2020 and 2019:

	December 31, 2020	December 31, 2019
Contract assets	\$ 7,804	\$ 8,850
Contract liabilities	(20,528)	(22,459)
Contracts in progress, net	<u>\$ (12,724)</u>	<u>\$ (13,609)</u>

Substantially all contract assets as of December 31, 2020 and 2019 are expected to be billed and collected within twelve months.

Any uncollected billed amounts for our contracts, including contract retentions, are reported as Accounts receivable, net. At December 31, 2020 and 2019, Accounts receivable, net included contract retentions of approximately \$3,083 and \$2,908, respectively. Retention agreements vary from project to project and could be outstanding for several months or years. Contract retentions due beyond one year were approximately \$334 and \$272 at December 31, 2020 and 2019, respectively.

Our billed and unbilled revenue may be exposed to potential credit risk if our customers should encounter financial difficulties, and we maintain reserves for specifically-identified potential uncollectible receivables. At December 31, 2020 and 2019, our allowances for doubtful accounts were approximately \$3,019 and \$1,377, respectively.

During the year ended December 31, 2020, the Company sold certain accounts receivable of a single obligor pursuant to a receivables purchase agreement. On the closing date of the sale, the Company sold accounts receivable with an aggregate principal balance of \$152,753. The purchase price for the accounts receivable is subject to adjustment from time to time based on various factors, including but not limited to, (i) the date on which payments on the accounts receivable are actually received from the obligor, (ii) whether the accounts receivable are approved by a specified program management consultant and (iii) whether the Federal Emergency Management Agency or the U.S. Department of Housing and Urban Development obligates funds for the making of payments in respect of such accounts receivable; and additional proceeds under the receivables purchase agreement are expected to be forthcoming. As a result of these anticipated adjustments, the Company recorded a write-off of \$20,857 on the related receivables as of December 31, 2019. This write-off is a function of the sale agreement and not an indication of credit risk.

Customer Concentrations – The table below depicts the percentage of our total revenue derived from our major customers.

	<u>Year Ended</u> <u>December 31,</u> <u>2020</u>	<u>Year Ended</u> <u>December 31,</u> <u>2019</u>
Customer A	31%	0%
Customer B	10%	36%

Customers A and B together accounted for 45% and 65% of Accounts receivable, net at December 31, 2020 and 2019, respectively.

Variable Consideration and Significant Changes in Contract Estimates – At December 31, 2020 and 2019, we had unapproved change orders and claims included in project price totaling approximately \$1,200 and \$0, respectively, and had incentives included in project price totaling approximately \$300 and \$400, respectively. The unapproved change orders at December 31, 2020 are primarily related to changes in scope and delays driven by client actions. Of the aforementioned unapproved change orders, claims and incentives, approximately \$1,400 has been recognized as revenue on a cumulative POC basis through December 31, 2020. The aforementioned amounts recorded in project price reflect our best estimate of recovery amounts; however, the ultimate resolution and amounts received could differ from these estimates and could have a material adverse effect on our combined results of operations, financial position and cash flow.

Note 4 — Property and Equipment

The components of property and equipment at December 31, 2020 and 2019 are as follows:

	<u>December 31,</u> <u>2020</u>	<u>December 31,</u> <u>2019</u>
Property and Equipment		
Plant, field and other equipment	\$ 3,866	\$ 1,352
Leasehold improvements	557	-
Total property and equipment	4,423	1,352
Accumulated depreciation	(3,310)	(600)
Property and equipment, net	<u>\$ 1,113</u>	<u>\$ 752</u>

There were no material impairments of property and equipment during the years ended December 31, 2020 and 2019. During the year ended December 31, 2020, \$13,944 of property and equipment was transferred to the Company from the Parent and \$12,657 was transferred from Property and equipment, net to Assets held for sale. See Note 5 – Assets Held for Sale for additional discussion and disclosure of this asset group.

Note 5 — Assets Held for Sale

As of December 31, 2020, one asset group met the criteria for classification as held for sale and is reported on the Consolidated Balance Sheets as Assets held for sale. This asset group is a property for which we received a buyer's letter of intent (Level 2 Measurement). The Company recognized asset impairments during the year ended December 31, 2020 of \$1,354 triggered by the letter of intent associated with this asset group. These asset impairments are reported in Other operating expense, net in the accompanying financial statements. Subsequent to December 31, 2020, the Company sold this asset group. See Note 10 – Subsequent Events for additional discussion and disclosure of this asset group. No assets were held for sale at December 31, 2019.

The components of Assets held for sale by major class at December 31, 2020 are as follows:

	December 31, 2020
Assets Held for Sale	
Plant, field equipment and other	\$ 11,536
Other non-current assets	2,394
Assets held for sale	<u>\$ 13,930</u>

Note 6 — Partnering Arrangements

As discussed in Note 2 – Summary of Significant Accounting Policies, we consolidate any venture that is determined to be a VIE for which we are the primary beneficiary, or which we otherwise effectively control. Further, we account for our unconsolidated ventures using the equity method.

Consolidated Ventures – The assets of each consolidated venture can only be used to settle the obligations of that consolidated venture. The following table presents the amounts included in the respective line item captions in the Consolidated Balance Sheets at December 31, 2020 and 2019 for all consolidated ventures:

	December 31, 2020	December 31, 2019
Cash and cash equivalents	\$ 12	\$ 38
Accounts receivable, net	-	5,148
Inventory	-	57
Accounts payable	22	410

Equity Method Ventures – We have no material unconsolidated ventures. As of December 31, 2020 and 2019, the equity investment balance is negative. As such, this balance is included in Other non-current liabilities. The Company's earnings from unconsolidated ventures is reported as Equity earnings, net in the accompanying financial statements.

Other – The use of these ventures exposes us to a number of risks, including the risk that our partners may be unable or unwilling to provide their share of capital investment to fund the operations of the venture or complete their obligations to us, the venture, or ultimately, our customer. Differences in opinions or views among venture partners could also result in delayed decision-making or failure to agree on material issues, which could adversely affect the business and operations of the venture. In addition, agreement terms may subject us to joint and several liability for our venture partners, and the failure of our venture partners to perform their obligations could impose additional performance and financial obligations on us. The aforementioned factors could result in unanticipated costs to complete the projects, liquidated damages or contract disputes, including claims against our partners.

Note 7 — Related Party Transactions

The Parent provided certain indirect support and oversight services for the Company during the years ended December 31, 2020 and 2019, such as legal, accounting, information technology, human resources, risk management, treasury, tax, and other infrastructure support. The cost of these indirect services are not allocated to the Company. Transactions processed by the Parent for the Company, primarily receipt and disbursement of cash to clear accounts receivable and payable, as discussed in Note 2 – Summary of Significant Accounting Policies, result in an increase or decrease in Advances to affiliates on the Consolidated Balance Sheet.

During the years ended December 31, 2020 and 2019, the Company performed seconded labor contracts (to and from) with other subsidiaries of the Parent (the "Related Parties"). Revenue associated with the secondment of labor to these Related Parties and the cost associated with secondment of labor from these Related Parties are included in Related party revenue and Cost of revenue, respectively, in the Consolidated Statements of Operations. Accounts receivable from these Related Parties and accounts payable to these Related Parties are included in Accounts receivable - related party and Accounts payable - related party, respectively, on the Consolidated Balance Sheets.

Note 8 — Employee Benefit Plans

Defined Contribution Plans – Eligible employees of the Company can participate in defined contribution plans sponsored by the Parent. The Parent makes contributions to these defined contribution plans for our employees. The Parent does not allocate these contribution cost to the Company.

Health Insurance Plans – Our eligible employees may participate in health and life insurance plans sponsored by the Parent. The Parent does not allocate these health insurance cost to the Company. The Parent bore the actual health and life insurance costs for the Company.

Note 9 — Commitments and Contingencies

Leases – Certain facilities and equipment are rented under operating leases that expire at various dates through 2026. Rent expense for these operating leases was \$228 and \$195 for the years ended December 31, 2020 and 2019, respectively. Future minimum lease payments under non-cancelable operating leases having initial terms of one year or more are as follows:

Year	Amount
2021	\$ 81
2022	94
2023	86
2024	72
2025	74
Thereafter	12
Total	<u>\$ 419</u>

Litigation – We have been and may from time to time be named as a defendant in legal actions claiming damages in connection with the services we provide. These are typically claims that arise in the normal course of business, including employment-related claims and contractual disputes or claims for personal injury or property damage which occur in connection with services performed relating to project or construction sites. Contractual disputes normally involve claims relating to the timely completion of projects, or engineering, maintenance, construction and other services provided by us.

Environmental Matters – Our operations are subject to extensive and changing U.S. federal, state and local laws and regulations, as well as the laws of other countries that establish health and environmental quality standards. These standards, among others, relate to air and water pollutants and the management and disposal of hazardous substances and wastes. We are exposed to potential liability for personal injury or property damage caused by any release, spill, exposure or other accident involving such pollutants, substances or wastes. In addition, in connection with the historical operation of our facilities, substances which currently are or might be considered hazardous were used or disposed of at some sites that will or may require us to make expenditures for remediation.

We believe we are in compliance, in all material respects, with environmental laws and regulations and the Company maintains insurance coverage to mitigate our exposure to environmental liabilities. We do not believe any environmental matters will have a material adverse effect on our future results of operations, financial position or cash flow.

Letters of Credit/Surety Bonds – In the ordinary course of business, we may obtain letters of credit and surety bonds, which we provide to our customers to secure advance payment or our performance under our contracts, or in lieu of retention being withheld on our contracts. In the event of our non-performance under a contract and an advance being made by a bank pursuant to a draw on a letter of credit, the advance would become a borrowing under a credit facility and thus our direct obligation. Where a surety incurs such a loss, an indemnity agreement between the parties and us may require payment from our excess cash or a borrowing under our credit facilities. When a contract is completed, the contingent obligation terminates and the bonds or letters of credit are returned. At December 31, 2020 and 2019, we had outstanding surety bonds of \$51,710 and \$66,349, respectively

Insurance – We maintain insurance coverage for various aspects of our business and operations. We also retain a portion of future losses, if any, through the use of deductibles and self-insured retentions for our exposures related to third party liability and workers' compensation. Liabilities in excess of these amounts are the responsibilities of an insurance carrier. We regularly review estimates of reported and unreported claims through analysis of historical and projected trends, in conjunction with actuaries and other consultants, and provide for losses through insurance reserves. As claims develop and additional information becomes available, adjustments to loss reserves may be required. If actual results are not consistent with our assumptions, we may be exposed to gains or losses that could be material.

Note 10 — Subsequent Events

In connection with the preparation of the Consolidated Financial Statements, the Company evaluated subsequent events after the balance sheet date of December 31, 2020 through October 7, 2021, the issuance date of the Consolidated Financial Statements.

On July 1, 2021, the Company sold for \$13,250 a plant asset classified as Assets held for sale and valued at \$14,000 less estimated closing costs at December 31, 2020 in the Consolidated Balance Sheets. Proceeds from the sale were received on July 1, 2021. This sale resulted in additional asset impairments of \$808 in 2021. See Note 5 – Assets Held for Sale for additional discussion and disclosure of this asset group.

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