



REQUEST FOR PROPOSALS RFP NO. 20260441 / GLADES COUNTY ADAPTATION ACTION PLANNING PROJECT

SOLICITATION NO.: 20260441

DATE: JUNE 17, 2026

052608

Proposed to:
CHARLOTTE COUNTY PURCHASING DIVISION
18500 MURDOCK CIRCLE, SUITE 344
PORT CHARLOTTE, FLORIDA 33948-1094

Proposed by:
APTIM ENVIRONMENTAL & INFRASTRUCTURE, LLC
725 US HIGHWAY 301,
TAMPA, FL 33619

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June 17, 2026

Aptim Environmental & Infrastructure, LLC
725 US Highway 301 South
Tampa, FL 33619

Rhiannon Mills, Senior Contract Specialist
Charlotte County Purchasing Division
18500 Murdock Circle, Suite 344
Port Charlotte, FL 33948-1094

Dear Selection Committee:

Aptim Environmental & Infrastructure, LLC (APTIM), a Louisiana Limited Liability Company incorporated on April 23, 2002 (24 years), is pleased to submit our qualifications to support the Glades County Adaptation Action Planning Project.

APTIM's team includes practitioners who authored Florida's first Adaptation Action Area Planning Guidebook, contributed to updates of Florida's adaptation planning guidance, and have led vulnerability assessments, adaptation plans, Adaptation Action Area programs, and resilience implementation initiatives throughout Florida. This project aligns directly with our experience performing critical asset refinement, sensitivity analyses, Adaptation Action Area identification and prioritization, conceptual adaptation project development, cost estimating, and resilience capital planning. Our team also brings extensive experience evaluating flood control infrastructure, conducting floodplain and watershed studies, and supporting FEMA flood mapping and map revision efforts.

We recognize that Glades County's resilience challenges differ from those of Florida's coastal communities. Adaptation planning must account for inland flooding, drainage constraints, emergency access, utility resilience, agricultural infrastructure, and the broader Lake Okeechobee water management system. Building upon the County's completed Comprehensive Vulnerability Assessment, APTIM will apply a defensible, data-driven process to identify and prioritize Adaptation Action Areas and develop practical projects that reduce risk to critical assets and community services.

Having supported resilience and watershed initiatives throughout Southwest Florida, APTIM understands the importance of developing recommendations that align with regional priorities while addressing Glades County's unique infrastructure, environmental, and economic conditions. Our team will deliver technically rigorous, implementation-ready Adaptation Action Area Plans that support future investment and long-term community resilience.

As Resilience Lead for APTIM, I am authorized to make representations on behalf of the firm and certify that this proposal is submitted in full compliance with the requirements of the solicitation.

Kind Regards,
Aptim Environmental & Infrastructure, LLC

Samantha Danchuk, PhD, PE
Climate and Coastal Resilience Lead
Phone: 561 532 5882 Email: Samantha.Danchuk@APTIM.com

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I. Team Proposed for This Project



A. Background of the Personnel

APTIM brings to Glades County, Charlotte County and the Coastal & Heartland National Estuary Partnership (CHNEP) a multidisciplinary team of resilience and adaptation professionals explicitly assembled to execute the comprehensive scope of services required for the Glades County Adaptation Action Planning Project. To expertly address the solicitation's core requirements, our specialized in-house team features Resiliency and Sustainability Planners, Geographic Information Systems (GIS) Data Analysts, Policy Experts, Environmental Scientists, and Engineers proficient in both traditional gray infrastructure and nature-based solutions.

By leveraging this robust internal capacity, we minimize the scheduling conflicts and competing priorities often associated with a heavy reliance on subconsultants, thereby providing a highly coordinated project management structure and a unified focus on the County's objectives.

Our professionals routinely collaborate across disciplines to translate complex asset vulnerability and sensitivity data into actionable, community-specific Adaptation Action Area (AAA) Plans. This integrated approach ensures we deliver site-specific adaptation strategies that are environmentally sound and supported by clear conceptual designs, realistic cost estimates, and viable funding strategies.

Project Manager

With the vision and experience to lead this project, **Samantha Danchuk, PhD, PE**, will serve as Project Manager, overseeing all activities from initiation through implementation alignment. Dr. Danchuk is a recognized leader in Florida resilience, bringing over 20 years of experience spanning coastal engineering, resilience planning, and program delivery, including seven (7) years as Broward County's Assistant Chief Resilience Officer and Capital Program Administrator and as a consultant, 13 years delivering coastal projects across nine states.

Her experience uniquely bridges policy, planning, and implementation, which is critical to Glades County and Charlotte County's objectives. She has served as Engineer of Record for living shorelines, wetland systems, and coastal protection structures, with direct experience in permitting, design, and construction of nature-based and hybrid solutions integrated with upland drainage and water quality improvements in developed environments.

Dr. Danchuk has been a **statewide leader in Adaptation Action Area (AAA) policy and implementation, supporting development of Florida's first AAA Guidebook (2014), leading AAA designation within the Broward County Land Use Plan for Areas of Regional Significance, and advancing AAA-designated implementation projects in Fort Lauderdale including drainage, backflow prevention, and water and sewer improvements tied to redevelopment**. She also supported AAA strategy through the Southeast Florida Regional Climate Change Compact Regional Climate Action Plan, aligning regional priorities with local implementation.

With APTIM, she **led the update of the Florida Resilient Florida Adaptation Planning Guidebook, establishing current State standards under Florida Statute 380.093**. This provides deep familiarity with State requirements for vulnerability assessment, adaptation strategy development, and project documentation, ensuring Charlotte County's work products are compliant, fundable, and implementation ready.

Her technical expertise includes coastal and rainfall flooding interactions, groundwater constraints, risk and vulnerability assessment, and future conditions design, paired with experience delivering regional sea level rise projections, adaptation plans, and federal shore protection projects.

She is also a NIMS- and TEEX-trained THIRA specialist, bringing a systems-based approach to infrastructure risk and prioritization.

Through this combination of engineering, policy leadership, and implementation delivery, Dr. Danchuk ensures the project produces actionable, fundable, and constructible solutions aligned with Charlotte County's priorities. To fulfill these vital objectives, the following key personnel have been assigned to execute this critical work:

Other Key Personnel

Ivette Vidal, Deputy PM has 20 years of experience in the construction and engineering industries. Currently, she is responsible for managing and coordinating general contractors and construction managers on five simultaneous projects performed for FEMA-funded residential construction projects. With her mechanical engineering design background, problem-solving skills, and proactive approach to construction management, Ms. Vidal-Vilela proves an excellent Project Engineer. Additionally, she recently established herself as a mechanical and electrical equipment expert, is well versed in e-Builder, and excels in her relationship-focused management evident in her work with NYCHA Technical Services Department (TSD).

Cigdem Ozkan, PhD, PE, WEDG is a Resilience Project Manager at APTIM with 11 years of experience in climate risk assessment, hydrodynamic and stormwater modeling, and nature-based solutions integration. She was a technical co-lead in the update of Florida's Adaptation Planning Guidebook under FDEP and has served as Technical Lead for vulnerability assessments in Escambia County, Okaloosa County, Delray Beach, West Miami, and Longboat Key. Dr. Ozkan brings deep familiarity with F.S. 380.093 compliance requirements and asset-level sensitivity methodologies.

James Barrack, PE, CQM has 46 years of experience in civil engineering, water resources, stormwater management, roadway design, coastal engineering, and resilient infrastructure. He specializes in engineering design development, flood risk management, green infrastructure, and civil works projects, providing technical guidance on flood protection measures, design conformance, specifications, cost effectiveness, constructability, and long-term maintenance. His project experience includes Battery Park City redevelopment, Louisiana flood control structures, and shoreline stabilization in Southwest Florida.

Douglas W. Mann, MS, PE, BC.CE is APTIM's lead coastal structural engineer with 39 years of experience and Board Certification in Coastal Engineering from the Academy of Coastal, Port, and Navigation Engineers. He has designed coastal structures, seawalls, jetties, groins, and beach nourishment projects across Florida and is experienced in FDEP CCCL and ERP permitting. Mr. Mann's expertise is most applicable to conceptual gray and green infrastructure designs within priority AAAs, particularly for water control structures, shoreline stabilization, and inland canal management relevant to Glades County's Lake Okeechobee drainage context.

Kristin Dobbins, PE is a Professional Engineer with 26 years of management experience in environmental assessment, remediation, and regulatory compliance. She serves as Contract Manager for APTIM's FDOT District 7 CAR and Tampa-Hillsborough Expressway Authority contracts, managing complex multi-site programs. On this project, Ms. Dobbins will provide regulatory feasibility input for proposed adaptation projects, ensuring that conceptual designs and implementation strategies account for applicable state and federal permitting pathways and constraints.

Lara Wakefield, ENV SP is a Risk Management Specialist with five (5) years of experience in developing custom frameworks and scoring systems to evaluate hazard exposure, vulnerability, and adaptive capacity. She has expertise in climate hazard analyses such as flooding, extreme heat, and

sea level rise to support infrastructure planning and risk-informed decision-making. Ms. Wakefield has experience translating complex risk data into visual tools, scoring matrices, and communication materials to guide resilience strategies and stakeholder engagement.

Doris Otero, PhD, CFM is a Certified Floodplain Manager and Coastal Engineer with more than 12 years of experience in project management, engineering analysis, coastal structure design, and numerical modeling. She currently serves as Project Manager for the City of Sarasota's Coastal Management Program and Charlotte County delivering projects ranging from beach nourishment to seawall design and FEMA PA submittals to maintenance dredging across Southwest Florida. Her expertise in floodplain management and coastal engineering provides this project with technical rigor in flood scenario analysis and infrastructure assessment.

Heather Vollmer, MS, GISP, is a GIS Specialist with 24 years of experience in GIS data mining, engineering and maintenance, remote sensing, spatial analysis, supporting documentation and web app development. She led recent GIS efforts for our team's Vulnerability Assessments in Miami-Dade, Broward, Monroe, Manatee, Sarasota, Lee, Escambia, Santa Rosa, Okaloosa, Walton, and Bay County. Ms. Vollmer has been charged with providing geospatial technological support to streamline and improve client projects and deliverables and performs all QA/QC for database uploads as well as data mining for additional beneficial database information.

Michael Barbour is a Senior GIS Analyst with over 25 years of experience creating and developing GIS applications and database design. Responsibilities include providing support to client projects and office staff as a GIS Analyst. He is also responsible for the design and creation of unique GIS and database applications using off-the-shelf software packages tailored to meet specific client needs.

Beth Forrest, PhD, PG has 19 years of experience assisting with data collection and analysis, permitting, product preparation, and technical report and presentation preparation in support of beach and marsh habitat restoration projects throughout the Gulf coast and eastern U.S. Dr. Forrest has significant data management experience, having worked on several statewide geotechnical and geophysical databases for Louisiana, Florida and Texas. She has worked closely with the Louisiana CPRA to refine and standardize the Louisiana Sand Resources Database (LASARD), which was developed to help facilitate the identification and management of offshore sediment resources.

Hithaishi Hewageegana, PhD is a Senior Numerical Modeler focused on hydrodynamics and morphodynamics in nearshore environments. He has experience with various flooding and coastal modeling projects from sediment transport to water quality collecting, from idealized conditions to multiyear hindcasts.

Maria Fotia, PhD, EI has two (2) years of experience in coastal engineering specializing in numerical modeling and has experience in running numerical modeling programs for projects dealing with different coastal engineering scenarios.

Nate Pilsen provides project management support including proposal coordination, contracting, and cost tracking. He utilizes AI tools to optimize project estimations and data management, streamlines company spreadsheets and change orders, and has prior experience in financial analytics and fund research from internships at Triago Limited/Houlihan Lokey and Taurus Private Markets. On this project, he will provide administrative and analytical support to the project management and economics team.

Jacob Rice, PE, has 10 years of experience in the management of beach renourishment, beach strategy, long-term shoreline stabilization and resiliency projects. He additionally has experience in the USACE planning process, design, permitting – applications through issue, client coordination, bidding,

construction administration, and hurricane modeling and coastal design analysis for potential storm surge.

Nicole Buranzon-Odell, CFM has nearly two decades of leadership in engineering and construction program management. She brings deep technical and strategic expertise to her roles as APTIM's Market Sector Director of Flood Control, Louisiana Regional Director, and Senior Project Manager. She has successfully delivered more than \$500 million in capital program value, including the landmark Bayou Chene Flood Control Project, the largest floodgate of its kind worldwide. Known for her collaborative approach, Ms. Buranzon-Odell excels in navigating complex local and state agency environments, ensuring stakeholders are fully aligned from concept through construction.

Katy Brown, MS brings over 13 years of experience in biological monitoring including marine habitat characterization of natural and artificial reef communities, coastal wetland biological surveys and protected species surveys. Ms. Brown routinely coordinates and develops environmental documents required to obtain state and federal permits for coastal projects. She is experienced in NEPA documentation including the preparation of Environmental Assessments and Environmental Impact Statements.

Wilhelm Romoser is an economics professional with experience translating financial risk analytics into strategy and investment recommendations. He brings expertise in econometric modeling, cost-benefit analysis, and policy research, and is proficient in Python, R, SQL, MATLAB, ArcGIS, and Excel. On this project, Mr. Romoser will support the development of order-of-magnitude cost estimates, cost-benefit documentation for grant applications, and funding feasibility screening across FEMA, Resilient Florida, and FDOT programs. He will work under the direction of senior engineers and planners to ensure economic analysis is both accurate and decision ready.

Edwin Fortier is a Senior Cost Estimator and Project Management Professional at APTIM with 11 years of experience across industrial, government, and environmental projects. He has served as cost controls manager and project controls lead on complex capital programs ranging from industrial turnarounds to environmental remediation initiatives. Mr. Fortier will provide order-of-magnitude cost estimates for conceptual adaptation projects, with estimates informed by recent market conditions and structured for direct use in grant applications and capital improvement planning.

APTIM will not be utilizing subconsultants for this pursuit.



“The APTIM Team provided high quality professional services for this project. Dr. Danchuk and her team are very well qualified, organized, and thorough in their resilience-focused work. I highly recommend APTIM for their expertise not only in the field, but in their understanding of the local conditions as well”

- Sarah Marrs, Jacobs | Project: Miami Dade Resilience Hubs Energy Resiliency Hub and Multi-Hazard Analysis



20 YEARS
EXPERIENCE

Education

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

Registrations/Certifications

- Professional Engineer, Civil, Florida
- LEED-Green Associate

Training

- Critical Infrastructure Protection, Texas A&M Engineering
- Infrastructure Disaster Management

Skills & Experience

- Project Management
- Vulnerability/Risk Assessment
- Community Engagement

SAMANTHA DANCHUK, PHD, PE, LEED

Project Manager | APTIM

Professional Summary

Samantha Danchuk, PhD, PE, is the Program Manager for APTIM's Florida Resiliency Program. Dr. Danchuk has extensive experience in vulnerability and risk assessments, coastal hazard modeling, strategic flood and energy resilience policy, and futureproofed infrastructure engineering serving to support environmental sustainability and redevelopment of vulnerable regions. She has been at the forefront in resiliency efforts in Florida. She also has a strong reputation as a trusted source amongst regional and **national climate adaptation networks** and credited as the **technical lead for nationally recognized policy and project case studies**.

Relevant Experience

Aptim Environmental & Infrastructure, LLC, Climate and Coastal Resilience Lead; June 2021–Present
[Project Manager; Longboat Key Sea Level Rise Vulnerability Assessment Adaptation Plan, FL](#)

Project Manager and Resilience Engineer responsible for coastal hazard vulnerability assessment, risk mapping, resilient capital improvement plan and community adaptation strategy.

[Project Manager; Resilient Florida Planning Grant Tasks & Updates to the Florida Adaptation Planning Guidebook, FL](#)
State guidebook on adaptation planning and development of performance metrics and technical standards for projects funded by state resilience grants. Included engaging stakeholders statewide to incorporate feedback on best practices, legislative compliance review and

guidebook development.

[Project Manager; Okaloosa County Vulnerability Assessment and Adaptation Plan, FL](#)

Project manager for exposure and sensitivity analysis to assess vulnerabilities for critical assets and resources. Project was Resilient Florida grant funded and in compliance with guidance. Geospatial modeling, hazard analysis, risk calculations and mapping were included.

[Project Manager; City of Delray Beach, Vulnerability Assessment & Adaptation Plan, Delray Beach](#)

Resilient Florida funded adaptation plan to address flooding across the city, both inland and along the intracoastal. Project included interviews to assess adaptive capacity, public outreach and staff engagement to inform adaptation strategies and plan development.

Project Manager; City of Pompano Beach Adaptation Plan funded through the State Resilient Florida Program, Pompano Beach, FL

Tasks include guiding development of a Florida Adaptation Planning Guidebook—compliant plan building on the completed flood vulnerability assessment, engaging City departments, stakeholders, and the public to incorporate priorities into strategy development, and translating risk findings into prioritized, funding-ready resilience projects aligned with capital planning, infrastructure management, and state and federal funding opportunities.

Project Manager; Escambia County Vulnerability Assessment

APTIM, in collaboration with Jacobs, is performing exposure and sensitivity analysis to assess vulnerabilities for critical assets and resources. Project was Resilient Florida grant funded and in compliance with guidance. Geospatial modeling, hazard analysis, risk calculations and mapping were included.

Project Manager; Multiple Military Installation Resilience Reviews (Emerald Coast, South FL, Central FL, & NE FL)

Led military installation resilience reviews that convened multiple cities and counties, over 30 jurisdictions, to assess shared mission critical vulnerabilities, extract prioritized project lists and a regional strategy, and—through joint site inspections to ground-truth risks—establish the coordinated implementation pathways (funding, permitting, MOUs) needed to move projects from plan to delivery.

Project Manager; Pinellas County Coastal Summary Plan & Update Developed comprehensive planning document for the County to reference which included a history of the coastal management program and its elements, a review of federal authorizations, a snapshot of existing conditions for each coastal element/ area, needs and milestones for the next six years, a review of other communities' coastal management programs and recommendations for management of the Pinellas County program.

Project Manager; Captiva Island Flood Risk Vulnerability Assessment, FL

Project manager and resilience engineer responsible for coastal hazard vulnerability assessment, GIS risk mapping, resilient capital improvement plan and community adaptation strategy. Supported presentations to officials and special committee on sea level rise. Developed materials for public education on risk and coastal processes.

Project Manager; AARFRC Atlantic Council—Miami Dade County Resiliency Hub and Vulnerability Assessment, FL

Project Manager for countywide risk assessment of electrical infrastructure and social vulnerabilities to support siting of resilience hub prototypes. Developed new methodology for weighting energy burden, local system reliability and infrastructure risk by census tract. Developed criteria and questions for stakeholder outreach and interviewed residents.

Broward County, Associate Chief Resilience Officer, March 2021–June 2021; Assistant Director, June 2014–March 2021

Broward County Land Use Policy for Future Conditions

Co-developer of policies for minimum tidal flood barrier/ seawall elevation, future groundwater table drainage design elevation, penny transportation projects surtax resilience criteria, adaptation action areas of regional significance and land use resilience criteria for densified redevelopment. A series of workshops were facilitated to gain consensus for policies and numerous presentations were made to Broward County Commission and Planning Council for policy approval.



20 YEARS
EXPERIENCE

Education

- BS, Mechanical Engineering, New Jersey Institute of Technology, NJ

Training

- e-Builder
- AutoCAD
- ProEngineer Modeling
- Hass Fire Systems
- NYCHA Generator systems
- Demand Response Utility Program

Skills & Experience

- 10 years of experience managing multiple contracts simultaneously for NYCHA, using e-Builder
- Managed large-scale housing projects involving multiple buildings and systems
- Solid understanding of NYC building codes, departments, permitting and inspection processes, and requirements

IVETTE VIDAL-VILELA

Deputy Project Manager | APTIM

Professional Summary

Ms. Vidal-Vilela has 20 years of experience in the construction and engineering fields. Her mechanical engineering design background, strong problem-solving skills, and proactive approach to construction management and delivery make her an effective and successful Project Engineer. Her strong engineering background and understanding of design is a distinguishing skillset when it comes to project execution and completeness. Ms. Vidal-Vilela is known for her relationship-focused management style in leading all phases of project execution to ensure that all stakeholders, from Architect/Engineer of Record to Contractors to Subcontractors to Owner, are in alignment for successful project delivery. This is evidenced by her strong working relationship with NYCHA Technical Services Department (TSD) related to managing Sandy Recovery and Resilience projects, including commissioning and turnover.

Relevant Experience

Aptim Environmental & Infrastructure, LLC, Project Manager; February 2017 – Present

Project Manager/Construction Manager Oversight. Hurricane Sandy Recovery and Resilience Program; NYCHA; New York, NY

As NYCHA's representative, Ms. Vidal-Vilela is responsible for managing and coordinating general contractors and construction managers on five simultaneously performed FEMA-funded residential construction projects ranging in value from \$5M to \$41M. Ms. Vidal-Vilela coordinates meetings with NYCHA, contractors, and construction managers and oversees onsite activities to ensure compliance with contract requirements for safety, quality, and timeliness. Involving multiple building systems, the large-scale renovations have included new roofs, new boiler plants, flood

protection systems, generators rooms, and all associated mechanical and electrical systems upgrades and improvements. Ms. Vidal-Vilela participates in pre-design constructability reviews and evaluates potential capital projects both for design compliance and construction feasibility for field installation. She uses e-Builder to review, track, and monitor contractor and construction manager reporting, construction submittals, site safety plans, schedules, subcontractor approval packages, and all project documentation. She also uses e-Builder to provide daily progress reports, review and process invoices, and manage change orders.

Ms. Vidal-Vilela recently established herself as a mechanical and electrical equipment expert, specifically regarding generators and boilers. She managed and worked with contractors and construction managers during the commissioning and closeout phases to ensure all contract requirements were met and all associated city agencies inspections were completed and documented for smooth turnover and handover to NYCHA. During this process, Ms. Vidal-Vilela was responsible for overseeing the startup and testing of boilers and associated mechanical systems and emergency generators for the entire project portfolio and coordinated closely with manufacturer vendors to address any equipment issues prior to equipment turnover to NYCHA. She worked closely with the equipment vendors and local utility company to ensure compliance with local regulations and programs, specifically Demand Response incentives through Con Edison. This involved verifying the design and installation of electric equipment to meet Con Edison requirements, as well as coordinating necessary testing and demonstration of automatic transfer switches (ATS) for back-up emergency generator power.

GEA Consulting Engineers, New York, NY, 2005–2016

Project Manager/Project Engineer. Multiple MEP Design Projects

As Project Manager, Ms. Vidal-Vilela managed the design and construction phases of multiple residential and commercial projects simultaneously performed in urban areas. Ms. Vidal-Vilela coordinated with construction managers, contractors, and designers; responded to MEP RFIs from contractors to clarify design questions for construction; reviewed construction submittals; and prepared design proposals for added scopes. She was also responsible for reviewing bids and change orders from contractors and verifying that scope was captured in the price and that contractual inclusions/exclusions were reasonable/accepted based on the designed construction documents. She reviewed tenant fit-out drawings to confirm the compatibility of new tenant-designed systems with the building's existing core and shell mechanical systems. In these two roles, Ms. Vidal-Vilela interacted with various local authorities having jurisdiction such as NYCDOB, NYCDEP, and FDNY during the design process to obtain design drawing approvals, which gave her significant familiarity with NYC construction operations. As Project Engineer, Ms. Vidal-Vilela developed construction documents (from design development to construction bid documents) for commercial and residential construction projects using industry standards and applicable building codes as basis for design.

CSA Group, New York, NY, 2007–2012

Plumbing & Fire Protection Engineer. Multiple Plumbing & Fire Protection Design Projects

As the Plumbing & Fire Protection Engineer, Ms. Vidal-Vilela developed plumbing and fire protection construction documents for multiple commercial and residential construction projects in New York urban areas using industry standards and applicable building codes as basis for design. Ms. Vidal-Vilela coordinated between the MEP design teams, Architect, and client to ensure conformity with the project intent and project budget. She also coordinated with the MEP design team and construction trades prior to construction to minimize conflicts. Ms. Vidal-Vilela interacted with local agencies such as NYCDEP to file and obtain approval of required filings such as backflow preventer devices and industrial waste (grease interceptors, oil/water separators). She provided ongoing support during the construction phase of NY SCA schools and NYC MTA projects, including performing site visits, verifying compliance to contract drawings, and preparing cost estimates and supportive documentation.



11 YEARS
EXPERIENCE

Education

- PhD, Civil and Environmental Engineering, University of Central Florida
- MS, Civil and Environmental Engineering, University of Central Florida
- BS, Civil Engineering, Middle East Technical University

Registrations/Certifications

- Professional Engineer, Civil, Florida
- Waterfront Edge Design Guidelines (WEDG) Associate

Training

StormWise, Online, 2022

Skills & Experience

- Vulnerability Assessment
- Risk Assessment
- Adaptation & Implementation Planning
- Data Analysis
- FEMA Coastal Flooding

CIGDEM OZKAN, PHD, PE, WEDG

Resilience Engineer | APTIM

Professional Summary

Dr. Cigdem Ozkan has eleven years of experience investigating innovative solutions to resiliency and climate adaptation challenges. She has proven expertise in climate risk assessment, hydrodynamic and stormwater modeling, and emergent technology adoption to enhance decision-making in climate resilience and environmental equity. She is skilled in stakeholder engagement and strategic planning, with a track record of integrating effective solutions into risk mitigation frameworks. Dr. Ozkan is adept at developing data-driven roadmaps, performance metrics, and regulatory compliance strategies to support infrastructure sustainability and long-term climate resilience. She integrates nature-based solutions with engineered infrastructure to resolve complex environmental challenges and is a co-author of Florida's updated Adaptation Planning Guidebook.

Relevant Experience

Aptim Environmental & Infrastructure, LLC, Resilience Project Manager; January 2023–Present

[Resilience Engineer; Resilient Florida Adaptation Planning Guidebook and Performance Metrics, FL](#)

Co-led the update of FDEP's Florida Adaptation Planning Guidebook, including writing content on compound flooding, adaptive capacity, and implementation planning. Organized and hosted a public workshop with over 300 attendees. This work directly establishes current State standards under F.S. 380.093 — the same standards governing Glades County deliverables.

[Technical Climate and Resilience Expert; Longboat Key Sea Level Rise Vulnerability Assessment and Adaptation Plan, FL](#)

Led hazard scenario identification, vulnerability analysis, and QC

for an island-wide VA. Developed adaptation strategies including public works engineering, policy changes, and ordinance revisions. Directly applicable to Glades County's asset-level sensitivity and AAA identification tasks.

[Resilience Engineer; Escambia County Vulnerability Assessment and Adaptation Plan](#)

Technical Lead for comprehensive VA analyzing 20 flood scenarios across 1M+ assets. Identified priority assets at risk, developed asset ownership framework, delineated zones for adaptation, and facilitated public outreach. Directly mirrors Task 3 (Sensitivity Analysis) and Task 4 (AAA Identification) in the Glades County scope.

[Resilience Engineer; Okaloosa County Vulnerability Assessment and Adaptation Plan](#)

Technical Lead for exposure and sensitivity analysis to assess vulnerabilities for critical assets and resources. Project was Resilient Florida grant funded and in compliance with guidance. Geospatial modeling, hazard analysis, risk calculations and mapping was included.

[Resilience Engineer; City of Delray Beach, Vulnerability Assessment & Adaptation Plan, FL](#)

Assisted in the development of the Adaptation Plan for the City of Delray Beach. Responsibilities include conducting comprehensive research on climate impacts, engaging with city officials and the public to gather input, and drafting the adaptation strategies.

[Climate and Coastal Resilience Engineer; Captiva Island Bayside Adaptation Plan, FL](#)

Led the Engineering Report and Public-Private Implementation Analysis of the Bayside Adaptation Plan which is a comprehensive initiative aimed at enhancing the resilience of Captiva Island's bayside shoreline. The project addressed climate change challenges, rising sea levels, and increasing storm intensity, which threaten the island's ecological and infrastructural integrity. The adaptation plan proposed both short-term and long-term adaptive strategies, developing engineering plans, and engaging private property owners to refine the implementation of strategies.

[Resilience Engineer; City of West Miami Vulnerability Assessment, West Miami, FL](#)

Performed exposure and sensitivity analysis to assess vulnerabilities for critical assets and resources. Project was Resilient Florida grant funded and in compliance with guidance. Geospatial modeling, hazard analysis, risk calculation and mapping was included. Priority focus was given to schools, drainage infrastructure and parks.

[Project Manager; Town of Belleair Bluff Restoration and Erosion Abatement, FL](#)

Led the planning and execution of a large-scale environmental restoration project, overseeing project scope development, stakeholder coordination, and schedule management. Directed field data collection, erosion analysis, and water quality assessments to identify sustainable mitigation strategies. Managed project budgeting, reporting, and compliance with regulatory agencies, ensuring alignment with Town of Belleair and SWFWMD objectives. Facilitated interdisciplinary collaboration to develop conceptual design alternatives for bluff stabilization, integrating engineering, environmental, and cost feasibility analyses.



46 YEARS
EXPERIENCE

Education

- MS, Civil Engineering, University of Maryland
- BS, Civil Engineering, University of Maryland

Registrations/Certifications

- Professional Engineer, Florida, License No. 66093
- Hazardous Waste Operations and Emergency Response (HAZWOPER) Certification

Skills & Experience

- Const Quality Management USACE and Navy
- EPA SWMM Model
- Intergraph COGO, Inroads
- Civil 3D
- HydroCAD

JAMES BARRACK, PE, CQM

Water Resource/Stormwater Management| APTIM

Professional Summary

Mr. James Barrack has over 46 years of experience in the civil, transportation, and water resources industry. He has ample experience in roadway and stormwater management design, flood risk management, technical design review, civil design and construction planning and implementation, and coastal engineering, coastal and marine hydrographic and geophysical surveying. He is a registered professional engineer in nine states.

Relevant Experience

Aptim Environmental & Infrastructure, LLC, Lead Civil Engineer I; February 1991–Present

Senior Civil Engineer; Sanibel Causeway Shoreline Stabilization Project, Lee County, FL

Preliminary roadway and stormwater management design within the park areas of Islands A and B. Evaluated alternative roadway and parking designs to meet County needs. Integrated the parks amenities plan into the civil roadway and parking layouts. Evaluated the feasibility of adding bike lanes to the Causeway toll road.

Lead Civil Engineer; Hillsboro Bank Stabilization Project, South Florida Water Management District; Broward and Palm Beach Counties, FL

10.6 miles long and required dredging, repair, and restoration of the canal banks. This project design restored the conveyance to its design capacity. Performed review of the 30% design plans and the documentation reports. The project involved Inland Flood Risk Management.

Civil Site Engineer; USACE New Orleans District Inner Harbor Navigational Canal (IHNC) Lake Borgne Surge Barrier; New Orleans and St. Bernard Parish, LA

Prepared design draft and final as-built drawings. Defined engineering roles for generation and tracking of RFIs. Maintained the submittal register generated from Specs Intact and IFC documents. Reviewed submittal register items, and project controls interaction with the Government RMS/QCS system. Prepared RFI procedures for a first-of-its-kind flood control. Created construction submittals, RFI procedures, and RFI generation. Led project controls and interactions with the Government RMS/QCS system. Prepared the Draft and Final as-built drawings.

Lead Civil Engineer; Sandsprit West and East Boat Ramps; Port Salerno, FL

Led the west and east boat ramp facilities. Analyzed and reconfigured inadequate roadway vertical curves at ramp approaches, extending their length to accommodate longer and low-clearance boat trailers. Engineered asphalt pavement and concrete apron grade adjustments.



39 YEARS
EXPERIENCE

Education

- MS, Coastal and Oceanographic Engineering, University of Florida
- B.C.E., Civil Engineering, University of Delaware

Registrations/Certifications

- Professional Engineer, Florida, License No. 44046
- Board Certified in Coastal Engineering by Academy of Coastal Ocean, Port, and Navigation Engineers, ASCE

Skills & Experience

- Completed 50 coastal and marine infrastructure projects

DOUGLAS MANN, PE, BC.CE

Senior Coastal Engineer | APTIM

Professional Summary

Mr. Douglas Mann, PE, BC.CE, has worked as a coastal engineer with APTIM since 1987. He is experienced in all aspects of coastal engineering including dredge and fill projects for material disposal and beach nourishment, beach and inlet engineering, coastal structure design (including breakwaters, groins, seawalls, jetties, and Permeable Adjustable Groin (PAG) design) as well as marine-related upland structures. He has been involved in the design of boat ramps, marina renovations, and other boating related projects. He is experienced in Joint Coastal permitting, Environmental Resource permitting, and FDEP Coastal Construction Control Line (CCCL) permitting. He was awarded the FSBPA Per Bruun Distinguished Service Award in 2017.

Relevant Experience

Aptim Environmental & Infrastructure, LLC, Project Manager; February 1987–Present

Engineer of Record; City of Delray Beach Seawall Vulnerability Assessment, Delray Beach, FL

Engineer of Record for City wide Intracoastal Waterway seawall and stormwater outfall inspections and assessed sea level rise for 30- and 75-year horizons. Outline capital improvements for public and private infrastructure. (2017-2018). Engineer of record for reinspection of City owned seawalls and established capital improvement priorities for repairs (2023). Engineer of record for the design of approximately 10 small seawall improvements (2024-2025).

Project Manager and Engineer of Record; Initial Assessment of Vulnerability due to Sea Level Rise and Recurring Storm Events, Town of Longboat Key, FL

Performed preliminary assessment of vulnerabilities to private and public infrastructure due to sea level rise and recurring storm events (2018). Project manager for the data collection of stormwater infrastructure (2019), and bulkhead elevations in critical areas of the Town (2020).

Staff Engineer; Sea Level Rise and Flooding Assessment along Canal Drive, Town of Carolina Beach, NC

Staff engineer for an assessment of recurring flooding due to elevated tides along Canal Drive. Provided recommendations regarding bulkhead raising and stormwater backflow prevention.

Engineer of Record; Collier Boulevard, (CR 951), Collier County, FL

Engineer of record for the design of bulkhead and boat ramp replacement at a busy County ramp. ADA floating dock added to the park infrastructure (2020-2021). Designed bulkhead and boat ramp replacement (2022-2023). Provided construction engineering services (2025).

Engineer of Record; Caxambas Pass Park Bulkhead, Dock and Boat Ramp Rehabilitation Project, Collier County, FL

Engineer of record for the replacement of the bulkhead, docks, and boat ramp at a busy County Park in Marco Island (2021-2023). Engineer of record for construction engineering services (2024-2025).

Engineer of Record; Caxambas Pass Park, Sheriff's Office Boat Lift Project, Collier County, FL Engineer of record for the addition of a boat lift to the existing marine facility to support Sheriff's Office operations. Attended two public meetings to obtain regulatory approvals (2024-current).

Coastal Engineer; Pinellas County Coastal Erosion Control Structures Inspection and Assessment, Pinellas County, FL

Engineer of record for the observation and inspection of various Gulf fronting coastal structures. Utilized a grading system of performance and condition to manage long term performance of the structures and indicate when capital improvements are required. Made recommendations for capital improvements (2020). Condition assessment was repeated following the passage of two hurricanes, (2024-2025). Engineer of record for numerical model evaluation of alternatives to improve beach nourishment performance in the vicinity of a 1975 groin installation at Sunset Beach (2023-2024).

Engineer of Record; Nathan Benderson Park South Shoreline Stabilization, Sarasota County, FL

Engineer of record for revetment reconstruction, revetment extension and boat ramp repairs along the ¼ mile south shoreline (2020-2022). Project impacted by Hurricane Ian's passage resulting in redesign of entire project and replacement of the boat ramp (2022- 2024). Engineer of record for ¼ mil long wetland planter (nature-based solution) along the east shoreline to provide embankment protection while maintaining existing wetland vegetation (2024-2025).

Project Manager; Greer Island Spit Management Project, Town of Longboat Key, FL

Design and permitted a sand management (dredging) plan to control the spit migration at Greer Island. Project involved the design and permitting of two emergency dredging projects to keep the lagoon open while the long-term management plan could be implemented. Engineer of record for construction engineering services.

Engineer of Record; Murderkill River and St. Jones River Resiliency Improvement Evaluation, Dover, DE

Engineer of record for the evaluation of the potential of utilizing sediments within the rivers or adjacent nearshore waters to improve the resiliency of the adjacent communities. Project co-funded by the State of Delaware and the National Fish and Wildlife Federation (2020-2021).

Engineer of Record; Sanibel Causeway Island B Stabilization Project, Lee County, FL

Engineer of Record for the design and permitting of the structural stabilization and beach nourishment projects of the park surrounding the road right of way. Project protected extensive seagrass resources along both shorelines of the island. Project manager for upland improvements.

Project Manager/Engineer of Record; Pelican Landing Community Association Beach Nourishment Project, Lee County, FL

Project manager and engineer of record for a beach nourishment and adjustable groin project for restoration of a portion of Big Hickory Island, Florida. Project included a small dune component (2009-2013). Project manager and engineer of record for a beach nourishment for restoration of a portion of Big Hickory Island, Florida. Project included a small dune component. Project closed a tidal breach caused by Hurricane Ian (2022-23).



26 YEARS
EXPERIENCE

Education

- M.E., Environmental Engineering, University of Florida, 2003
- Certificate Program, Environmental Policy Management, University of Florida, 2003
- B.S., Ocean Engineering, United States Naval Academy, 1995

Registrations/Certifications

- Professional Engineer, License #69199, Active, FL

Skills & Experience

- Managed hundreds of Level II assessments, Level III construction support, and ER projects for FDOT and FDEP.

KRISTIN DOBBINS, PE

Environmental Assessment/Remediation | APTIM

Professional Summary

Kristin Dobbins is a professional engineer with 26 years of management experience in a variety of fields, including contract manager and project engineer for APTIM. She has served as Contract Manager on the FDOT District 7 Contamination, Assessment and Remediation (CAR) contracts since 2010. She is also Contract Manager for the Tampa-Hillsborough Expressway Authority (THEA) CAR, and FDOT 7 Asbestos Services contracts. Since joining APTIM in November 2003, she has served as a Project Manager and Project Engineer on environmental remediation and assessment projects for several clients including FDOT 7 and FDEP.

Relevant Experience

Aptim Environmental & Infrastructure, LLC | Contract Manager | April 2010–Present

Contract Manager, FDOT 7 CAR Contract, Tampa, FL

Oversees/manages the FDOT 7 CAR contract, providing mentoring and direction to project managers, technical personnel and support staff involved with the program. Manages assessment and remediation projects for FDOT at sites impacted by petroleum hydrocarbons, chlorinated solvents, metals, asbestos and solid waste. Prepares scopes of work, cost estimates, and reports for various FDOT projects. Tracks labor utilization, contract compliance, and project budgets.

Contract Manager, THEA CAR Contract, Tampa, FL

Oversees/manages the THEA CAR contract. Manages assessment and remediation projects for THEA at roadway improvement project sites impacted by various contaminants and solid waste.

Contract Manager, FDOT 7 Asbestos Services Contract, Tampa, FL

Oversees/manages the FDOT 7 Asbestos Services contract. Manages asbestos surveys and abatement oversight projects for FDOT 7 Right-of-Way.

Project Manager & Project Engineer, FDOT 7 CAR Contract, Tampa, FL | Nov 2003–2010

Project engineer and project manager. Provides oversight of technical/field personnel for on-site construction support activities, permitting, and UST closures. Manages project investigations and on-site activities for technical reports including ASTM Phase I and II Environmental Assessments, Level I hazardous material investigations, Level II environmental assessments, and Level III remediation.



5 YEARS
EXPERIENCE

Education

- MS Risk Analysis, Kings College, London, UK
- BS International Relations, Durham University, Durham, UK

Registrations/Certifications

- Envision Sustainability Professional
- Waterfront Edge (WEDG) Professional

Skills & Experience

- Storm Damage Assessments
- Economic Evaluations
- Climate Resilience Studies

LARA WAKEFIELD, MSC, ENV SP, WEDG

Risk Assessment | APTIM

Professional Summary

Ms. Wakefield is a skilled professional with expertise in climate resilience, environmental planning, and infrastructure risk assessment. She has contributed to projects across public, nonprofit, and research sectors, integrating hazard, vulnerability, and exposure data into strategies for adaptation, planning, and decision-making. Her experience includes managing a countywide stormwater master plan for Pasco County and contributing to federally funded vulnerability assessments addressing sea level rise, extreme heat, and flooding, with work spanning government, academia, and international organizations.

Relevant Experience

Aptim Environmental & Infrastructure, LLC, Risk Management; May 2025–Present

[Risk Management Project Manager, Charlotte County Threat & Hazard Identification & Risk Assessment, FL](#)

Led development of a FEMA CPG 201–aligned THIRA and Stakeholder Preparedness Review for Charlotte County — the issuing county for this Glades County RFP. Tasks included hazard scenario development, impact analysis, capability target-setting

across FEMA's 32 core capabilities, gap analysis, and funding integration. This project provides Ms. Wakefield with direct familiarity with Charlotte County Emergency Management and the regional hazard context applicable to Glades County.

[Risk Management Project Manager, Northeast Military Installation Resilience Review, FL](#)

Supported a regional resilience and vulnerability assessment focused on mission assurance and readiness for key Northeast Florida military installations and surrounding communities. Conducted GIS-based screening and literature/data review to characterize coastal and tidal-river stressors and translate findings into actionable considerations. Produced deliverables, including a shoreline resilience white paper, synthesizing regional shoreline conditions and resilience implications.

[Risk Management Project Manager; Town of Longboat Key Adaptation Plan Update, FL](#)

Provided technical assistance to advance the implementation of prioritized adaptation strategies for the Town of Longboat Key. Analyzed geospatial data to assess the impact of new policy measures and developed recommendations to support compliance monitoring and tracking.

Risk Management Specialist; Global Water Supply Risk Assessment, Norwegian Cruise Line, FL

Supported development of a global, metric-based water-supply risk framework evaluating water stress, drought exposure, biodiversity sensitivity, governance conditions, and climate projections across international port locations.

Risk Management Specialist; Village of Estero Comprehensive Vulnerability Assessment, FL

Supported the development of a comprehensive vulnerability assessment for the Village of Estero, evaluating the exposure and risk of community assets under multiple sea level rise and flood scenarios. Assisted with public outreach efforts and preparation of summary memos communicating key findings and recommendations.

Risk Management Project Manager; Deerfield Beach Sustainability Roadmap Implementation Support, FL

Supported implementation of key strategies from the City of Deerfield Beach's 2024 Sustainability Roadmap, aimed at enhancing municipal sustainability and resilience. Coordinated technical analysis and stakeholder engagement for municipal sustainability initiatives in transportation, energy and water.

Pasco County Public Works Environmental Division, New Port Richey, FL, November 2023 - April 2025

Planner II-Resiliency

Integrated resilience planning principles into stormwater management and developed risk assessment frameworks using custom matrices. Managed the Stormwater Management Master Plan Update and supported the Resilient Pasco Strategic Action Plan. Coordinated across departments and external consultants to align planning activities with county resilience goals.

Resilience and Vulnerability Assessment Specialist

Supported countywide vulnerability assessments under the Resilient Pasco grant initiative, funded by the Florida Department of Economic Opportunity and U.S. Department of Housing and Urban Development. Collaborated with departments and consultants to evaluate risks to County-owned facilities and infrastructure. Assisted in strategic planning related to climate change, flooding, and extreme heat.

World Nuclear Association, London, UK, March 2021 - April 2021

Intern

Risk/hazard analyses in support of international energy policy discussions. Developed a white paper on the role of low-carbon electricity in achieving the United Nations Sustainable Development Goals. Conducted literature reviews and assessed public perceptions and historical trends related to nuclear power deployment. Recent assignments have included: Low-carbon electricity access and energy risk policy brief. Vulnerability Assessment

Department for Business, Energy, and Industrial Strategy (UK Government), London, UK, January 2021 - April 2021

Researcher

Literature reviews and secondary data analysis focused on trends in the circular economy and their implications for product safety and consumer behavior. Supported internal reporting and knowledge development on reuse, recycling, and repair frameworks for sustainable consumption. Recent assignments have included: Circular economy policy research report.



12 YEARS
EXPERIENCE

Education

- PhD, Environmental Engineering, Texas A&M University-Kingsville
- MS, Environmental Engineering, Texas A&M University-Kingsville
- BS, Environmental Engineering, Universidad Pontificia Bolivariana, Bucaramanga, Colombia

Registrations/Certifications

Certified Floodplain Manager

Skills & Experience

- Coastal and Environmental
- Beach Nourishment
- Coastal Structures
- Numerical Modeling of Coastal Processes
- Inlet Management

DORIS OTERO, PHD, CFM

Coastal Engineer | APTIM

Professional Summary

Doris Otero, PhD, CFM is a Project Manager providing a variety of management and engineering services. She has managed diverse teams in coastal and beach nourishment projects throughout Florida. Her expertise includes supporting projects with FEMA PA submittals. Her recent projects have included engineering analysis, development of construction plans and specifications, project administration, construction bidding support and administration, post-construction monitoring calculations, construction observations and report preparation.

Relevant Experience

Aptim Environmental & Infrastructure, LLC, Project Manager; December 2013–Present

[Project Manager; Lido Key Beach Repair Project, City of Sarasota, FL](#)

Assisted in the permit coordination and design of the Lido Key beach repair project. Performed volume calculations to estimate project volume and helped develop the project cost estimate and final project plans and specifications. Conducted pay volume calculations. Provided during construction coordination with field observers and contractors. Provide services related to general coastal consulting and coordination as requested by City staff. Assist with the Florida Department of Environmental Protection (FDEP) Local Government Funding Request (LGFR) and with State and Federal cost reimbursements.

[Project Manager; Sarasota County, 2025 South Siesta Key Beach Nourishment Project, Year 2 Post-Construction Monitoring Permitting, Sarasota County, FL](#)

APTIM is providing professional services supporting Sarasota County on their beach nourishment project including providing Year 2 post-construction physical monitoring services of a topographic and bathymetric survey and post-construction monitoring report, providing limited hardbottom monitoring of hardbottom edge mapping and permanent transect monitoring with a monitoring report deliverable and assisting the County in submitting a permit modification request to FDEP.

[Project Manager; Englewood Seawall Design, Sarasota County, FL](#)

Managed the planning, design, permit and construction of the Bayshore Drive Seawall Project and Casa Rio Seawall improvements to repair the damages from Hurricane Ian. Assisted in the preparation of technical specifications to provide written details regarding the seawall design, administrative matters, material specifications, and execution requirements. Documents were suitable for bidding the work and project is currently under construction.

Project Manager; Alameda Isles – Buchan Airport Canal Dredging, Sarasota County, FL

Assisting Sarasota County in planning, design and permitting of the Alameda Isles – Buchan Airport Canal Dredging project to repair the damages from Hurricane Ian. Provided professional services for agency pre-application meeting, collection, and sediment analysis, engineering design, and currently completing the permitting coordination.

Project Manager; New Pass Inlet Management Study Update, City of Sarasota, FL

Provided coordination and assistance in the development of the New Pass Inlet Management Study. Sediment budget was updated to evaluate strategies of inlet sediment management with the objective of balancing the sediment budget between the inlet and adjacent beaches. The study evaluated options and provided recommendations for the ongoing management of New Pass and the adjacent beaches within its area of influence and considered the collective input of the appropriate federal, state, and local governmental agencies.

Numerical Modeler; Robinson Preserve Modeling Study, Manatee County, FL

Assisted in the development of the Delft-3D model to assess circulation and residence (flushing) time for the existing conditions and proposed design and sediment mobility analysis in the flushing channels.

Numerical Modeler, Blind Pass Inlet Management Study, Lee County, FL

Assisted in the development of the Blind Pass Inlet Management Study. This study is going to provide a better understanding of the coastal dynamics of the Blind Pass inlet system and adjacent beaches using available meteorological data and numerical modeling. The primary focus of this inlet management study was to develop an updated sediment budget for the inlet and to evaluate strategies of inlet sediment management with the objective of balancing the sediment budget between the inlet and adjacent beaches.

Numerical Modeler, Beach Preservation Plan, Indian River County, FL

Reviewed Delft-3D numerical modeling report developed to evaluate the performance of the project alternatives and to assess their benefits/impacts of the project.

Numerical Modeler/Coastal Engineer; Southern Palm Beach Island EIS, Palm Beach County, FL

Coastal engineer who assisted with the numerical modeling using the cross-shore sediment transport model, SBEACH and Delft-3D to evaluate potential impacts of fill and structural alternatives included in the EIS study.

Project Manager; Delray Beach Coastal Program, City of Delray Beach, FL

Assisted by providing on-site construction observation and project coordination and serves as the City's liaison in communications and coordination for all City projects. Assisted in the assessment of the City's vulnerability to future seasonal flooding and identified the potential options to protect its infrastructure and citizen's property. Reviewed water level data analyzed return periods of extreme events and considered sea level rise guidance to determine water level projections for the City's requested 30-year and 75-year planning horizons. Assisting with replacing or repairing various City owned/maintained seawalls, which APTIM identified. Continue to assist with their coastal program, including state and federal permitting agency coordination, quarterly reporting, LGFR, physical monitoring, and subsequent physical monitoring report to FDEP, blue flag award program support, pre-bidding support in their ongoing coordination with the USACE for their storm repair project currently under construction.



25 YEARS
EXPERIENCE

Education

- MS, Environmental Studies, Florida International University
- BS, Environmental Studies, Stockton University

Registrations/Certifications

- GIS Professional (GISP), GIS Certification Institute, 2011
- Certificate of Geographic Information Systems, 2003
- Certified Florida Master Naturalist Geographic Information Systems

Skills & Experience

- More than 18 years of Ocean/Coastal GIS in Florida
- Coauthored 7 scientific publications dealing with remote sensing of benthic habitats and geomorphology

HEATHER VOLLMER, MS, GISP

GIS Analyst | APTIM

Professional Summary

Heather Vollmer is a GIS professional with 25 years of experience in GIS data mining, engineering and maintenance, remote sensing, spatial analysis, supporting documentation and web app development. She is heavily involved in innovating the application of geospatial technologies to further advance the understanding of coastal management. Since joining APTIM in 2006, Ms. Vollmer has been charged with providing geospatial technological support to streamline and improve client projects and deliverables. She has provided support on several Louisiana projects.

Relevant Experience

Aptim Environmental & Infrastructure, LLC, Geospatial Systems Senior Specialist I; October 2006–Present GIS Analyst; City of West Miami Vulnerability Assessment, West Miami, FL

Collected, analyzed, and interpreted data, conceptualized adaptation strategies, and completed assessment report. Responsible for all GIS spatial analysis, data creation, maintenance, and QA/QC, supporting report documentation (figures, tables, technical write-ups).

GIS Analyst; Town of Juno Beach Vulnerability Assessment

Responsible for all GIS spatial analysis, data creation, maintenance, and QA/QC, supporting report documentation (figures, tables, technical write-ups).

GIS Analyst; Escambia County Vulnerability Assessment, Escambia County, FL

Ms. Vollmer was responsible for all GIS spatial analysis, data creation, maintenance, and QA/QC, supporting report documentation (figures, tables, technical write-ups).

GIS Analyst; South Florida Military Installation Multi-Hazard Resilience Review

Ms. Vollmer collected data for four local military installations across three counties via continuous outreach and research. Analyzed results and produced summary graphics and trends for exposure, sensitivity, adaptive capacity, and risk analyses.

GIS Analyst; Atlas of Disaster

Assisted on analyzing critical infrastructure for hazard vulnerabilities and report documentation and maps. Our new report “Atlas of Disaster” – at over 650 pages with over 300 maps – provides a blueprint for equitable climate adaptation planning, offers new funding sources to invest in resilient infrastructure,

and provides a framework for better decision-making for government, the private sector, philanthropy, and finance.

GIS Analyst; Town of Longboat Key Sea Level Rise Vulnerability Assessment, Town of Longboat Key, FL
GIS Analyst was tasked with data mining, creating sea level vulnerability atlases and maps, and analysis of sea level rise impacts to assess potential impacts from sea level rise and recurrent flooding in the Town of Longboat Key.

GIS Analyst; Vulnerability Assessments & Adaptation Plans (Mostly Resilient Florida Funded)
Estero, Longboat Key, Captiva, Escambia County, Delray Beach, Juno Beach, North Palm Beach. Ms. Vollmer provided geospatial analysis using python scripts to assess current and future hazard impacts, technical writeups, supporting maps, and public outreach tools such as storymaps.

GIS Analyst; Database Development and Management for ASBPA
Working with ASBPA, APTIM designed a comprehensive web app that allows the public to explore the United States historical beach nourishment efforts. The database houses year of nourishment, number of projects, number of nourishment events, date ranges, total length and costs. Ms. Vollmer oversaw the GIS database development as well as the UX design.

GIS Analyst, APTIM Enterprise, Data Structure and Management
Ms. Vollmer is APTIM's database librarian. She reformats and performs all QA/QC for database uploads as well as data mining for additional beneficial database information. She researches new technology and suggests future database management direction. She provides all in-house training and assists with the development of user documentation.

GIS Analyst; BOEM IDIQ, Task Order 1, Geophysical and Geological Data Acquisition and Analysis in Onslow Bay Offshore North Carolina and Long Bay Offshore North Carolina and South Carolina
Developed a data management plan and QA/QC procedures for review of MMIS deliverables. Currently working on implementing MMIS formatting procedures.

GIS Analyst; BOEM IDIQ, Task Order 3, Geophysical and Geological Data Acquisition and Analysis on the Atlantic Outer Continental Shelf of Florida
Ms. Vollmer is tasked with overview of MMIS deliverable formatting and QA/QC.

GIS Analyst; BOEM IDIQ, Task Order 8, Geophysical and Geological Data Acquisitions and Analyses on the Mid-Atlantic Continental Shelf of Florida
Ms. Vollmer was part of the team that worked on analyzing historical MMIS data along the Mid-Atlantic Continental Shelf to determine patterns of historical knowledge, identify potential resources.

GIS Analyst; Delray Beach Coastal Program Delray Beach, FL
As the GIS Analyst, Ms. Vollmer provides local government funding request analysis, spatial analysis of environmental impacts such as hardbottom impacts, field support for environmental surveys (transect planning, hardbottom interpretation, etc.), post field data processing (GIS formatting, QA/QC, metadata development), database creation and maintenance, maps, and permit drawings.



25 YEARS
EXPERIENCE

Education

- BA, Geography, San Jose State University

Skills & Experience

- Over 20 years of experience as a GIS Analyst
- Extensive software experience

MICHAEL BARBOUR

GIS Analyst | APTIM

Professional Summary

Mr. Barbour is a Senior GIS Analyst with over 25 years of experience creating and developing GIS applications and database design. Responsibilities include providing support to client projects and office staff as a GIS Analyst. He is also responsible for the design and creation of unique GIS and database applications using off-the-shelf software packages tailored to meet specific client needs. Mr. Barbour is proficient in IBM PC and Macintosh hardware systems. Software languages include Visual Basic, HTML, Lingo, Avenue, Java Script, Arcade, and Python. Software application experience includes Atlas Pro, Vista Pro, as well as ESRI's ArcView 3.x, ArcGIS, ArcPro, Spatial Analyst, 3D Analyst, and Street Analyst.

Relevant Experience

Aptim Environmental & Infrastructure, LLC, Senior GIS Analyst I; May 2002–Present

[GIS/Database Manager & Developer, GIS Mapping Project, Defense Fuel Support Point \(DFSP\), Point Loma, San Diego and Ozol, Martinez, California](#)

Develop and maintain a fully functioning Geographic Information System (GIS) for the Defense Energy Support Center's (DESC's) environmental program at the Defense Fuel Support Point (DFSP) Point Loma and Ozol Fuel Farms, San Diego and Martinez (respectively), California. Development centers on data acquisition, data assessment, consolidation of the disparate spatial and tabular data received from various public and private sector organizations, in electronic and hardcopy formats, GIS testing and troubleshooting, and

continued maintenance of the GIS once complete.

[GIS/Database Manager & Developer, Fresh Kills Landfill Post-Closure Monitoring and Maintenance, City of New York Department of Sanitation, Bureau of Waste Disposal, Staten Island, New York](#)

Working with representatives of the City of New York Department of Sanitation (DSNY) Bureau of Waste Disposal (BWD), a paperless electronic data collection and maintenance application was developed for the quarterly "Post-Closure Monitoring and Maintenance Operations and Inspection Report, Sections 2/8 and 3/4, of the Fresh Kills Landfill", Staten Island, New York. An inspection team of four inspectors and an assessment engineer (assessor) perform in-field inspections of the final cover and all drainage areas for landfill sections 2/8 and 3/4. Specific parameters encompass a survey of the final cover in each landfill area along predetermined paths and include inspection of all LFG duct vents and LFG extraction wells to determine if these features are intact, and free of damage. Inspectors also label the LFG duct vents or extraction wells that are not labeled. In addition, each drainage swale, slotted inlet, outlet pipe, down chute and basin is observed during the inspection of the drainage features. If a problem is noted then each condition encountered is GPS'd and assigned a unique ID,

attribute information is recorded (description, size and extent) for the condition, and a photo is taken. Once the inspections are complete all information is reviewed by the assessor who in turn summarizes the conditions, and generates an "Inspection Tracking Form," as well as the quarterly "Monitoring and Maintenance Report."

A mobile GIS application was designed to facilitate field data collection, providing more accurate and up-to-date data for inclusion in the enterprise GIS. Conversely, enterprise GIS information was made available to field crews and geographic and tabular data once collected on paper forms and sketched on paper maps is now collected electronically and GPS with 2-5-meter accuracy. Post-closure monitoring and maintenance inspection field data is acquired using a customized Mobile Geographic Information System (GIS) application designed using ESRI's ArcPad software and deployed on Trimble's GeoXM GPS/data collection units. A custom application was also designed for the enterprise GIS using ESRI's ArcGIS 9 software. The ArcGIS application interface is designed to dynamically access all post-closure monitoring and maintenance inspection field data, and the corresponding attribute data collected for each condition, as well as any additional vector (topographic data, etc.) and raster data (geo-referenced aerial photographs or condition photos) that is provided.

[Motorola Superfund Site](#)

Provide database design and data management support, as well as GIS and cartographic support for the Motorola 52nd Street Superfund Site. Responsibilities include consolidation of disparate spatial and tabular data received from various public and private sector organizations, in electronic and hardcopy formats. Responsible for designing a data management system for incorporation of both historical and current data, while allowing for a direct interface with the GIS in order to generate maps for analysis and visualization. The data management system and GIS are fully operational, and each is used to generate reports and maps in support of the scientists and engineers conducting the site investigation and clean-up.

[California Department of Transportation Storm Drain Inventory](#)

Developed methodological approach and technical design for Caltrans "Storm Drain System Inventory (SDSI)" for Ventura County California, and the Tahoe Basin. Project parameters encompassed collection, identification, and description (size, type, etc.) of major storm drain discharge points, outfalls, inlets, undeveloped lands, Caltrans facilities, and respective tributary drainage areas (TDA's) within the Caltrans Right-of-Way. Data was collected using a Microsoft Access database with Trimble GPS receivers and digital cameras. Subsequently all collected data (features and corresponding attributes) from the SDSI was incorporated into a customized Geographic Information System (GIS) application. The custom application was developed using ESRI's ArcView 3.2a GIS software. The application interface was designed to dynamically access the feature types, and the corresponding attribute data collected for each feature, as well as additional vector and raster data. The feature attribute data was stored in the Microsoft Access database, which served as the backend data source for the ArcView application and accessed through open database connectivity (ODBC).



18 YEARS
EXPERIENCE

Education

- Ph.D, Geology, Florida State University
- MS, Geology / Geochronology, McMaster University
- BS, Geology, McMaster University BS,

Registrations/Certifications

- Professional Geologist, New York (#000703)
- BOEM Protected Species Observer

Skills & Experience

- 18 years of experience in geotechnical data collection and analysis
- Data management experience having worked on several statewide geotechnical
- and geophysical databases for FL, LA, and TX

BETH FORREST, PHD, PG

Data Analyst | APTIM

Professional Summary

Beth Forrest, PhD, PG, has 18 years of experience performing geotechnical studies and borrow area development in support of coastal restoration projects throughout the Gulf coast and eastern United States including Texas, Louisiana, Alabama, Florida, North Carolina, Delaware, and New York. She has over 16 years of project and client management experience with clients including the Coastal Protection and Restoration Authority (CPRA) and the Bureau of Ocean Energy Management (BOEM). She has extensive experience with sediment resource identification, delineation and quantification in support of regional sediment management programs, particularly in support of CPRA's LASMP program. Prior to working at APTIM, Dr. Forrest worked for the Florida Department of Environmental Protection.

Relevant Experience

Aptim Environmental & Infrastructure, LLC | Geology Submarket Lead | May 2007–Present

[Geotechnical Lead; LASMP Western Louisiana Region 2a Survey](#)

Provided desktop study support to the Water Institute, oversaw processing of 35 vibracores and sediment samples as well as geotechnical deliverable development for Region 2a.

[Project Manager; Bay County Reconnaissance Sand Search Investigation, Bay County, FL](#)

Oversaw reconnaissance survey planning, data collection and data processing.

[Project Geologist, Mexico Beach Restoration Project, Bay County, FL, 2020](#)

In 2018, the Bay County Tourist Development Council contracted APTIM to provide preliminary reconnaissance sand search services to identify potential nearby offshore sand sources for use in a full-scale nourishment of Mexico Beach. APTIM conducted a

preliminary reconnaissance sand search (Phase I) utilizing jet probes to refine potential sand resources. APTIM analyzed the jet probe sample data and identified one potential sand resource investigation area. This area was targeted during the 2019 Phase II and III geophysical (magnetometer, sub-bottom profiling, sidescan sonar and bathymetric survey) and geotechnical (vibracore) investigations. Provided assistance with technical report development and has been providing permitting assistance.

[Project Geologist; Redfish Pass Sand Search, Lee County, FL](#)

Oversaw the compilation of data related to past investigation areas, previously identified sand sources, and developed borrow areas as well as previously collected geophysical and geotechnical data. Helped develop a survey plan that made the most efficient use of existing data and avoided collecting duplicate data. Oversaw the analysis of core borings collected in support of this project. Developed and designed a borrow area containing over 600,000 cy of suitable sediment for beach placement.

[Geologist; Collier County Emergency Sand Source Investigation: Phase III Geophysical and Geotechnical Investigations, Collier County, FL](#)

Responsible for compiling and analyzing historic/existing geophysical and geotechnical data to develop an understanding of the offshore regional geomorphology, using this information to identify geomorphic features most likely to contain compatible sediment resources for the specific project. These features were then targeted during reconnaissance and design level geophysical and vibracore surveys. Also analyzed vibracores collected in support of this project. Responsible for compiling final deliverables which included a final report as well as geotechnical and geophysical appendices presenting the results of the seismic, bathymetric, magnetometer, sidescan sonar and vibracore survey efforts.

[Project Geologist/Data Manager; System Wide Assessment and Monitoring Program \(SWAMP\) Hydrographic and Geophysical Survey Phases I, II, III, IV, LA](#)

Oversaw client coordination and development of deliverables. Assisted with survey planning, including poling. Oversaw development of final deliverables, including LASARD formatted spatial deliverables.

[Project Geologist; Borrow Area Management and Monitoring \(BAMM\) Program](#)

Oversaw the literature search, which was conducted to identify existing borrow areas. Helped plan survey lines along which bathymetric and geophysical data were collected. Assisted with infilling calculations. Selected the locations of the push cores to ground truth the geophysical data and oversaw the geologists who analyzed the push cores. Worked with a team to select borrow areas for hypoxia monitoring. Oversaw the evaluation of the data collected over the course of the program and developed recommendations. Oversaw the production of final deliverables including a final technical report and data appendices.

[Data Manager; BOEM IDIQ Task Order 1, Geophysical and Geological Data Acquisition and Analysis in Onslow Bay Offshore North Carolina and Long Bay Offshore North Carolina and South Carolina](#)

Developed data management plan, implemented MMIS formatting and developed QA/QC procedures for review of MMIS deliverables, oversaw processing of 60 cores, including logging, photographing and sampling, oversaw analysis of the core samples including mechanical sieve analysis and carbonate testing.

[Geotechnical Lead; BOEM IDIQ, Task Order 3, Geophysical and Geological Data Acquisition and Analysis on the Atlantic Outer Continental Shelf of Florida](#)

Oversaw processing of 60 cores, including logging, photographing and sampling, oversaw analysis of the core samples including mechanical sieve analysis and carbonate testing, oversaw production of final geotechnical deliverables.

[Project Geologist; BOEM Atlantic Sand Assessment Project \(ASAP\) Geophysical and Geological Data Acquisition, Inventory of Potential Beach Nourishment and Coastal Restoration Sand Sources on the Atlantic Outer Continental Shelf](#)

Oversaw processing of 45 cores collected in Delaware, Florida, Georgia, Maryland, Massachusetts, New Jersey, New York, North and South Carolina, Rhode Island and Virginia. This included logging, photographing and sampling. Oversaw analysis of the core samples including mechanical sieve analysis and carbonate testing of over 570 sediment samples.

[Geotechnical Lead; Reconnaissance Offshore Geophysical and Geotechnical Surveys for Region 1 \(state waters\) and the Sabine and Heald Banks OCS, Texas GLO Region 1](#)

Oversaw processing of 130 cores, including logging, photographing and sampling, oversaw analysis of the core samples including mechanical sieve analysis. Oversaw production of final geotechnical deliverables.



9 YEARS
EXPERIENCE

Education

- PhD, Coastal Engineer, University of Florida
- MS, Coastal Engineering, Delft University of Technology (TU Delft)
- BS, Civil Engineering University of Moratuwa

Skills & Experience

- Expertise in hydrodynamic, morphodynamic and water quality modeling and analysis
- Expert proficiency in numerical modeling analysis
- Expert proficiency in numerical modeling with XBeach.
- Expert proficiency in programming with Python and ArcGIS
- Proficiency in numerical modeling with Delft3D and SWASH

Pinellas County, FL

Detailed modeling of coastal hydrodynamics and morphodynamics to understand the processes and provide optimal alternatives to improve beach performance at Sunset Beach.

Numerical Modeler; New Pass Inlet Management Plan Update, FL

Provided review of the inlet management study.

HITHAISHI HEWAGEEGANA, PHD

Numerical Modeler | APTIM

Professional Summary

Hithaishi Hewageegana, PhD is a senior numerical modeler focused on hydrodynamics and morphodynamics in nearshore environments. He has gained experience in applying advanced numerical models to solve nearshore problems. He is also a competent programmer in MATLAB, FORTRAN, and Python and skilled in ArcGIS and programming using Arcpy modules. He has worked in various coastal modeling projects from sediment transport to water quality, from idealized conditions to multiyear hindcasts, and from 1D models to hundreds of square km coastal and estuarine systems.

Relevant Experience

Aptim Environmental & Infrastructure, LLC | Senior Numerical Modeler | March 2023–Present

[Numerical Modeler; Terrebone Parish Flood Elevation Review, LA](#)

Performing data review and flood modeling in support of the parish. Anticipated services: coastal engineering with emphasis on numerical modeling.

[Numerical Modeler; Indian River County, Florida Modeling Memorandum Sebastian Inlet TAC, FL](#)

Performed quality control review of the IRC numerical modeling and implemented a series of modeling improvements, assisted the project manager in finalizing the deliverables to the client.

[Numerical Modeler; Pinellas County Sand Key Structural Evaluation, Pinellas County, FL](#)

Performed littoral budget development and analyzed the sediment transport patterns in the project area to support analysis of the implementation of possible coastal structures.

[Numerical Modeler; Sunset Beach Groin Evaluation Project,](#)



4 YEARS
EXPERIENCE

Education

- PhD, Environmental Science, University of Rhode Island

Registrations/Certifications

- Hydrology, Post-Baccalaureate

Skills & Experience

- SWMM5.1 and PCSWMM
- ArcGIS 10.7 and Erdas Imagen 9.1
- SOIL and Water Assessment Tool (SWAT)
- MODFLOW, HECRAS, MIKESHEE, FEEFLOW
- MATLAB and R LANGUAGE

KHURSHID JAHAN, PHD

H&H Modeler | APTIM

Professional Summary

Experienced professional with a strong academic background in environmental science, hydrology, hydrogeology, environmental impact assessment, water resources management, and development and water quality (arsenic, salinity, nitrate, phosphate and PFAS). Interests in Stormwater and TMDL, Groundwater and watershed modeling, green infrastructure (GI), Water resource management, greenhouse gas emission, renewable energy, and climate change policy issues. Experience with RCRA, CERCLA, and NEPA.

Relevant Experience

Aptim Environmental & Infrastructure, LLC, Director of Flood Control; June 2026–Present

Applied Ecology, Inc., Jupiter, FL; Senior Water Resource Specialist, June 2023–June 2026

Analyze the vulnerability of the tidal estuaries zone in South Florida, Climate change and its impact analysis for Lagoon areas and report preparation. Environmental Impact assessment analysis for coastal region and report preparation.

Project Manager; Bayou Chene Flood Control Structure, St. Mary Parish, LA – St. Mary Levee District Bayou Chene Flood Control

Structure, St. Mary Parish, LA – St. Mary Levee District

Managed the design and construction aspects of this project in addition to leading interagency coordination and communications with municipalities, parish representatives, and the state, as well as the SMLD to ensure all stakeholders were involved in the design and construction. She also ensures all deliverables are produced in a timely and efficient manner.

Project Manager; Franklin Canal Flood Control Structure, Pump Station and Levee Improvements, Design and Administration, St. Mary Parish, LA – St. Mary Levee District and Coastal Protection & Restoration Authority

Managed the design and construction aspects of this project for SMLD as well as coordinated funding sources for capital outlay through CPRA, CDBG, and parish sources. Managed design and construction administration team, from grant administration, through design, bidding and negotiating, and through construction.

Project Manager; St. Mary Levee District Administrative Contract, Morgan City, LA – St. Mary Levee District

Since its inception in 2007, provided consulting services for SMLD including capital outlay requests, project worksheets, and lead the planning effort for SMLD Master Plan in 2012, 2016, and 2024.



2 YEARS
EXPERIENCE

Education

- PhD, Civil and Environmental Engineering, University of Delaware
- MS, Civil Engineering, University of Patras
- BS, Civil Engineering, University of Patras

Software Capabilities

- FUNWAVE
- NHWAVE
- XBeach
- Delft3D
- SFINCS
- ANSYS
- HEC-RAS
- ArcGIS Pro, ArcMap, Python for ArcGIS
- AutoCAD
- MATLAB, Python, Fortran 90/95

MARIA FOTIA, PHD

Conceptual Design | APTIM

Professional Summary

Maria Fotia is a coastal engineering specializing in numerical modeling and has experience in running numerical modeling programs for projects dealing with different coastal engineering scenarios.

Relevant Experience

Aptim Environmental & Infrastructure, LLC | Coastal Engineer; December 2025–Present

[Coastal Engineer; 2025 Captiva Island Renourishment Project, Lee County, FL](#)

Performed project performance, dune and dune vegetation, environmental monitoring, borrow area survey, and project geotechnical data analysis.

Stantec | Coastal Engineering Specialist; August 2023 to November 2025

[Wilmington Harbor - Navigations Improvement Project, NC](#)

3 channel deepening scenarios / bathymetries (Matlab, ArcGIS Pro) Nearshore hydrodynamic for Annual and Storm Events (Delft3D)

[HDOT – Bridge Review, HI](#)

Independent QA/QC based on FHWA requirements. Review of hydrologic analyses (HEC-RAS) and scour analysis (per HEC-18). Review of Phase 2 and Phase 3 reports

[American Samoa – Bridge Scour Analysis, AS](#)

Hydraulic and scour Analysis of coastal and riverine bridges (Xbeach, HEC-RAS, HEC-18). Phase 2 and Phase 4 (Plan of Action) reports

[FEMA Open Pacific Coast \(OPC\), CA](#)

Review of Matlab Toolbox for Deepwater equivalents significant wave height. Replicating runup and water level values in the Flood Insurance Study (FIS)

[Amtrak Maintenance Yard – Wilmington, DE](#)

Sea level rise and stream flow predictions uncertainty. Captain's Cove Waste Water Treatment Plant. Chincoteague Bay tidal flushing rate and turn-around time

[Captain's Cove Wastewater Treatment Plant](#)

Chincoteague Bay tidal flushing rate and turn-around time.



1 YEAR
EXPERIENCE

Education

- BA Quantitative Economics and Econometrics, Connecticut College, Dec. 2024

Skills & Experience

- Demonstrated leadership skills
- Efficiency minded
- Strong analytical, strategic thinking, & problem-solving skills
- Public and Community Outreach
- Marketing and Promotion for Vulnerability Assessments
- Research proficiency

NATE PILSON

Data Management | APTIM

Professional Summary

Mr. Nate Pilson brings a unique blend of technical, analytic skills along with a specialization in public outreach, marketing, and promoting community-input for Vulnerability Assessments. In terms of utilizing his quantitative economics training, Mr. Pilson transcribed a Disaster Debris Management Plan for the City of Oakland and is currently developing a comprehensive Adaptation Plan for the City of Pompano Beach. Drawing upon his experience in fostering and maintaining client relationships, he organized public meetings and developed promotional materials for The Village of Estero Vulnerability Assessment and Elevation Certificate Program, the City of Homestead Vulnerability Assessment, and the City of Deerfield Beach's Sustainability Roadmap.

Relevant Experience

Aptim Environmental & Infrastructure, LLC, Business Analyst; April 2025–Present

Consultant and Public Outreach Specialist, City of Pompano Beach Adaptation Plan

Spearheading Adaptation Plan development for the City of Pompano Beach. Utilizing County Local Mitigation Strategy, the City's Vulnerability Assessment, and other resilience resources to create Adaptation Plan. Coordinated and created marketing materials for public outreach meetings and community events via social media, newspaper, and City advertising.

Oakland Disaster Debris Management Plan

Developed and constructed comprehensive Disaster Debris Management Plan. Every conceivable line of communication, protocol, debris class, and detail seamlessly integrated into user-friendly, digestible document. Plan designed based on previous natural disasters in Oakland and refined to adapt to future climate-related events.

Research and Coordination Specialist; Deerfield Beach Sustainability Roadmap

Supported the development of energy-efficient solutions in the City of Deerfield Beach. Researched innovative possibilities regarding sustainable forms of commuting and conservation of energy within households fitting parameters of local, state, and federal regulations. Successfully designed workshops with crafted marketing materials to relay information to residents as well as city employees



10 YEARS

EXPERIENCE

Education

- MS, Ocean Engineering, University of Miami, Coral Gables, FL
- BS, Civil Engineering -minor Environmental Engineering, Carnegie Mellon University, Pittsburgh, PA

Registrations/Certifications

- Professional Engineer, Civil, Florida, License No. 98529, Active

Skills & Experience

- Management, permitting, design and construction oversight of beach nourishment projects
- Experience with FEMA Public Assistance
- MIKE21, MATLAB, AutoCAD

JACOB RICE, PE

Conceptual Design | APTIM

Professional Summary

Jacob Rice is a professional engineer with experience in the management of beach renourishment, beach strategy, long-term shoreline stabilization and resiliency projects. He additionally has experience in the USACE planning process, design, permitting – applications through issue, client coordination, bidding, construction administration, and hurricane modeling and coastal design analysis for potential storm surge.

Relevant Experience

Aptim Environmental & Infrastructure, LLC | Senior Coastal Engineer | June 2024–Present

[Engineer of Record; Pinellas County Beach Restoration Project – Design and Construction Services; Pinellas County, FL](#)

Responsible for beach renourishment, beach management, and shoreline stabilization of County's shoreline. Engineer of Record for the design and construction of a full-scale dredging emergency beach restoration project, further exacerbated due to damage caused by Hurricanes Helene and Milton, at an expedited rate to fulfill emergency permitting conditions. Assisted in acquiring emergency USACE construction permits and permits from FDEP. Assisted the County in compiling construction specification, construction plans, providing bid assistance, and oversight of construction. Oversaw construction activities and observations for the Pass-A-Grille Beach Renourishment dredging project, including verifying contractor-submitted volume reports.

[Broward County, Beach Program Manager; Broward County, FL](#)

Managed long-term beach strategy and shoreline stabilization and coastal resiliency of Broward County shoreline. Oversaw and coordinated with USACE on construction of their FCCE beach renourishment project for the Mizell-Eula State Park, Hollywood, Hallandale, and Dania beaches. Coordinated with FDEP and USACE on beach project design and permitting. Coordinated with local governments and constituents on project updates.

[Stuart Causeway Boat Ramp Improvements, Martin County, FL](#)

Responsible for environmental permitting and design for the replacement of a dock and boat ramp, including the addition of a sand launch in the project area. Responsible for overseeing engineering and design calculations to ensure proper design requirements are safely met. The project includes performing construction support from bid assistance to construction observation.

[96th Street Construction Access Bulkhead, Martin County, FL](#)

Responsible for overseeing construction observations and providing oversight for the construction of a bulkhead, fendering system, access ramp, and the dredging of a berthing basin. Ensuring construction meets the plan specifications, maintains compliance with regulatory standards, and document construction activities. Responsible for the submittals sent to the County via their contractor.



19 YEARS
EXPERIENCE

Education

- BA, Political Science, University of California, San Diego

Registrations/Certifications

- Certified Floodplain Manager, No. 39052, Active

Skills & Experience

- Management, permitting, design, and construction oversight of
- Managing multi-million-dollar projects
- Managing large groups of design teams

NICOLE BURANZON-ODELL, CFM

Floodplain Manager | APTIM

Professional Summary

With nearly two decades of leadership in engineering and construction program management, Ms. Nicole Buranzon Odell brings deep technical and strategic expertise to her roles as APTIM's Market Sector Director of Flood Control, Louisiana Regional Director, and Senior Project Manager. She has successfully delivered more than \$500 million in capital program value, including the landmark Bayou Chene Flood Control Project, the largest floodgate of its kind worldwide. Known for her collaborative approach, Ms. Buranzon Odell excels in navigating complex local and state agency environments, ensuring stakeholders are fully aligned from concept through construction.

Relevant Experience

Aptim Environmental & Infrastructure, LLC, Director of Flood Control; July 2006–Present

Program and Project Manager; Houma Navigation Canal Lock Complex, Terrebonne Parish, LA

Manages the funding, design, bidding, and construction aspects of this project. Also performed interagency coordination and communications with parish representatives, the state of Louisiana, as well as TLCD to ensure all stakeholders were involved in the design and construction.

Project Manager; Bayou Chene Flood Control Structure, St. Mary Parish, LA – St. Mary Levee District Bayou Chene Flood Control Structure, St. Mary Parish, LA – St. Mary Levee District

Managed the design and construction aspects of this project in addition to leading interagency coordination and communications with municipalities, parish representatives, and the state, as well as the SMLD to ensure all stakeholders were involved in the design and construction. She also ensures all deliverables are produced in a timely and efficient manner.

Project Manager; Franklin Canal Flood Control Structure, Pump Station and Levee Improvements, Design and Administration, St. Mary Parish, LA – St. Mary Levee District and Coastal Protection & Restoration Authority

Managed the design and construction aspects of this project for SMLD as well as coordinated funding sources for capital outlay through CPRA, CDBG, and parish sources. Managed design and construction administration team, from grant administration, through design, bidding and negotiating, and through construction.

Project Manager; St. Mary Levee District Administrative Contract, Morgan City, LA – St. Mary Levee District

Since its inception in 2007, provided consulting services for SMLD including capital outlay requests, project worksheets, and lead the planning effort for SMLD Master Plan in 2012, 2016, and 2024.



14 YEARS
EXPERIENCE

Education

- MS, Marine Biology, Nova Southeastern University
- BS, Environmental Science, Fordham University

Registrations/Certifications

- Diving Safety Officer
- PADI OW Instructor
- AAUS Scientific Diver
- Enriched Air Nitrox Diver
- SEAFAN Bleach Watch
- Friends of our Florida Reefs Member
- FSBPA Member

Skills & Experience

- Project Management
- Environmental Assessments
- Data Analysis
- Environmental Permitting
- NEPA Documentation

KATY BROWN, MS

Marine Habitat Characterization | APTIM

Professional Summary

Katy Brown serves as the Marine Biology Lead and has been with APTIM for over 12 years. She has experience in biological and environmental science in temperate and tropical environments. Her experience includes marine habitat characterization of natural and artificial reef communities, submerged aquatic vegetation surveys, coastal wetland biological surveys, and protected species surveys. She assists with preparation of environmental documents, including NEPA documents, required to obtain state and federal permits for coastal projects. She is a project manager, coordinates with resource agencies, leads field survey operations, and analyzes and prepares data for final reports and deliverables.

Relevant Experience

Aptim Environmental & Infrastructure, LLC, Senior Marine Biologist; May 2013–Present

Senior Marine Biologist; Collier County Beach Nourishment Project, Collier County, FL

Conducted the biological hardbottom monitoring for pre-construction and two post-construction events for Collier County. Ms. Brown led the field crew, managed the data, conducted the statistical analyses, and developed the final reports for submittal to the County and FDEP as required by the permits and the biological monitoring plan.

Senior Marine Biologist; Collier Boulevard Boating Park, 951 Floating Dock Project, Collier County, FL

Led the natural resources survey to delineate and characterize the mangrove and benthic resources located within the project area in order to provide updated biological data for the design and permitting phases of this

project. Ms. Brown also assisted in obtaining an Environmental Resource Permit for this project.

Senior Marine Biologist; Greer Island Spit Management Plan, Town of Longboat Key, FL

Led and conducted seagrass and wetland surveys in support of the design, permitting, and construction of a sand management (dredging) plan to control the spit migration at Greer Island. Ms. Brown also coordinated with FDEP to develop a seagrass monitoring plan to document any unanticipated project impacts and a dune mitigation and monitoring plan to offset unavoidable impacts to salt marsh and mangrove vegetation.

Senior Marine Biologist; Gasparilla Island Beach Nourishment Project, Lee County, FL

Ms. Brown led the biological hardbottom monitoring effort for the pre-construction and four post-construction monitoring events, which included data collection and management, project management, agency coordination, report development and submittal of all deliverables.



25 YEARS
EXPERIENCE

Education

- MS, Marine Environmental Science (emphasis on Coastal Zone Management and Marine Biology), Nova Southeastern University
- BS Biological Sciences, University of Tennessee

Skills & Experience

- Planning and implementing effective coastal field efforts.
- Data collection and reporting
- Environmental permitting and compliance
- Marine habitat characterization of natural and artificial reef communities, endangered species surveys
- Coral relocation, habitat restoration, and monitoring

ANNE SHOFFNER

Marine Habitat Characterization | APTIM

Professional Summary

Ms. Shoffner has over 25 years of experience in private industry and government providing effective leadership, program management, scientifically sound project execution, and interdisciplinary team coordination in project management, business development, environmental permitting and consulting. She is an experienced marine scientist with over two decades of professional experience working on coastal infrastructure, beach nourishment, habitat monitoring, and restoration projects.

Relevant Experience

Aptim Environmental & Infrastructure, LLC, Natural Resources Manager; December 2025–Present
[Environmental Permitting; Pelican Harbor Marina Boat Ramp Bulkhead and Fishing Pier Replacement Project; Miami, FL](#)

Lead environmental permitter for the replacement of two bulkheads and a fishing pier at a municipal marine in Miami-Dade County.

[Environmental Consultant; Coastal Protection Projects; Outer Continental Shelf](#)

Consultant on two Bureau of Ocean Energy Management (BOEM) task orders related to offshore sand resources on the Outer Continental Shelf.

[Environmental Consultant; Texas Coastal Monitoring Program; Texas Coastline](#)

Support the Texas General Land Office (GLO) in developing and funding a large-scale coastal monitoring

program to comprehensively evaluate current and future coastal restoration and protection projects.

[Environmental Permitting; Cocohatchee River Dredging, Collier County, FL](#)

Provide environmental permitting support for a dredging project to improve water conveyance and remove areas of significant shoaling and maintain navigation for residents east of US Highway 41.

GHD Services, Inc., Jupiter, FL; Natural Resources Client Relationship Manager, October 2024–December 2025

Created internal and external relationships to grow the natural resources service line in Florida by leveraging other service lines in the maritime and coastal group, transportation group, and water group. Review of RFQs and RFPs, create technical content for proposals, review draft submittals for accuracy and responsiveness, and provide feedback on completeness. Conduct in-field surveys for coastal construction projects and create quality deliverables for submittal to state and Federal regulatory agencies.

Cummins Cederberg, Inc., Jupiter, FL; Project Director, October 2019–October 2024

Business development, project estimations, preparation of technical and cost proposals, field surveys, NEPA documentation, and assisting with permitting of coastal and marine projects. Field work includes biological characterization and mapping of natural and artificial reefs, including living shorelines, coral reef, hardbottom and seagrass assessments, habitat restoration and mitigation, and biological monitoring on SCUBA and snorkeling. Worked with private and governmental clients on coastal and marine structural projects such as beach nourishment projects, marina development, port and channel dredging, jetty development and rehabilitation, submarine infrastructure (e.g., cables), bayside parks and piers, artificial reefs, and living shoreline programs.

Marine Scientist; Sawfish Bay Marine Restoration, Jupiter, Florida

Marine resource surveying and monitoring to support design, permitting and monitoring of the Town of Jupiter's initiative to restore and enhance the marine environment at Sawfish Bay Park. The Sawfish Bay Marine Restoration is a five-phase multi-year initiative to install a living shoreline, restore marine habitat, improve water quality, and improve the resilience of approximately 7,000 linear feet of shoreline.

Marine Scientist; The Bay Sarasota; Sarasota, Florida

In support of a park conservancy, conduct benthic investigations and long-term monitoring in support of a large park development that transformed upland and coastal features into a sustainable bayfront gathering place. Coastal features included a living shoreline, a mangrove bayou, and an ADA-accessible kayak launch. Performed multi-year benthic monitoring assessments to evaluate performance of upland restoration activities including water quality improvements, and dredging silts from the mangrove-lined cove (bayou).

Marine Ventures International, Inc., Stuart, FL; Project Manager, July 2017–October 2019

Business development, marketing, proposal development, cost estimations, cost monitoring/financial management, contract reviews, customer relations, and governmental coordination related to permitting and compliance. Provide marine environmental consulting, project management, and technical support for marine field operations and desktop studies supporting various clients in Florida and internationally. Project Management for artificial reef creation in Qatar and seagrass restoration in North Carolina.

Florida Inland Navigation District, Jupiter, FL; Project Manager, October 2016–June 2017

Report directly to the Executive Director; manage environmental projects; support the Administrative Assistant in preparing for the monthly board meetings. Assist the operations manager in field site inspections. Work with external consultants in updating the website, conducting a survey of active commercial waterfront properties.

Florida Department of Environmental Protection, Florida Keys National Marine Sanctuary, Environmental Specialist, Environmental Administrator, February 2000 – October 2016

Administer all State of Florida aspects of a federally protected marine sanctuary (Environmental Administrator); Led NOAA's damage assessment program in the lower region of the FKNMS. Oversee restoration, monitoring, and marine salvage activities as the Trustee's authorized representative.



11 YEARS
EXPERIENCE

Education

- BS, Construction Management, Louisiana State University

Registrations/Certifications

- Project Management Professional Certification

Skills & Experience

- Analog Real-Time Kinematic (RTK) GPS systems
- Single beam and multibeam sonar systems
- Conventional Land Survey (Total Station, Level)
- Aerial Drone

EDWIN FORTIER, PMP

Lead Cost Estimator | APTIM

Professional Summary

Edwin Fortier, PMP is a Senior Estimator and works on various projects to research, compile and present estimates for Industrial, Government and Environmental business lines.

Relevant Experience

Aptim Environmental & Infrastructure, LLC, Cost Estimator; September 2019–Present

[Advanced Work Package Planning & Field Engineer; Shintech Plaquemine VCM3 Mechanical Project, Plaquemine, LA](#)

Plan Advanced Work Packages (AWP) for all disciplines of work including structural steel, equipment, supports, and piping, using Navisworks Simulate and iConstruct to aid in speedy and efficient work with the help of the client provided 3D model. Assist all departments in developing and implementing new processes and procedures for the AWP planning and execution. Transform existing processes and procedures to adapt to the new streamlined AWP methodology. Manage AWP's for release to superintendents/foreman for execution. Manage, track, and update statuses and lookaheads for all upcoming work to identify and mitigate potential issues.

[Project Controls Manager; Westlake Chemical-CA Unit Turnaround, Plaquemines, LA](#)

Led night crew on 12-week turnaround and functioned as the project controls manager to track and forecast costs, change management, and schedule throughout the project duration.

[Project Controls; Tokai Carbon Phase 1 BOP, Addis, LA](#)

Led project team on Lump Sum and time and material (T&M) projects and responsible for project success both on safe execution and revenue. Also functioned as the project controls manager to track and forecast costs, change management, and schedule throughout the project duration.

[Project Controls Manager; Birla Carbon-Air Quality Upgrade, Centerville, LA](#)

Served as Project Controls Manager and forecasted, tracked, and maintained cost and earned value systems for \$23mm Birla Carbon Air Quality Upgrade Project.



1 YEAR
EXPERIENCE

Education

- BS Economics, University of Utah, May. 2026

Skills & Experience

- Demonstrated leadership skills
- Econometric and Financial Modeling
- Proficient in Python, R, SQL, MATLAB, ArcGIS, and Excel
- Strong analytical, strategic thinking, & problem-solving skills
- Quantitative and policy research proficiency
- Excellent oral and written communication

WILHELM ROMOSER

Cost Estimator | APTIM

Professional Summary

Mr. Romoser is an economics professional with experience translating financial risk analytics into strategy and investment decisions for resilience and remediation projects. He brings expertise in building and validating econometric models, economic policy analysis, and KPI design, and is driven to deliver clear, decision-ready economic analysis that holistically quantifies financial exposure, identifies cost drivers, and forecasts economic impacts. On this project, Mr. Romoser will support order-of-magnitude cost estimate development, cost-benefit documentation for grant applications, and funding eligibility screening across FEMA, Resilient Florida, and FDOT programs.

Relevant Experience

Aptim Environmental & Infrastructure, LLC, Economic and Climate Analyst; April 2025–Present

- ▶ Design capital-allocation analytics using cost benefit analysis, net-present value (NPV), and life-cycle cost analysis (LCCA) to guide deployment of capital for remediation; enabled portfolio prioritization under budget and risk-reduction constraints.
- ▶ Build financial modeling and risk modeling for physical climate risk using scenario analysis, sensitivity analysis, and value at risk (VaR) to quantify downside exposure and mitigation levers.
- ▶ Perform geospatial analysis for portfolio exposure analysis across companies/local governments; integrated asset/location data with hazard layers to run vulnerability assessment and hot spotting for investment decisions.
- ▶ Assess extreme climate events and produced resilience strategy, mitigation strategy, and risk reduction plan options aligned to operational resilience and implementable remediation pathways.
- ▶ Evaluate nature-based solutions (NbS) and hybrid measures via impact evaluation to compare efficacy, co-benefits, and tradeoffs vs gray infrastructure.

University of Utah, Salt Lake, City, January 2023 – December 2025

Research

Pursuing research in quantifying ecological economic impacts. Core economic courses, data/computer science courses, environmental sustainability courses, money and banking courses, and statistics courses.

B. Current and projected workload of each project team member with % time current available and planned to be allocated to this project.

APTIM has reviewed the current and projected commitments of each proposed team member and has assigned staff based on the level of involvement required by the Glades County scope. The project will be led by a focused core team with meaningfully planned availability for day-to-day delivery, supported by senior technical reviewers and subject matter specialists at key milestones. This staffing approach gives Glades County a responsive project manager, dedicated technical leads for asset refinement, sensitivity analysis, Adaptation Action Area identification, and plan development, and a bench of specialists available for constructability, cost, regulatory, environmental, and policymaker communication review.

Our team is currently managing a balanced mix of ongoing responsibilities, including routine client support and scheduled project activities. Workload levels are intentionally maintained at a sustainable pace, ensuring we have the capacity to take on new work without impacting existing commitments. With cross-functional staffing and regular resource planning, we are well-positioned to support the scope and timeline outlined in this RFP.

Our team maintains several ongoing vulnerability assessments and climate adaptation planning efforts across multiple sectors, supported by a deep bench of subject-matter experts. This structure ensures we can rapidly scale resources, integrate specialized technical expertise, and provide continuous, high-quality support as project needs evolve.

The current availability percentages below reflect each team member's estimated available capacity at the time of proposal preparation. Planned availability reflects the portion of each team member's available time proposed for the Glades County project.

Team Member - Role	Availability	
	Current	Planned
Samantha Danchuk, PE, PhD – Project Manager	40%	35%
Ivette Vidal-Vilela – Deputy Project Manager	35%	30%
Cigdem Ozkan, PE, PhD – Resilience Engineer	40%	35%
Lara Wakefield, MSC, ENV SP, WEDG – Risk Assessment	45%	35%
Heather Vollmer, MS, GISP – GIS Analyst	35%	30%
Doris Otero, PhD, CFM – Senior Coastal Engineer	30%	20%
Nicole Buranzon-Odell, CFM – Floodplain Manager	30%	20%
Khurshid Jahan, PhD.- H&H Modeler	25%	15%
Douglas Mann, PE, BC.CE – Senior Coastal Engineer	25%	15%
James Barrack, PE, CQM – Water Resource/Stormwater Management	25%	20%
Maria Fotia, PhD – Conceptual Design	35%	20%
Katy Brown, MS – Marine Habitat Characterization	30%	15%
Anne Shoffner, MS – Marine Habitat Characterization	25%	15%
Wilhelm Romoser – Cost Estimator	40%	20%
Edwin Fortier, PMP – Lead Cost Estimator	35%	15%
Michael Barbour – GIS Analyst	25%	10%
Kristin Dobbins, PE – Environmental Assessment/Remediation	25%	15%
Nate Pilson – Data Management	45%	30%



II. Proposed Management Plan



Tab II: Proposed Management Plan

A. Team Organization and Coordination

Our Organization Chart (**Figure II-1**) presents our proposed personnel. This team possesses diverse skills, including knowledge of and experience with local climate modeling, geographic information systems (GIS), risk assessment methodologies, local environmental policy insights, and public engagement.

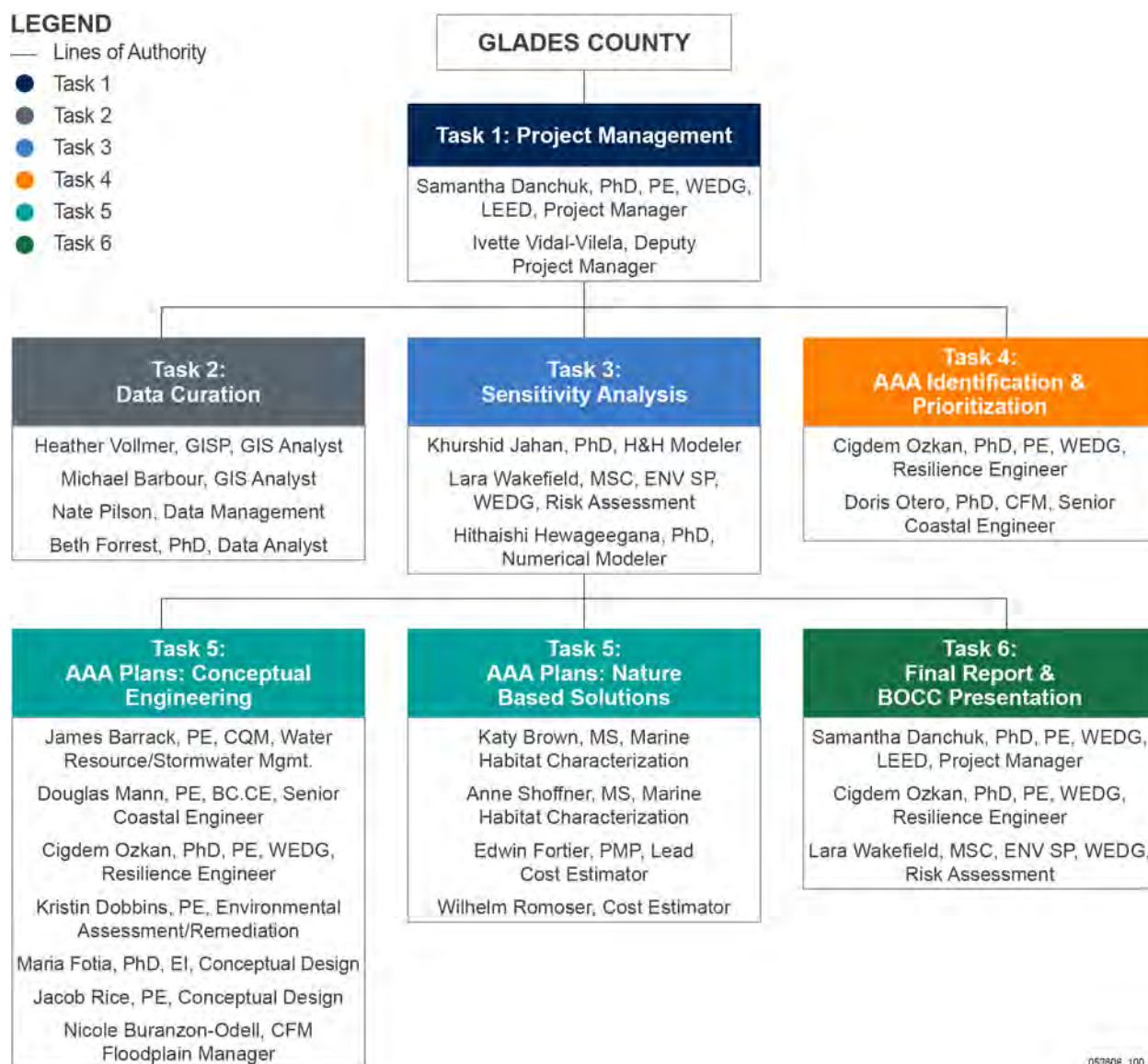


Figure II-1 Proposed Team Organization Chart

B. Meeting Facilitation and Follow Up

APTIM will treat meetings as decision-making and coordination tools rather than status reports alone. Each meeting will have a defined purpose, a clear agenda, and a documented set of outcomes. The project team will use the kickoff meeting to confirm project goals, review the RFQ task sequence, identify data sources and data owners, establish review expectations, confirm stakeholder touchpoints, and finalize the project management timeline.

Monthly progress meetings will be structured around completed work, decisions needed, upcoming deliverables, schedule risks, data gaps, and action items. Additional technical meetings will be scheduled only when needed to resolve methodology, GIS, cost, or implementation questions. This will reduce administrative burden on Glades County and CHNEP staff while maintaining a consistent rhythm of communication.

1. Team Comment Tracking and Response

At APTIM, we recognize that structured and transparent comment tracking is critical to maintaining project momentum, ensuring stakeholder alignment, and delivering high-quality, compliant deliverables. To satisfy the requirements for meeting facilitation and follow-up, our project management approach embeds meticulous tracking and response protocols into every phase of the project.

Our team comment tracking and response process is defined by proactive engagement, centralized documentation, and systematic follow-up. During working group and project team meetings, our facilitators utilize real-time feedback collection tools and structured discussion facilitation to ensure that all viewpoints are captured accurately and efficiently. By capturing input as it occurs, we minimize the risk of lost information and ensure that all stakeholders feel heard and valued.

APTIM will maintain a formal comment-response log for each draft deliverable. The log will include the reviewer's name, comment date, page/section reference, comment text, APTIM response, revision made, responsible party, and closeout status. Comments that require policy or technical direction will be flagged for discussion at the next project meeting or resolved through a targeted call with the appropriate County, CHNEP, or stakeholder representative.

This process will help the project team document how input was addressed, reduce repeated comments across deliverables, and support the RFQ requirement that meeting notes document decisions, agreed-upon outcomes, team input, and how input will be addressed.

Each comment is logged into a centralized tracking matrix, assigned a responsible team member, and monitored until a formal response or resolution is achieved and integrated into the project deliverables. This dual approach of active meeting participation and sustained online engagement ensures that no comment goes unaddressed, fostering a collaborative environment that drives the successful execution of the project.

2. Meeting Preparation Process

A structured, methodical approach to meeting preparation is foundational to our team's project management framework. We understand that well-organized, purposefully planned meetings are critical to maximizing productivity and maintaining alignment among all stakeholders involved in the Glades County Adaptation Action Planning Project. To fulfill the requirements of the meeting preparation process, our team employs a proactive, multi-step strategy that ensures every meeting is focused, inclusive, and action-oriented.

Our preparation process begins with establishing clear objectives for each meeting. Whether organizing the initial kick-off, monthly progress updates, or specialized stakeholder workshops, we align key discussion points with major project milestones and current decision-making needs.

By tying meeting agendas directly to specific deliverables or pending actions, we ensure that every session drives the project forward. Meeting agendas will be distributed one week in advance, consistent with the RFQ. Each agenda will begin with prior meeting action items, including responsible parties and target completion dates, followed by new discussion items tied to active deliverables. When a deliverable is being reviewed, the agenda will identify the specific sections, maps, tables, or decisions requiring feedback so reviewers can prepare efficiently.

APTIM will prepare meeting materials in a format that supports both technical and non-technical review. GIS maps, project area exhibits, methodology diagrams, and summary tables will be used where they can make decisions clearer. The PM and task lead will meet internally before each County/CHNEP meeting to confirm roles, anticipated questions, and decisions needed.

3. Meeting Follow-up on Action Items Process

To ensure that collaborative discussions translate into tangible progress, APTIM implements a rigorous and highly structured post-meeting workflow. We recognize that an effective meeting follow-up on action items process is vital to maintaining project momentum, mitigating schedule risks, and delivering a successful Comprehensive Vulnerability Assessment and Adaptation Action Area (AAA) plan.

Immediately following any kick-off, monthly progress, or stakeholder meeting, our project management team focuses on the rapid generation of comprehensive documentation. A critical component of this process is producing "detailed meeting notes and disseminating to CHNEP and the other project team members". We ensure these records accurately reflect all decisions made, input provided by team members, and the agreed-upon strategies for addressing that input. To guarantee that no task is overlooked, our meeting notes explicitly extract and highlight a comprehensive "list of action items (with responsible party noted and target completion date for each item) for follow-up from each meeting".

By clearly assigning definitive ownership and specific deadlines to every discrete task, we establish a firm foundation of accountability across both our internal team and client stakeholders. APTIM brings a proven track record of diligent project administration to this effort. As demonstrated in our previous regional planning initiatives, our team consistently "maintains meticulous records of all working group meetings, including detailed minutes, action items, and follow-ups".

We integrate these extracted action items into our broader schedule and project management tracking systems, continuously monitoring them from inception to resolution.

This systematic tracking protocol "ensures that decisions are traceable, accountability is maintained, and progress is systematically tracked" until every task is successfully closed. Furthermore, to keep the entire project team aligned between formal sessions, we reinforce our follow-up process by distributing "emails with short monthly progress bullets sent before the last business day of each month".

This continuous feedback loop guarantees that action items remain visible, deadlines are met, and the project advances smoothly toward final delivery.

C. Timeline and Schedule Development

APTIM will prepare a project management timeline immediately after the kick-off meeting. The timeline will map all RFQ tasks from notice to proceed through Month 12, including meeting dates, internal draft deadlines, QA/QC review periods, County/CHNEP review periods, comment deadlines, revised version deadlines, BOCC presentation preparation, final appendix approval, and FDEP submission documentation.

The schedule will be managed as a living tool. The PM will review schedule status weekly with the Deputy PM and task leads and will evaluate upcoming deadlines at each monthly meeting. If a schedule risk emerges, APTIM will identify the cause, propose a corrective action, and communicate the recovery plan to County and CHNEP staff. Corrective actions may include parallelizing GIS and narrative tasks, shifting specialist review earlier, holding targeted data-resolution calls, or delivering interim map/table packages for early review before full memorandum completion. **Figure II-2** illustrates the proposed timeline and marks project milestones.



Figure II-2 Proposed Timeline and Project Milestones



III. Previous Experience of Team Proposed for this Project



Tab III: Previous Experience of Team Proposed

The following matrix (**Figure III-1**) illustrates the team's experience in **conducting vulnerability assessments, critical asset data curation and analysis, critical asset sensitivity analysis, AAA identification and prioritization, AAA plan development, technical report writing and proofing, policymaker presentation development and implementation, and general project management** across multiple geographic scales. Their work is characterized by a focus on critical infrastructure, social vulnerability, and the integration of diverse flood risks (rainfall, storm surge, sea level rise, etc.).

	A. Vulnerability Assessments	B. Critical Asset Data Curation and Analysis	C. Critical Asset Sensitivity Analysis	D. AAA Identification and Prioritization	E. AAA Plan Development	F. Technical Report Writing and Proofing	G. Policymaker Presentation Development and Implementation	H. General Project Management
Projects	*All of our Vulnerability Assessment projects include items B, C, and D.							
Florida Adaptation Planning Guidebook Update					✓	✓	✓	✓
Escambia County Vulnerability Assessment & Adaptation Plan		✓			✓	✓		
Okaloosa County Vulnerability Assessment & Adaptation Plan		✓			✓	✓		
Charlotte County Threat and Hazard Identification and Risk Assessment (THIRA)						✓	✓	✓
Captiva Island Sea Level Rise Vulnerability Assessment & Bayside Adaptation Plan		✓			✓	✓	✓	✓
Village of Estero Vulnerability Assessment & Adaptation Plan		✓			✓	✓	✓	✓
Town of Longboat Key Sea Level Rise Vulnerability Assessment & Climate Adaptation Program		✓			✓	✓	✓	✓
City of Delray Beach Vulnerability Assessment & Adaptation Plan		✓			✓	✓	✓	✓
Town of Belleair Vulnerability Assessment and Bluff Restoration Conceptual Design		✓				✓	✓	✓
City of Pompano Beach Adaptation Plan					✓	✓	✓	✓
South Florida Military Installation Resilience Review		✓				✓	✓	
Northeast Florida Military Installation Resilience Review		✓				✓	✓	
East Central Florida Military Installation Resilience Review		✓				✓	✓	
Town of Juno Beach Vulnerability Assessment		✓			✓	✓	✓	✓
Village of North Palm Beach Vulnerability Assessment		✓			✓	✓	✓	✓

Projects	A. Vulnerability Assessments	B. Critical Asset Data Curation and Analysis	C. Critical Asset Sensitivity Analysis	D. AAA Identification and Prioritization	E. AAA Plan Development	F. Technical Report Writing and Proofing	G. Policymaker Presentation Development and Implementation	H. General Project Management
	*All of our Vulnerability Assessment projects include items B, C, and D.							
City of Homestead Vulnerability Assessment		✓			✓	✓	✓	✓
City of West Miami Vulnerability Assessment		✓			✓	✓	✓	✓
Miami Dade County Resilience Hubs Energy Vulnerability Assessment		✓				✓		
City of Albany (GA) Resilience Plan				✓	✓	✓		
Town of Carolina Beach, North Carolina Chronic Flooding Adaptation Plan				✓	✓	✓	✓	✓
Massachusetts Sea Level Rise & Water Supply Adaptation Areas		✓	✓	✓	✓	✓	✓	✓

Figure III-1 APTIM Team's Relevant Resilience Project Experience



IV. Project Control



Effective management of projects requires simultaneous management of the technical activities, the financial resources allocated to the project, the agreed upon project schedule, and the County's construction budget. These project management activities are briefly described in the following paragraphs.

A. Schedule

1. What techniques are planned to assure that schedule will be met?

APTIM will manage the schedule through a task-based project management timeline, a deliverable control matrix, and weekly internal schedule reviews. The timeline will be developed immediately after the kick-off meeting and will identify all RFQ tasks, monthly meetings, internal draft deadlines, QA/QC review periods, County/CHNEP review windows, comment deadlines, revised version deadlines, BOCC presentation preparation, and final submission requirements.

The deliverable control matrix will identify the responsible task lead, supporting staff, required inputs, internal review date, external review date, and final delivery date for each memorandum, map package, shapefile, spreadsheet, project sheet, presentation, and appendix. This tool will allow APTIM to track multiple deliverables simultaneously and identify schedule risks before they affect final deadlines.

APTIM will use the following schedule-control techniques:

- ▶ Confirm data needs and data owners at the kick-off meeting to avoid delays in Task 2.
- ▶ Establish a two-week look-ahead schedule for internal task leads.
- ▶ Hold weekly internal PM/task lead check-ins during active deliverable periods.
- ▶ Use parallel workstreams where appropriate, such as GIS analysis, narrative development, and cost/funding research.
- ▶ Build internal QA/QC review time into each deliverable before County and CHNEP submittal.
- ▶ Track County/CHNEP comments in a log with response owners and due dates.
- ▶ Flag schedule risks early and recommend corrective actions before deadlines are missed.

Corrective actions may include reallocating GIS staff, moving senior reviewer input earlier, convening short data-resolution calls, preparing interim map/table packages for early review, or compressing internal review through focused reviewer assignments.

2. Who will be responsible to assure that schedule will be met?

Schedule management will be the responsibility of Samantha Danchuk, PE, PhD, as Project Manager. She will be supported by Ivette Vidal-Vilela as Deputy Project Manager. Dr. Danchuk will establish the project management timeline, review progress against milestones, coordinate corrective actions if schedule risks emerge, and communicate schedule status to Glades County and CHNEP. Ms. Vidal-Vilela will maintain the deliverable control matrix, action-item log, and meeting follow-up records.

C. Quality Control and Assurance

1. What methods will ensure quality control prior to submittals for review?

APTIM will apply a milestone-based QA/QC process to each deliverable. The process will be scaled to the complexity of the deliverable but will generally include task lead review, technical peer review, GIS/data review, implementation-readiness review, and PM review before external submittal.

For GIS deliverables, Heather Vollmer, GISP will review spatial data structure, attribute completeness, metadata, map symbology, shapefile organization, and consistency with Resilient Florida GIS data expectations. For data curation and sensitivity analysis deliverables, Cigdem Ozkan, PhD, PE will review methodology, assumptions, scoring logic, and consistency between tables, maps, and narrative findings. For adaptation strategy and AAA plan deliverables, Samantha Danchuk will review technical defensibility, F.S. 380.093 alignment, and consistency with the Florida Adaptation Planning Guidebook. Doris Otero, PhD, CFM, James Barrack, PE, Douglas Mann, PE, Nicole Buranzon-Odell, CFM, Kristin Dobbins, PE, Katy Brown, Anne Shoffner, Wilhelm Romoser, and Edwin Fortier, PMP will provide targeted technical review of floodplain, roadway access, constructability, environmental, permitting, cost, and implementation considerations.

All draft deliverables will be reviewed against a QC checklist before submittal. The checklist will confirm that:

- ▶ RFQ deliverable requirements are addressed.
- ▶ Assumptions and data sources are documented.
- ▶ Maps, tables, and narrative text are consistent.
- ▶ GIS files and metadata are complete and clearly organized.
- ▶ Recommended strategies are tied to identified vulnerabilities.
- ▶ Project sheets include location, purpose, benefits, timeframe, cost assumptions, responsible/supporting departments, and funding options where applicable.
- ▶ Figures, tables, photos, and graphics are authorized for use and properly captioned.
- ▶ The deliverable is understandable to both technical and non-technical audiences

2. What methods will ensure technical memorandum writing is proofed to be complete, accurate, and suitable to both technical and non-technical audiences?

APTIM will write technical memoranda in a layered format that supports both technical review and policymaker understanding. Each memorandum will begin with a concise purpose statement, methodology summary, key findings, and decisions needed. Technical details, assumptions, tables, GIS outputs, and metadata references will follow in clearly labeled sections or appendices. Before submittal, technical memoranda will undergo three levels of review:

1. Technical accuracy review by the task lead and relevant subject matter expert.
2. Cross-deliverable consistency review by the PM to confirm that maps, tables, scoring results, and narrative findings align.
3. Readability and proofing review to confirm that the memorandum is complete, concise, and understandable to County staff, CHNEP, FDEP, stakeholders, and non-technical BOCC audiences.

APTIM will avoid unnecessary jargon and will define technical terms when they are first used. Maps and tables will be designed to communicate the meaning of the analysis, not simply display data. Where a finding requires policy or implementation action, the memorandum will clearly identify the implication for the next task.

3. Who will be responsible for quality control and assurance and who will be responsible to review, proofing, technical writing/editing?

Samantha Danchuk, PE, PhD, will be responsible for final QA/QC and technical quality integration. Cigdem Ozkan, PE, PhD, will be responsible for technical methodology review for data curation, sensitivity analysis, and AAA identification. Heather Vollmer, MS, GISP, will be responsible for GIS QA/QC. Lara Wakefield will support stakeholder input tracking and comment-response closure. Nate Pilson will support technical writing, formatting, presentation development, and proofing for clarity and consistency.

Specialist reviewers will be assigned based on deliverable content. Doris Otero, PhD, CFM, and James Barrack, PE, CQM, will review floodplain, stormwater, roadway access, and drainage-related assumptions. Douglas Mann, PE, and Nicole Buranzon-Odell, CFM, will review constructability and capital project readiness. Kristin Dobbins, PE, will review regulatory and permitting considerations. Katy Brown and Anne Shoffner will review environmental and nature-based solution considerations. Wilhelm Romoser and Edwin Fortier, PMP, will review cost assumptions, cost ranges, funding-readiness language, and estimate consistency.





V. Proposed Design Approach



A. Describe Proposed Approaches to

Glades County Context and Project Understanding

Glades County has already completed the foundational work of identifying flood exposure through its Comprehensive Vulnerability Assessment (CVA). The purpose of this project is to determine where adaptation investments will provide the greatest benefit and to translate vulnerability findings into implementable projects. Unlike many coastal adaptation planning efforts, Glades County's resilience challenges are driven primarily by inland flooding, stormwater conveyance limitations, emergency access, utility reliability, agricultural infrastructure, and the influence of the Lake Okeechobee watershed and regional water management system. Success will depend on identifying the County's most sensitive assets, defining practical Adaptation Action Areas (AAAs), and developing projects that can realistically advance toward funding and implementation.

APTIM's team includes practitioners who authored Florida's first Adaptation Action Area Planning Guidebook, supported updates to Florida's Adaptation Planning Guidebook, evaluated flood control infrastructure throughout Florida, and completed vulnerability assessments, adaptation plans, FEMA floodplain studies, and resilience implementation programs for local governments statewide. We will apply those lessons learned to develop a practical, implementation-focused roadmap that can be incorporated directly into the County's final CVA.

The overall project process, including all major tasks, is outlined in **Figure V-1**. APTIM's goal is to include various engagement styles to include public outreach and engagement meetings. Meeting materials and summary reports from these outreach efforts will be produced and delivered at the commencement of the meetings.



Figure V-1 Process Diagram

Task 1 – Project Management (NTP – Month 12)



APTIM will manage this assignment as an implementation-driven resilience project, not a stand-alone planning exercise. Our project management approach is built around clear decision points, disciplined schedule control, transparent communication, and early alignment with the County's final CVA, CHNEP funding requirements, and future implementation opportunities.

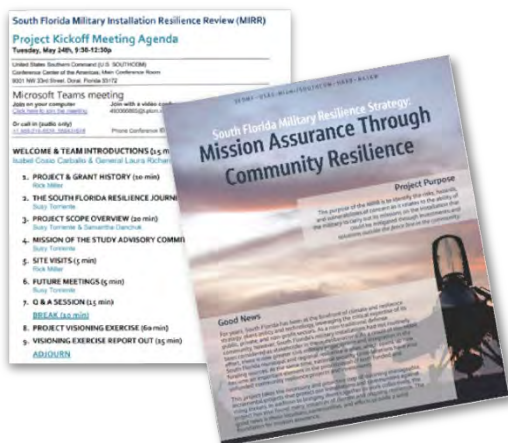


Figure V-2 Kick-Off Meeting and Example Materials from South Florida Military Resilience Review (MIRR)

when project activities begin, APTIM will utilize the Florida Statewide Vulnerability Assessment, available County datasets, Local Mitigation Strategy information, infrastructure records, and stakeholder input to initiate asset refinement, sensitivity analysis methodology development, and preliminary AAA screening. Once the County CVA becomes available, APTIM will perform a focused reconciliation review to incorporate updated findings without requiring significant rework of completed tasks. This approach reduces schedule risk while ensuring final recommendations remain consistent with the County's adopted vulnerability assessment.

The project will be led by Samantha Danchuk, PE, PhD, supported by APTIM's resilience planning, GIS, engineering, grant strategy, and QA/QC staff. This integrated team structure is a major advantage for Glades County: the same team that understands F.S. 380.093, the Florida Adaptation Planning Guidebook, and Resilient Florida deliverable expectations also understands how to turn planning findings into projects that can compete for funding and move into design.

APTIM will hold monthly progress meetings that focus on decisions, not just status. Each meeting will review completed work, upcoming milestones, data or review needs, action items, schedule risks, and key decisions needed from County or CHNEP staff. Meeting notes will document assumptions, decisions, responsible parties, and deadlines so the record remains clear throughout the 12-month schedule.

Schedule control will be maintained through a living work plan that tracks RFQ tasks, technical review periods, County/CHNEP review periods, draft and final submittals, BOCC presentation preparation, and FDEP documentation needs. If a schedule risk emerges, APTIM will identify the cause and recommend corrective action, such as parallel GIS and narrative reviews, targeted data-resolution meetings, or early delivery of map/table packages for staff review.

Quality control will be embedded in every task. GIS data, asset classifications, scoring assumptions, project sheets, cost opinions, funding pathways, and final narratives will receive technical and editorial review before submittal. This reduces late-stage rework and gives the County defensible materials that can be used confidently in public meetings, grant applications, and future capital planning.

APTIM will also keep implementation and funding in view throughout the project. Rather than waiting until the end to discuss grants, we will shape data, project descriptions, cost estimates, and benefits so

At kick-off, APTIM will confirm the purpose of the project, communication protocols, review schedule, existing CVA assumptions, required deliverables, and the process for incorporating the Priority Adaptation Action Area (AAA) Plans into the final CVA (Figure V-2) for an example kickoff meeting. We will also confirm the County and partner staff who should be involved in asset verification, sensitivity scoring, AAA boundary review, project development, and policymaker presentation preparation.

APTIM recognizes that completion of the County's Comprehensive Vulnerability Assessment may not align perfectly with the AAA planning schedule. To maintain project momentum while preserving consistency with future County resilience planning efforts, APTIM will establish a phased data management approach at project initiation. If the final County CVA is not available

the County is positioned to pursue Resilient Florida, FEMA, SFWMD, FDOT, and other infrastructure funding opportunities as soon as the final CVA materials are approved.

Task 2 – Data Curation (NTP – Month 2)



Strong AAA planning begins with a reliable critical asset inventory. APTIM will develop a proposed refinement methodology that explains how assets will be reviewed, categorized, screened, verified, and carried forward into the sensitivity analysis and AAA prioritization. The methodology will be simple enough for County staff to follow and rigorous enough to support future funding and regulatory review.

If the final County CVA dataset is not yet available at the start of the project, APTIM will use the Florida Statewide Vulnerability Assessment as an interim foundation for asset screening and refinement. Statewide assessment results already indicate that inland flooding—not tidal flooding—is the primary driver of risk within Glades County and identify concentrations of vulnerable transportation assets, critical infrastructure, and community facilities that warrant further evaluation. These datasets can support early project activities while allowing incorporation of County-specific CVA results when available.

Particular attention will be given to assets that support continuity of operations and emergency response across Glades County's dispersed rural communities, including transportation corridors such as US 27, SR 78, SR 29, CR 720, and CR 721; emergency management and EOC facilities; EMS and fire service infrastructure; community facilities serving Lakeport, Buckhead Ridge, Palmdale, Muse, Ortona, and Moore Haven; utility systems; and drainage infrastructure connected to the Lake Okeechobee and Caloosahatchee watershed systems. Since service delivery in Glades County depends heavily on a limited number of transportation and utility corridors, APTIM will evaluate not only asset exposure but also the potential consequences of access disruption, isolation, or cascading service interruptions.

APTIM will review the existing CVA materials, County GIS files, public and private critical asset data, transportation and evacuation route information, drainage and stormwater datasets, utility and facility records, FEMA and FDEP data, FDOT information, and relevant regional water management datasets where available. Because Glades County's risk profile is closely tied to inland flooding, drainage capacity, access, rural service delivery, and the broader Lake Okeechobee/water management context, our data review will emphasize both location-based exposure and functional importance.

Each asset will be screened for asset type, ownership, critical function, public/private status, location confidence, data completeness, flood relevance, service area, and potential adaptation responsibility. This will allow the team to distinguish between assets that are mapped because data exists and assets that should drive AAA planning because failure or disruption would create meaningful consequences for the County.

Where asset data is incomplete, inconsistent, or duplicative, APTIM will flag the issue and work with County staff to resolve it efficiently. We will use GIS review, aerial interpretation, available public records, previous planning documents, and staff input to verify the most important assets before they are scored. This approach is especially important for rural counties where asset ownership, service dependencies, and access constraints may not be fully captured in statewide datasets.

The data curation process will produce a refined, documented asset inventory that can support this project and remain useful after the project is complete. Deliverables will include the Critical Asset Data Curation Methodology and Technical Memorandum, updated GIS files, metadata, and clear tables showing which assets were included, excluded, revised, or flagged for future verification.

APTIM's advantage in this task is our ability to combine geospatial discipline with practical implementation judgment. Our team has developed and reviewed Resilient Florida vulnerability assessment datasets across Florida, and we understand how asset inventory decisions affect sensitivity scores, adaptation priorities, grant competitiveness, and public confidence in the final plan.

Task 3 – Sensitivity Analysis (Months 3-4)



Task Description: APTIM will prepare an asset-level sensitivity analysis that translates the refined critical asset inventory into clear, defensible risk information. The analysis will build on the existing CVA while providing the more detailed asset-level evaluation needed to identify and prioritize AAAs.

Consistent with Glades County's infrastructure and land use characteristics, APTIM will evaluate sensitivity through both an asset lens and a systems lens. For example, a roadway segment may have limited direct flood exposure but still receive a high sensitivity score if it provides the sole access route to emergency services, critical facilities, or population centers. Similarly, drainage features, control structures, utility assets, and emergency facilities may warrant elevated prioritization where disruption could affect multiple communities or large service areas. This approach reflects the County's emphasis on protecting public health, safety, emergency response capability, and continuity of essential services.

Preliminary statewide assessment results indicate that critical infrastructure and transportation systems experience substantially greater impacts under inland flooding scenarios than under tidal flooding scenarios. APTIM will use these findings as an initial screening tool while refining sensitivity scores through local data, stakeholder input, and County-specific information. This allows the project team to focus early efforts on the assets and systems most likely to influence AAA prioritization.

Our sensitivity framework will evaluate how assets respond to flood conditions and how disruption affects the County's ability to provide essential services. Factors may include exposure depth or frequency, asset function, service area, redundancy, emergency response role, access dependency, recovery complexity, replacement or repair difficulty, and consequences for vulnerable populations or critical community functions.

This approach is particularly important for Glades County because the most important resilience decisions may not be limited to the deepest flooding. A moderately exposed roadway, drainage feature, emergency service facility, utility asset, or community-serving facility may be highly sensitive if it affects evacuation, access to services, continuity of operations, or recovery after a storm.

APTIM will document the scoring methodology in plain language so County staff, reviewers, and policymakers can understand how results were developed. Maps and tables will show the relationship between flood exposure, asset sensitivity, criticality, and geographic clustering. This transparency strengthens the defensibility of the AAA prioritization process and provides language that can be reused in future grant applications.

The sensitivity analysis will be reviewed internally by APTIM's GIS, planning, engineering, and QA/QC staff to confirm consistency between datasets, maps, scoring tables, and narrative findings. Our goal is to give the County a sensitivity analysis that is technically credible, easy to explain, and directly useful for project development. Deliverables will include the Critical Asset Sensitivity Analysis Methodology and Technical Memorandum, supporting maps and tables, sensitivity results, and GIS outputs structured for use in Task 4 AAA identification and Task 5 project development.

Task 4 – Identification and Prioritization of Adaptation Action Areas (Months 5-6)



Candidate AAAs will be developed around concentrations of vulnerable infrastructure, community functions, and environmental resources rather than solely around mapped flood depths. Preliminary statewide assessment results suggest that future adaptation priorities will likely be driven by inland flooding impacts to transportation networks, critical infrastructure, emergency services, and community facilities. Based on the discussions of the CVA and Glades County's infrastructure network, APTIM anticipates candidate AAAs may emerge around Moore Haven, Buckhead Ridge, Lakeport, key transportation corridors, utility service areas, emergency response facilities, and drainage systems influenced by regional water management operations. Particular attention will be given to locations where transportation access, drainage performance, public facilities, and critical services intersect, creating opportunities for projects that provide multiple resilience benefits from a single investment.

APTIM will prioritize AAAs using transparent criteria aligned with the Florida Adaptation Planning Guidebook and the RFQ. Criteria will include asset criticality, sensitivity score, concentration of exposed assets, public safety and emergency access, population served, social vulnerability considerations, project feasibility, funding competitiveness, regulatory complexity, ownership, and readiness for near- or mid-term implementation.

County and CHNEP review will be built into the prioritization process. APTIM will present candidate areas and scoring results in a working session so staff can confirm whether the technical results match local experience, known problem areas, existing capital planning priorities, and regional coordination needs.

The final prioritization will identify the top three Priority AAAs for plan development. APTIM will provide clear rationale for why each area was selected, what assets and services it protects, what vulnerabilities it addresses, and how it can support fundable adaptation projects.

Deliverables will include an AAA Identification and Prioritization Technical Memorandum, maps, scoring tables, final Priority AAA boundaries, and GIS shapefiles. These materials will establish the foundation for the three Priority AAA Plans and the final CVA appendix.

Task 5 – Top Three Priority Adaptation Action Area Plans (Months 7-10)



Adaptation Strategy Framework: While protection of critical infrastructure and community services remains a primary objective, APTIM recognizes that CHNEP's broader resilience goals also include protection of natural systems, water quality functions, habitat resources, and watershed health. Accordingly, adaptation strategies will be evaluated not only for their ability to reduce flood risk, but also for their potential to support water quality improvement, natural storage, habitat enhancement, and other ecosystem benefits where appropriate.

Each Priority AAA Plan will begin with a concise description of the area, why it was prioritized, the critical assets and services at risk, the relevant flood mechanisms, and the consequences of inaction. This creates a clear narrative that can support public communication, BOCC discussions, grant applications, and coordination with infrastructure partners.

For each Priority AAA, APTIM will develop a project portfolio tailored to local conditions and identified vulnerabilities. Potential adaptation strategies may include drainage and stormwater conveyance improvements, canal and ditch enhancements, water-control structure modifications, stormwater storage and attenuation projects, wetland restoration, floodplain reconnection, water quality improvement projects, natural infrastructure approaches, roadway resilience improvements, emergency

access protection, utility resilience measures, and other projects that provide both flood risk reduction and environmental co-benefits. Recommendations will also consider opportunities to preserve natural storage functions, maintain hydrologic connectivity, and support regional watershed objectives consistent with County comprehensive planning policies.

Glades County Risk Profile

- Inland flooding represents the dominant flood hazard.
- Transportation assets experience some of the highest projected impacts under future inland flood scenarios.
- Critical infrastructure and community facilities become increasingly vulnerable under future rainfall conditions.
- Adaptation investments should prioritize access, drainage performance, continuity of services, and protection of natural flood storage functions.

APTIM will connect each recommended project directly to the vulnerable assets, facilities, transportation routes, drainage systems, and community functions it protects. This asset-to-project traceability is a core implementation strength of our approach because it allows the County to clearly demonstrate how a proposed investment reduces risk, protects critical services, improves emergency access, enhances recovery capability, or increases eligibility for future funding opportunities. Each project sheet will include a project description, location, asset(s) addressed, adaptation strategy, planning-level concept, anticipated benefits, responsible and supporting parties, permitting and coordination considerations, planning-level cost estimate, implementation phasing, readiness level, and potential funding

sources. Graphics and mapping products will be developed for practical use in grant applications, BOCC briefings, interagency coordination, and future engineering scopes.

APTIM's planners, engineers, cost estimators, resilience specialists, and grant strategists will work collaboratively throughout project development. This integrated approach is a significant advantage for Glades County because recommendations will be evaluated through the lens of constructability, permitting, cost, funding eligibility, implementation sequencing, and long-term operations from the outset rather than being presented solely as conceptual planning ideas.

Because many resilience challenges in Glades County are influenced by conditions extending beyond individual project boundaries—including Lake Okeechobee operations, regional drainage systems, watershed hydrology, transportation corridors, utility interdependencies, and emergency service access routes—APTIM will evaluate opportunities to bundle related projects into implementable resilience programs. This programmatic approach helps position the County for larger state and federal funding opportunities while maximizing the overall risk-reduction value of individual investments. Funding and financing will be integrated throughout project development. APTIM will identify likely program fits including Resilient Florida, FEMA BRIC, Hazard Mitigation Grant Program, Flood Mitigation Assistance, South Florida Water Management District cost-share programs, FDOT resilience initiatives, Community Development Block Grant programs, and other state and federal funding opportunities, as appropriate. For each project, we will identify likely match requirements, readiness gaps, application timing considerations, and actions the County can take to improve competitiveness. The three Priority AAA Plans will be formatted so individual project sheets, maps, benefit narratives, and funding strategies can be extracted and reused. This increases the practical value of the work and reduces the effort required for future grant applications, capital improvement planning, BOCC presentations, interagency coordination, and project advancement.

Deliverables will include Task 5a, Task 5b, and Task 5c Priority AAA Plans in Microsoft Word and accessible PDF formats, including project portfolios, conceptual adaptation strategies, planning-level cost estimates, implementation phasing recommendations, funding opportunities, supporting maps, and GIS shapefiles for each identified adaptation action area.

Task 6 – Incorporation of Priority Adaptation Action Areas Plans into the Final Vulnerability Assessment (Months 11-12)



APTIM will integrate the three Priority AAA Plans into the final CVA package, so the County receives a cohesive, FDEP-ready deliverable rather than disconnected technical products. The final materials will connect the refined asset inventory, sensitivity analysis, AAA prioritization, project recommendations, GIS layers, cost information, funding strategy, and implementation next steps.

The final CVA appendix or companion material will be organized for multiple users. Technical staff will be able to trace assumptions, GIS data, scoring, and project details. County leadership and policymakers will be able to quickly understand the priority areas, recommended investments, costs, benefits, and decisions needed. Grant writers and project managers will be able to reuse project sheets, maps, and narratives with minimal rework.

APTIM will prepare final Word and accessible PDF files, GIS data, project sheets, supporting tables, and presentation materials with consistent naming, captions, documentation, and accessibility considerations. All deliverables will be structured to support public records requirements and future County use.

A concise PowerPoint presentation will be developed for policymakers. The presentation will avoid technical overload while clearly communicating the problem, the priority areas, the recommended projects, the funding and implementation logic, and the action requested from the BOCC. APTIM's experience presenting resilience findings to elected officials helps ensure technical recommendations are translated into clear, decision-ready messages.

AAA Technical Memoranda will be developed for each Priority AAA and will document methodologies, assumptions, and project evaluation results in a transparent, audit-ready format suitable for use in grant submittals and regulatory review. These memoranda will clearly describe how projects respond to identified vulnerabilities, including compound flooding conditions, tidal influence, and infrastructure constraints, and will explicitly document assumptions related to sea level rise scenarios, cost estimates, and benefit evaluations. This level of documentation ensures that the County can directly incorporate materials into funding applications such as FEMA BRIC or Resilient Florida without requiring additional technical justification.

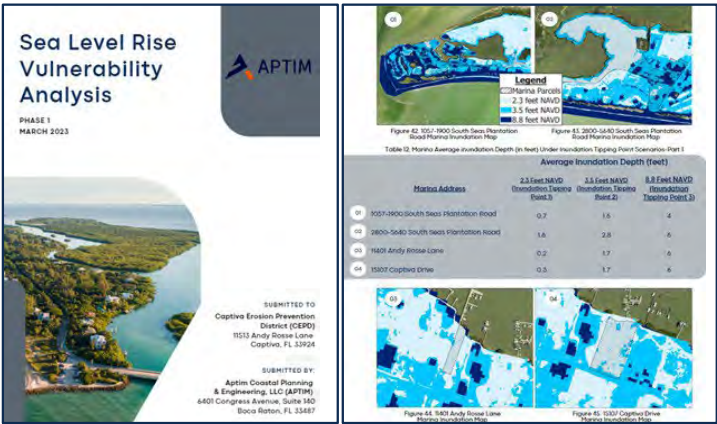


Figure V-3 Example of the Captiva Erosion Prevention District Sea Level Rise Final Report

The final report (**Figure V-3**) will integrate mapping, project sheets, prioritization outputs, and funding alignment into a concise, implementation-focused document organized to support both technical review and executive decision-making. Rather than presenting information as a traditional narrative plan, the report will be structured to allow users to quickly identify priority projects, understand their purpose and feasibility, and determine next steps for advancement. Key sections will include clearly organized project portfolios by AAA, summaries of near-term funding opportunities, and cross-departmental implementation considerations.

Before final delivery, APTIM will complete a QA/QC review for technical consistency, cross-reference accuracy, map/table alignment, accessibility, and grant-readiness. The final package will be designed to help Glades County and its partners move immediately from planning into funding, design, and implementation.

This final step is where APTIM's value is most visible: the County receives not only the required CVA documentation, but also a practical implementation toolkit built from defensible analysis, local priorities, realistic project development, and the team's direct knowledge of Florida adaptation planning standards.

Approach for Implementation Phasing and Timeline

APTIM develops adaptation plans as implementation frameworks, with each project structured to move efficiently from concept through design, permitting, and construction. In alignment with the Florida Adaptation Planning Guidebook and our experience managing resilience capital programs, we will define realistic, dependency-driven phasing strategies for each prioritized project.

Each project will include a detailed implementation table identifying key phases—feasibility, conceptual design, final design, permitting, procurement, and construction—along with anticipated durations, milestone triggers, and dependencies. These schedules will explicitly account for Florida-specific permitting pathways, including Coastal Construction Control Line (CCCL) requirements, Environmental Resource Permits (ERP), and coordination with agencies such as FDEP, USACE, and water management districts, as applicable.

Phasing will also reflect infrastructure interdependencies and constructability considerations, including utility conflicts, outfall elevations relative to tidal conditions, groundwater influences, and tie-ins to existing drainage or shoreline systems. Drawing from experience in communities such as Longboat Key and Captiva, APTIM recognizes that coastal adaptation projects often require sequencing across upland drainage, shoreline protection, and utility systems, rather than standalone interventions.

Projects will be aligned with the County's capital improvement planning cycles and redevelopment patterns, allowing near-term, "ready-to-advance" projects to proceed while identifying longer-term investments tied to corridor improvements or redevelopment triggers. This ensures the plan functions as a living capital program tool, not a static report.

Through this approach, the County receives implementation-ready schedules grounded in regulatory, funding, and construction realities, significantly reducing the lag between planning and project delivery.

B. What problems do you anticipate and how do you propose to solve them?

Anticipated Challenge 1: Asset Inventory Quality and Ownership Uncertainty

Glades County's existing critical asset inventory will likely contain assets with varying levels of completeness, ownership information, operational status, and flood relevance. Because the project requires refinement of public and private assets before AAA identification, incomplete asset records could affect sensitivity scoring and prioritization.



APTIM Solution: We will implement a structured asset validation process combining GIS review, aerial verification, stakeholder interviews, and departmental review workshops. Assets will be categorized by ownership, critical function, flood relevance, and adaptation responsibility, creating a transparent and defensible foundation for subsequent analyses.

Anticipated Challenge 2: Translating Basin-Level Findings into Asset-Level Sensitivity

The existing CVA evaluated sensitivity at the basin level, while this project requires asset-specific sensitivity evaluation.



APTIM Solution: Leveraging methodologies developed through Resilient Florida vulnerability assessments and statewide adaptation planning guidance, APTIM will develop an asset-level scoring framework that evaluates exposure, service disruption consequences, replacement complexity, recovery time, and emergency response significance. This approach provides a more meaningful basis for AAA prioritization than flood depth alone.

Anticipated Challenge 3: Prioritizing AAAs Across Diverse Asset Types

Glades County contains transportation assets, utilities, emergency facilities, agricultural infrastructure, and community-supporting facilities that may experience different flood mechanisms and consequences.



APTIM Solution: We will utilize a multi-criteria prioritization framework consistent with the Florida Adaptation Planning Guidebook that combines asset criticality, sensitivity, clustering, population served, emergency function, implementation feasibility, and funding competitiveness. This allows decision-makers to understand not only where flooding occurs, but where adaptation investments will provide the greatest community benefit.

Anticipated Challenge 4: Developing Fundable Projects Rather than Conceptual Recommendations

Many adaptation plans identify vulnerabilities but stop short of developing projects that can compete for funding.



APTIM Solution: APTIM's engineers, planners, and grant specialists will develop conceptual designs, planning-level cost estimates, implementation sequencing, and funding strategies concurrently. This approach is informed by our experience supporting Resilient Florida, FEMA, USACE, and infrastructure grant programs and ensures that recommended projects are implementation-ready rather than purely conceptual.

Anticipated Challenge 5: Alignment with Regional Water Management Systems

Flood risk within Glades County is influenced by drainage systems, canal operations, watershed conditions, and the broader Lake Okeechobee system.



APTIM Solution: We will coordinate with County staff, CHNEP, and relevant regional partners while evaluating how adaptation strategies interact with drainage infrastructure, water management objectives, emergency access, and ongoing restoration initiatives.

This helps ensure recommendations are practical, compatible with regional efforts, and positioned for future funding opportunities.

C. Describe innovative approaches that could be applicable to this project.

Asset-to-Project Traceability Matrix

One challenge of adaptation planning is demonstrating how identified projects directly reduce risk. APTIM will develop an Asset-to-Project Traceability Matrix linking each vulnerable critical asset to specific adaptation strategies, projects, cost estimates, and funding opportunities. This creates a transparent line of sight from vulnerability assessment findings to implementation decisions and future grant applications.

AAA Readiness Scoring

In addition to vulnerability-based prioritization, APTIM will evaluate implementation readiness.

Each proposed project will receive a readiness score based on:

- ▶ Land ownership
- ▶ Regulatory complexity
- ▶ Existing design status
- ▶ Funding eligibility
- ▶ Constructability
- ▶ Interagency coordination needs

This helps Glades County identify "quick wins" alongside longer-term investments.

Funding-Integrated Project Development

Rather than identifying funding after projects are selected, APTIM will incorporate funding eligibility into project development.

Projects will be evaluated against:

- ▶ Resilient Florida
- ▶ FEMA BRIC
- ▶ FEMA Hazard Mitigation Grant Program
- ▶ Flood Mitigation Assistance
- ▶ FDOT resilience programs
- ▶ SFWMD cost-share opportunities

This approach increases implementation potential and reduces future rework.

Adaptation Project Sheets Designed for Immediate Reuse

Each project sheet will be structured so it can be directly incorporated into:

- ▶ Grant applications
- ▶ Capital Improvement Programs
- ▶ Board presentations
- ▶ Future engineering scopes

This significantly increases the long-term value of the plan.

Scenario-Based Adaptation Screening

Building on Florida Adaptation Planning Guidebook methodologies, APTIM will evaluate adaptation measures against multiple flood scenarios to identify strategies that provide benefits across a range of future conditions. This helps avoid over-investment in short-lived solutions while identifying projects capable of delivering long-term resilience benefits.



VI. Examples of Recently Accomplished Similar Projects



Risk Assessment Adaptation Planning

Client

Charlotte County

Contract Value

\$60,000

Company Role

Prime

Current POCs

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CHARLOTTE COUNTY THREAT AND HAZARD IDENTIFICATION AND RISK ASSESSMENT (THIRA)

Charlotte County, FL | 2026

Project Overview

APTIM supported Charlotte County Emergency Management in developing a FEMA-compliant Threat and Hazard Identification and Risk Assessment (THIRA) and Stakeholder Preparedness Review (SPR) using Comprehensive Preparedness Guide (CPG) 201. The effort established a defensible framework for identifying priority hazards, evaluating impacts, and linking risk to preparedness capabilities and investment needs.

Project Description

APTIM conducted a structured, stakeholder-driven process combining local data, historical events, and agency input to identify hazards, develop realistic impact scenarios, establish capability targets across FEMA's 32 core capabilities, and assess current performance gaps. This project gives APTIM direct familiarity with Charlotte County (the issuing agency for this RFP), its emergency management priorities, and the regional hazard profile of Southwest Florida. The THIRA methodology's emphasis on scenario development, asset vulnerability, and capability-based investment decisions is directly transferable to the asset-level sensitivity and AAA prioritization tasks in the Glades County scope.

Approach

This approach is directly applicable to emergency management planning, as the integration of hazard identification, scenario development, and capability-based assessment provides a defensible framework for prioritizing preparedness investments and improving operational readiness.

Project Success

- Establishes direct working relationship with Charlotte County — the issuing agency for this RFP
- Lara Wakefield (Risk Management) led this project, providing direct regional hazard context for Glades County AAA work
- THIRA's scenario-based risk framework is directly analogous to the sensitivity analysis approach required in Task 3
- Demonstrates APTIM's ability to deliver FEMA-compliant frameworks on schedule for Charlotte County clients
- Regional familiarity with Southwest Florida infrastructure, flooding patterns, and emergency services directly applies to Glades County inland flooding context



Schedule Control

APTIM managed the THIRA/SPR workflow through defined milestones for hazard identification, scenario development, capability target review, stakeholder input, draft review, and final documentation, keeping County reviewers aligned with FEMA's process.

Quality Control and Assurance

The team checked hazard scenarios, capability targets, preparedness gaps, and narrative findings against FEMA THIRA/SPR methodology and core capability guidance.

Problems Encountered

Departments and partner agencies often describe hazards, impacts, and capabilities differently, which can create inconsistent risk narratives.

Solutions/Corrective Actions

APTIM used structured scenario language and a clear assumptions framework to convert varied input into comparable findings. This same discipline will support Glades County's asset sensitivity and AAA prioritization work.

Adaptation Planning Implementation Planning

Client

Florida Department of
Environmental Protection

Contract Value

\$39,945

Company Role

Prime

Current POCs

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FDEP FLORIDA ADAPTATION PLANNING GUIDEBOOK DEVELOPMENT & WORKSHOP SERIES

Florida | 2024-2024

Project Overview

APTIM supported FDEP in updating the Florida Adaptation Planning Guidebook — the authoritative State reference for vulnerability assessment and adaptation planning under F.S. 380.093. The project engaged 300+ stakeholders, developed a matrix of 30 metrics-driven adaptation strategies, and defined allowable tasks and deliverables for Resilient Florida Grant Program funding. The project received the 2024 Climate Change Business Journal Business Achievement Award.

Project Description

APTIM led all aspects of guidebook development including writing new chapters on compound flooding, adaptive capacity, and implementation planning. The team developed grant task lists aligned with F.S. 380.093(3)(b) and hosted a statewide virtual workshop series. This work directly governs what the Glades County deliverables must contain to be compliant and fundable — making APTIM uniquely positioned to produce documents that satisfy both the technical and regulatory requirements of this RFP. **This project received the 2024 Climate Change Business Journal Business Achievement Award.**

Project Success

- APTIM literally wrote the standards this project must comply with — no other team has this level of guidebook authorship
- Establishes Dr. Danchuk's and Dr. Ozkan's direct knowledge of FDEP scoring criteria and acceptable methodologies
- Demonstrates organizational capacity for large-scale stakeholder engagement (300+ attendees) and public reporting

- Confirms experience developing metrics-driven adaptation strategies aligned with cost-benefit thinking required in Task 5
- Recognized externally with a 2024 Business Achievement Award, demonstrating quality of deliverables



Schedule Control

APTIM organized the guidebook update around chapter assignments, DEP review milestones, stakeholder listening sessions, comment-response periods, and publication-ready revisions.

Quality Control and Assurance

Draft content was reviewed for consistency with F.S. 380.093, Resilient Florida expectations, adaptation planning best practices, funding considerations, and local-government usability.

Problems Encountered

The guidebook needed to work for both small rural counties and large coastal municipalities, without becoming too generic or too technical.

Solutions/Corrective Actions

APTIM translated statutory and grant requirements into practical guidance, strategy categories, implementation steps, and funding resources. This gives the team direct insight into FDEP-compliant AAA appendices for Glades County.

Adaptation Planning Vulnerability Assessment

Client

Captiva Erosion Prevention
District

Contract Value

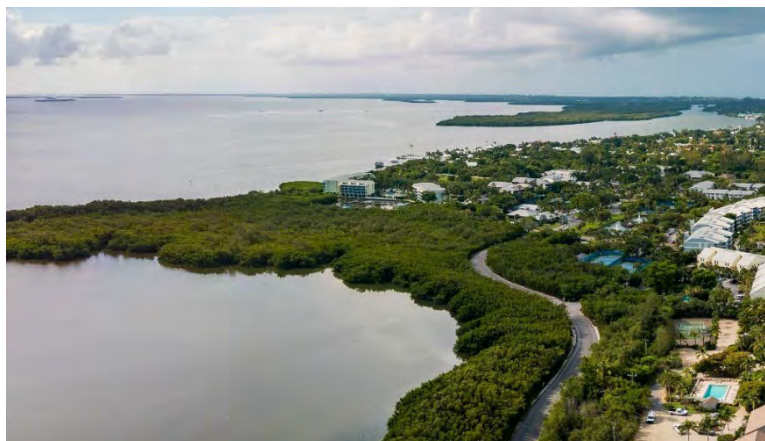
VA: \$66,884 / AP: \$500,000

Company Role

Prime

Current POCs

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CAPTIVA ISLAND VULNERABILITY ASSESSMENT & ADAPTATION PLAN

Captiva, FL | VA: 2022 – Apr 2023 / AP: Nov 2023 - Apr 2025

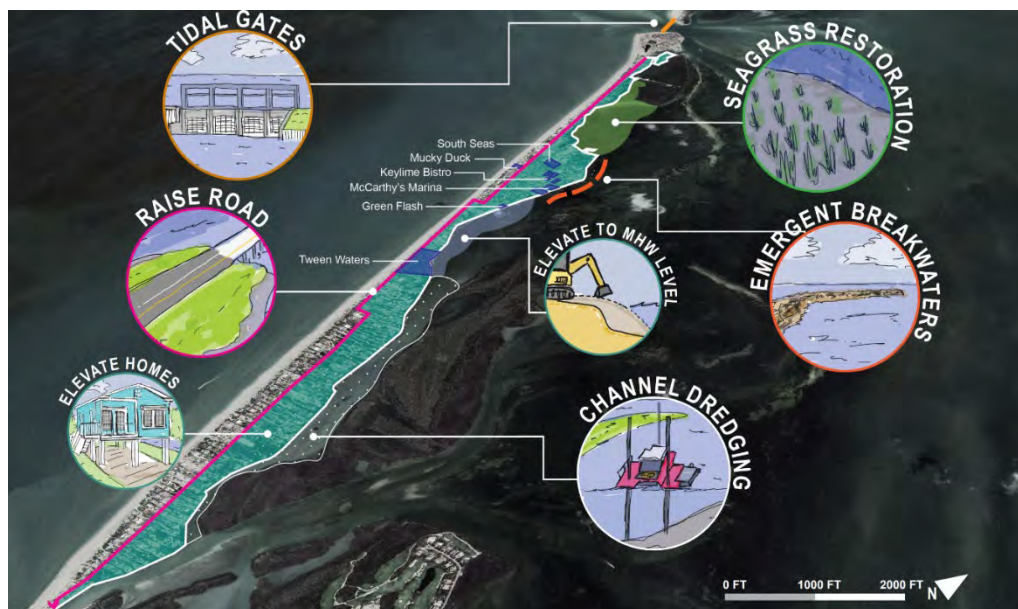
Project Overview

APTIM conducted an island-wide vulnerability assessment followed by a detailed bayside Adaptation Plan for Captiva Island.

The VA mapped and prioritized critical infrastructure under multiple sea level rise and flood scenarios. The Adaptation Plan developed prioritized bayside adaptation areas, proposed and assessed feasibility of structural and non-structural strategies, and engaged private property owners in implementation planning.

Project Description

The Vulnerability Assessment established exposure, sensitivity, and risk analyses by asset, directly mirroring the methodology required in Glades County Tasks 2 and 3. The Adaptation Plan then translated VA findings into AAA-equivalent prioritized action areas with specific adaptation strategies, engineering assessments, and cost considerations — directly applicable to Task 5. The project also demonstrated the integration of compound flooding (storm surge + rainfall + groundwater), nature-based solutions, and policy-based strategies with gray infrastructure recommendations, and required presentations to officials and special committees on sea level rise — directly applicable to Glades County's BOCC presentation requirement.





Schedule Control

APTIM phased the work from vulnerability findings to focus areas, strategy screening, public and steering committee review, implementation planning, and final plan development.

Quality Control and Assurance

GIS outputs, flood assumptions, critical asset findings, focus area boundaries, strategy options, costs, and funding pathways were reviewed by resilience, engineering, and planning staff.

Problems Encountered

Captiva required adaptation planning across public and private lands, limited rights-of-way, shoreline variability, vulnerable critical assets, and property-owner coordination needs.

Solutions/Corrective Actions

APTIM separated strategies by implementation lead, ownership need, time horizon, and feasibility. The plan identified Northern, Central, and Southern Captiva focus areas and outlined CEPD-led, private-land, and community-wide implementation pathways.

Adaptation Planning Vulnerability Assessment

Client

Town of Longboat Key, FL

Contract Value

\$259,963

Company Role

Prime

Current POCs

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LONGBOAT KEY VULNERABILITY ASSESSMENT & ADAPTATION PLAN

Town of Longboat Key | Aug 2019 - Mar 2023

Project Overview

APTIM was contracted to conduct an island-wide vulnerability assessment and multi-year Adaptation Plan for Longboat Key,

addressing sea level rise and recurrent flooding impacts on public and private infrastructure. The project produced a risk-based capital improvement plan with priority projects for 5-, 10-, and 20-year horizons and 25 strategic actions for shoreline management, stormwater, public assets, redevelopment, and community engagement.

Project Description

The results of the Vulnerability Assessment were the basis for the development of the Sea Level Rise and Recurring Flooding Resilience Adaptation Plan. This plan represents an island wide resilience plan and risk-based capital plan with priority projects for the next 5, 10, and 20 years has been developed to support staff implementation of climate adaptation and flood mitigation. The plan consists of 25 strategic actions focused on management of shorelines, stormwater and public assets, preparing for redevelopment, supporting community engagement and planning for future capital investments.

Project Success

- Developed short- and medium-term resilient capital improvement plans based on conceptual design of adaptation strategies.
- Identified potential funding sources and included in the adaptation plan based on eligibility of measures.



Schedule Control

APTIM structured the update around prior action review, updated vulnerability findings, performance tracking, implementation schedule updates, funding options, and next steps.

Quality Control and Assurance

The team reviewed updated NOAA projections, critical asset exposure, performance tracking tables, progress summaries, schedule changes, and funding recommendations for consistency.

Problems Encountered

The update had to reconcile prior adaptation actions with new projections, recent storm impacts, completed projects, evolving priorities, and long-term capital needs.

Solutions/Corrective Actions

APTIM documented updated assumptions, refreshed the implementation schedule, tracked progress, and identified where sequencing should shift. This living-plan approach is relevant to Glades County's AAA planning.

Vulnerability Assessment Adaptation Plan

Client

City of Delray Beach

Contract Value

VA: \$198,000

AP: \$100,000

Company Role

Prime

Current POCs

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DELRAY BEACH VULNERABILITY ASSESSMENT & ADAPTATION PLAN

Delray Beach, FL | Jan 2024 - Nov 2024

Project Overview

APTIM performed a comprehensive Adaptation Plan for Delray Beach, building on a completed vulnerability assessment. The plan assessed adaptive capacity, prioritized adaptation needs,

and identified implementation-ready strategies informed by stakeholder engagement, site inspections, and review of prior plans. The final plan included a prioritized project list with phased implementation through 2050, cost estimate ranges, funding options, and an asset management geodatabase.

Project Description

This project demonstrates the full adaptation planning workflow from VA findings through a BOCC-ready implementation plan, directly analogous to Glades County Tasks 4–6. Key parallels include: structured adaptive capacity review evaluating institutional readiness, capital planning alignment, and funding pathways; targeted site investigations during flooding conditions to identify specific failure points; an asset management geodatabase for tracking projects, policies, and performance metrics; a phased project list extending to 2050; and funding eligibility mapping for FEMA BRIC, Resilient Florida, and state infrastructure programs. The plan was adopted by elected officials — confirming APTIM's ability to present technical findings in a manner that earns policy-level approval.

Project Success

- Demonstrates full Adaptation Plan delivery from VA to elected official adoption — identical workflow to Glades County Tasks 4–6
- Phased implementation plan (near/mid/long-term) directly mirrors Task 5 project prioritization and readiness assessment requirements
- Asset management geodatabase confirms capability to deliver reusable GIS tools for county staff
- Funding eligibility mapping for FEMA BRIC and Resilient Florida directly applicable to Glades County grant positioning
- Plan adopted by elected officials confirms quality of policymaker presentation materials (Task 6 requirement)



Schedule Control

APTIM sequenced prior VA review, adaptive capacity evaluation, site inspections, public outreach, adaptation site identification, cost estimating, funding review, and phased implementation scheduling.

Quality Control and Assurance

Project locations, strategies, cost ranges, funding eligibility, outreach findings, schedule entries, and graphics were cross-checked before finalization.

Problems Encountered

The project had to turn vulnerability findings into actionable projects while balancing public infrastructure needs, private adaptation responsibilities, public input, costs, and urgency.

Solutions/Corrective Actions

APTIM used site-specific adaptation areas, public outreach findings, cost tiers, funding pathways, and a phased schedule to convert broad findings into practical actions.

Vulnerability Assessment Adaptation Plan

Client

Village of Estero, FL

Contract Value

\$425,000

Company Role

Prime

Current POCs

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VILLAGE OF ESTERO COMPREHENSIVE VULNERABILITY ASSESSMENT & ADAPTATION PLAN

Village of Estero | May 2025 - Present

Project Overview

APTIM is conducting a comprehensive vulnerability assessment for the Village of Estero, funded through a HUD CDBG-DR Grant via Lee County. The project evaluates risks from storm surge, rainfall flooding, sea level rise, drought, high wind, extreme heat, and wildfire — producing a multi-hazard VA that includes stormwater model updates, critical infrastructure mapping, flood vulnerability analysis, and conceptual mitigation projects.

Project Description

The Estero VA is the most current active project demonstrating APTIM's VA methodology, including updating hydrological data and climate projections in the stormwater model, building a geospatial database mapping community assets, flood certificate coordination for residents, and developing conceptual mitigation projects evaluated for return on investment and feasibility using the StormWise model. The multi-hazard scope (including rainfall and extreme heat — key stressors for Glades County) and the emphasis on conceptual project development directly applicable to Tasks 2–5. Lara Wakefield is actively contributing to this project alongside the core VA team.

Project Success

- Plan adopted by elected officials confirms quality of policymaker presentation materials (Task 6 requirement)
- Active project confirming team availability and current application of VA methodology
- Multi-hazard scope (including inland flooding and extreme heat) directly applicable to Glades County's non-coastal context
- StormWise stormwater model integration provides quantitative basis for conceptual project assessment in Task 5

- CDBG-DR funding management demonstrates ability to deliver under federal grant compliance requirements similar to CHNEP
- Active community engagement program (storymaps, flood certificate program) applicable to Glades County stakeholder outreach



Schedule Control

APTIM organized the work around VA findings, stormwater model inputs, focus areas, public and stakeholder engagement, concept screening, project ranking, funding strategy, and implementation planning.

Quality Control and Assurance

Sensitivity findings, focus area maps, asset lists, project concepts, ranking criteria, funding sources, readiness requirements, and implementation tables were reviewed for consistency.

Problems Encountered

Preliminary FEMA flood maps became effective midway through the project, creating the need to reassess flood exposure results and address property-level elevation data gaps within the updated flood zones.

Solutions/Corrective Actions

The project team rapidly updated the analysis using the revised FEMA mapping and collected elevation certificates for affected properties to validate elevations, close data gaps, and maintain the accuracy of the vulnerability assessment.

Adaptation Planning

Client

Pompano Beach

Contract Value

\$195,000

Company Role

Prime

Current POCs

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POMPANO BEACH ADAPTATION PLAN

Pompano Beach, FL | 2025

Project Overview

APTIM recently supported a coastal Florida municipality in transitioning from a completed flood vulnerability assessment to a Resilient Florida–compliant Adaptation Plan focused on implementation readiness. Building on the assessment, APTIM conducted a structured adaptive capacity review that evaluated institutional readiness, capital planning alignment, asset management practices, regulatory tools, and funding pathways. This analysis ensured that proposed strategies were not only technically sound, but also feasible within the City’s governance structure, staffing capacity, and fiscal framework. APTIM paired this internal review with a robust stakeholder engagement process that included steering committee workshops, department interviews, and interactive public prioritization sessions designed to identify community risk tolerance, equity considerations, and infrastructure performance expectations. This dual approach allowed the City to move beyond conceptual strategies toward a prioritized portfolio of projects grounded in operational realities and community values.

Project Description

Through this process, APTIM translated vulnerability findings into funding-ready project concepts, including planning-level designs, cost ranges, and implementation pathways aligned with state and federal eligibility criteria. By integrating stakeholder priorities, adaptive capacity findings, and capital improvement planning constraints, APTIM developed a strategy framework that positioned the City to pursue near-term grant funding while sequencing longer-term infrastructure investments. The final plan provided decision-makers with a defensible, transparent roadmap

Approach

This approach is directly applicable to transportation infrastructure planning, as the integration of adaptive capacity review, stakeholder coordination, and funding-aligned project development provides a defensible framework for prioritizing roadway, drainage, and corridor resilience investments consistent with FDOT hardening, mobility continuity, and lifecycle asset management objectives.

linking flood risk reduction to funding opportunities, ensuring projects could advance efficiently from planning to design and implementation. This approach mirrors the scope and objectives of the City of Pompano Beach Adaptation Plan, which emphasizes adaptive capacity assessment, prioritization of needs, and development of implementable strategies consistent with the Florida Adaptation Planning Guidebook.

Project Success

- Produced a prioritized adaptation portfolio aligned with institutional capacity and CIP timelines
- Developed conceptual projects with cost ranges and funding eligibility mapping
- Secured strong interdepartmental buy-in through structured steering committee engagement
- Incorporated public priorities through interactive asset-ranking exercises
- Positioned the City to pursue Resilient Florida, FEMA BRIC, and state infrastructure funding
- Delivered a plan adopted by elected officials as the basis for future resilience investments.



Schedule Control

APTIM organized the plan around adaptive capacity review, steering committee workshops, department interviews, public input, strategy development, cost/funding review, and decision-maker materials.

Quality Control and Assurance

Adaptive capacity findings, project descriptions, cost ranges, funding eligibility, implementation timing, and public-facing narrative were reviewed for consistency with the Florida Adaptation Planning Guidebook.

Problems Encountered

The process required balancing public priorities, institutional capacity, capital planning constraints, and grant eligibility.

Solutions/Corrective Actions

APTIM used interactive prioritization, funding-fit screening, and CIP alignment to produce an implementation-ready adaptation portfolio.

Vulnerability Assessment Adaptation Plan

Client

Okaloosa County as sub to
Jacobs

Contract Value

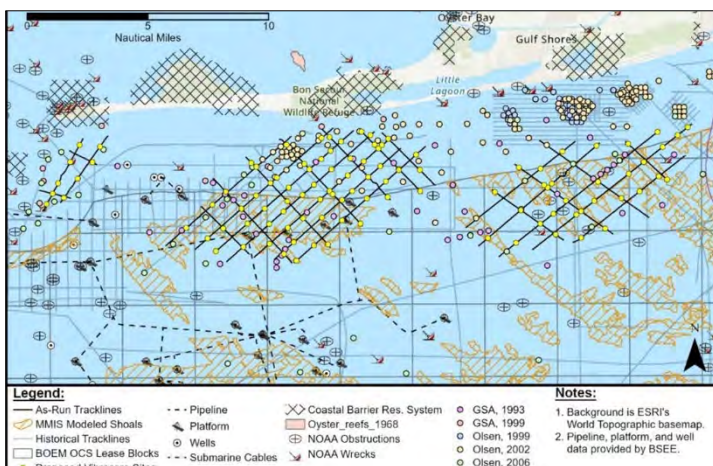
\$80,000

Company Role

Subconsultant

Current POCs

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OKALOOSA COUNTY VULNERABILITY ASSESSMENT & ADAPTATION PLAN

Okaloosa County, Florida | 2024-2025

Project Overview

This project aims to create a countywide, including municipal, vulnerability assessment and adaption plan as part of an initiative to identify and mitigate risks posed by environmental, social, and

economic factors that affect the County.

Project Description

Okaloosa County, in the Florida Panhandle, is highly vulnerable to natural hazards such as hurricanes, flooding, and sea-level rise, funded through the Florida Department of Environmental Protection's Resilient Florida Program.

APTIM as a subconsultant to Jacobs is working to produce a comprehensive vulnerability assessment and an adaptation plan consistent with the Florida Adaptation Planning Guidebook and Okaloosa County's direct needs.

APTIM's role is to collaborate closely with Jacobs, plan and facilitate public meetings, and assist with initial data requests. APTIM will also outline the data compiled and data gaps, create context maps, and provide comprehensive feedback, ensuring the quality and accuracy of the project's outcomes.

APTIM is working with Jacobs to determine the methodological approach for assessment, reviewing the list of assets and hazards, and providing feedback. APTIM also reviews context maps, provides input, attends necessary meetings (via Teams), and coordinates with Jacobs throughout the tasks.

APTIM is also working with Jacobs on the draft adaptation plan report (including assistance with cost analysis, funding, etc.), collaborating to determine adaptation strategies for identified vulnerable assets and focus areas.



Schedule Control

APTIM used milestone tracking, regular coordination meetings, and early internal reviews to keep technical tasks and deliverables on schedule

Quality Control and Assurance

Senior technical staff independently reviewed GIS data, analyses, maps, and reports for accuracy, consistency, and clarity.

Problems Encountered

Hazard rasters developed by another consultant contained inaccuracies that could have affected the vulnerability results.

Solutions/Corrective Actions

APTIM's experienced technical team identified and corrected the hazard raster errors through rigorous QC and deep experience in VAs.

Vulnerability Assessment Adaptation Plan

Client

Escambia County, FL

Contract Value

\$95,000

Company Role

Subconsultant

Current POCs

Tanya Gallagher
Jacobs

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ESCAMBIA COUNTY VULNERABILITY ASSESSMENT & ADAPTATION PLAN

Escambia County | March 2025

Project Overview

APTIM, in collaboration with Jacobs Engineering Group Inc., conducted a comprehensive Vulnerability Assessment for Escambia County. The project evaluated the vulnerabilities of the unincorporated areas of Escambia County to various climate change stressors, including sea level rise, storm surge, and flooding, pursuant to Section 380.093, Florida Statutes (F.S.).

Project Description

This assessment was part of the Resilient Florida Planning Grant initiative and aimed to inform future grant opportunities and resilience planning. The project involved acquiring and analyzing critical data, including topographic and flood scenario data, ensuring compliance with GIS Data Standards. Detailed modeling assessed the impact of various flood scenarios on infrastructure and communities. Sensitivity analysis evaluated the impact on assets, considering flood severity and assigning risk levels. Public outreach included multiple meetings to gather input and present findings. The final report provided actionable recommendations for capital improvement projects and adaptation measures.

Project Success

- Identified high-risk areas and assets, providing a clear understanding of vulnerabilities.
- Conducted three public meetings, gathering valuable input and increasing community awareness.
- Mapped and analyzed critical and regionally significant assets, prioritizing them for resilience planning.



Schedule Control

APTIM coordinated parallel data, modeling, risk, and adaptation-planning tasks using defined milestones and automated GIS workflows.

Quality Control and Assurance

Standardized data checks and independent senior reviews ensured consistent, traceable, and defensible results.

Problems Encountered

Over 4 million asset data points received from multiple agencies varied in format, accuracy, ownership, and completeness.

Solutions/Corrective Actions

APTIM streamlined and synthesized the data into clear priorities through automated GIS analysis framework and provided actionable recommendations that the County could use for planning, funding, and implementation.

Vulnerability Assessment

Client

East Central Florida Regional
Planning Council

Contract Value

\$40,000

Company Role

Subconsultant

Current POCs

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CENTRAL FLORIDA MILITARY INSTALLATION RESILIENCE REVIEW (MIRR)

East Central Florida | 2022 – 2024

Project Overview

The Central Florida Military Installation Resilience Review (MIRR) is an effort focused on enhancing the resilience of military

installations in the Central Florida Region. It is designed to address vulnerabilities that these installations might face, such as environmental, infrastructure, and climate-related risks. These vulnerabilities can have a huge impact on operational readiness and sustainability.

Project Description

APTIM, as a subconsultant to Jacobs, is assisting in developing materials for the vulnerability assessment by collecting data specific to shoreline erosion and potentially impaired water quality areas and performing the initial evaluation for that sector. Attending the methodology working session, APTIM is advising on refining the approach and assisting with the presentation of the methodology, as needed.

APTIM will review Jacobs's results for short-, medium-, and long-term impacts and consequences for risks and provide feedback, particularly on erosion, energy, and water supply. Once data is collected, APTIM will create two white papers: *Playing the Long Ball: A Preparation Strategy for Future Erosion Impacts* and *Practical Solutions for Utilities to Address Climate-Driven Water Quality Changes*.



Schedule Control

APTIM coordinated methodology sessions, technical review periods, data requests, and white paper development around the prime team schedule and stakeholder availability.

Quality Control and Assurance

The team reviewed regional findings through a mission-assurance lens, checking that infrastructure risk narratives were clear, actionable, and appropriate for multiple audiences.

Problems Encountered

The work involved multiple installations, jurisdictions, infrastructure systems, data limitations, security sensitivity, and stakeholder priorities.

Solutions/Corrective Actions

APTIM focused deliverables on practical risk-reduction themes and implementable strategies rather than unnecessary technical detail.

Waterway Dredging

Client

Charlotte County, FL

Contract Value

\$80,883.94

Company Role

Prime

Current POCs

Michael Benjamin
Project Manager, Public Works
Engineering Division
941 575 3639
Michael.Benjamin@CharlotteCountyFL.gov



MANCHESTER WATERWAY
MAINTENANCE DREDGING

Charlotte County | March 2026 - Present

Project Overview

The Manchester Waterway dredging project focuses on addressing sediment accumulation within Lewis Creek and associated interior waterways, including Christopher Canal, Knox Canal, Bay Harbor Canal, and Sweet Bay Canal, where recent storm events have accelerated shoaling and reduced channel functionality.

Project Description

APTIM is currently developing the dredge design and a standardized design template to support the County's permitting and implementation efforts, establishing consistent channel geometry, typical sections, and design criteria across the project area to streamline regulatory coordination and construction planning. The design includes a temporary upland spoil area for dredged material with contractor-provided containment and disposal. It also accommodates both mechanical and hydraulic dredging methods to support efficient implementation.



Schedule Control

APTIM is managing project activities through a defined schedule that included survey data collection, dredging quantity calculations, permit coordination, design development, and preparation of construction documents to meet Charlotte County's project milestones.

Quality Control and Assurance

Survey data, dredging limits, volume calculations, and design deliverables are independently reviewed to verify accuracy, consistency, and compliance with County requirements and applicable permitting criteria.

Problems Encountered

Sedimentation patterns and varying channel conditions created challenges in accurately defining dredging limits and estimating maintenance dredging quantities.

Solutions/Corrective Actions

APTIM is using detailed hydrographic survey data, performed quality checks on volume calculations, and coordinated closely with County staff to refine dredging limits and develop an efficient dredging plan that addressed navigation concerns while minimizing project impacts.



VII. Experience and Capabilities

Describe Your Experience and Capabilities in the Following Areas

A. Vulnerability Assessment Experience

APTIM's local offices have established a consortium of excellence to support delivery of the most useful **vulnerability assessments and resilience plans** in compliance with the Resilient Florida grant program guidance. APTIM's resilience team not only has experience completing compliant vulnerability assessments but has experience **pushing beyond requirements to incorporate a greater array of resilience metrics**. Through our work on the Miami Dade Resilience Hubs Energy Vulnerability Assessment, we have mastered integrating energy resilience into overall vulnerability assessments and stand ready to employ results from this study into the County's vulnerability assessment. Our team also stands ready to employ methods to better capture residential resilience, as learned through our hazard mitigation work with the New York City Housing Authority (NYCHA). APTIM works to strengthen communities, so they are prepared to resist climate change, bounce back after crisis, and rapidly recover with minimal assistance.

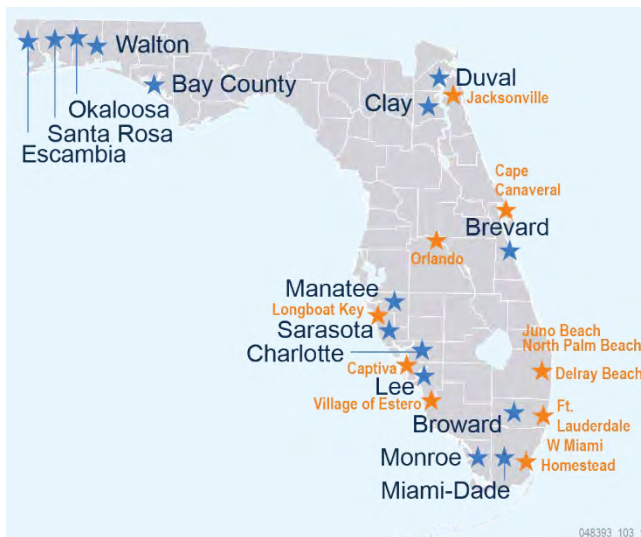


Figure VII-1. APTIM's Municipal and County-Level Vulnerability Assessments

and collaborative opportunities. Our team consists of a variety of climate experts who specialize in local hazard modeling, assessments, and adaptation. Experts have experience modeling local flood conditions and employing rainfall predictions and change factors into scenario planning. APTIM has successfully completed **17 state-compliant vulnerability assessments, and 17 adaptation plans across thirteen counties (Figure VII-1)**.

APTIM employs a well-established methodology for assessments, ensuring normalized and unbiased results (**Figure VII-2**). Our proven process is known as **AVA and stands for Automate, Verify, and Activate**.

We have planned for and implemented programs that mitigate impacts to critical assets, manage economic stressors and protect people. We understand the process of building resilience from assessment to implementation to iterative performance improvements and leveraging grant funding to achieve greater outcomes.

Experience with Vulnerability Assessments

The APTIM Team has a comprehensive understanding of vulnerability assessments and resilience planning best practices, including the criteria of regional and national ranking systems, relevant policy, resilience plans and research,

Data collection, mapping, analysis, ground-truthing and impact quantification have been refined and automated. Results of the automation process then go through a verification process involving extensive QA/QC, a deep dive into patterns, and a ground-truthing element where results are contextualized based on stakeholder and public experience.



Figure VII-2. AVA Methodology

Local Knowledge will be critical for ground-truthing the results of the assessment and developing practical, feasible and detailed strategies for resilience.

Findings are then organized and reported in a tangible way that activates municipality discussion and implementation, ensuring all results are actionable. The mature network of relationships available to support this project extends from grassroots social organizations in the unincorporated area, to in-house staff at the South Florida Water Management District, research and policy development partners at the United States Army Corps of Engineers (USACE) and the Florida Department of Transportation (FDOT).

B. Critical Asset Data Curation and Analysis Experience

APTIM offers extensive experience in the curation, refinement, and analysis of critical asset data in support of climate vulnerability assessments, resilience planning, and Adaptation Action Area (AAA) planning.

Our teams have implemented data workflows that mirror and expand on the processes requested in this RFP, beginning with compilation of baseline critical asset datasets and progressing through independent review, refinement, verification, and analytical preparation for exposure, sensitivity, and adaptation planning tasks.

C. Critical Asset Sensitivity Analysis Experience.

APTIM has extensive experience conducting critical asset sensitivity analyses to support climate vulnerability assessments, flood risk studies, and Adaptation Action Area (AAA) planning. Our teams have implemented methodologies that directly align with the requirements of this RFP, transitioning from basin-level or coarse analyses to asset-specific sensitivity scoring consistent with the Florida Adaptation Planning Guidebook.

D. Adaptation Action Area Identification and Prioritization Experience

APTIM has substantial experience identifying, mapping, and prioritizing Adaptation Action Areas (AAAs) and analogous climate-risk focus areas for coastal and inland communities. Our approach is grounded in the use of refined critical asset data, exposure and sensitivity analyses, and flood modeling outputs consistent with the Florida Adaptation Planning Guidebook and Resilient Florida Program expectations.

E. Adaptation Action Area Plan Development Experience

APTIM has deep experience developing comprehensive, implementation-focused adaptation plans for high-risk areas that are equivalent to the Adaptation Action Area (AAA) Plans required by this RFP. Our teams translate vulnerability and AAA prioritization results into detailed, actionable plans that identify specific projects, conceptual designs, costs, and implementation pathways for priority areas.

This experience is directly aligned with Task 5 of the Glades County scope, which requires the Consultant to prepare detailed Adaptation Action Area Plans for the top three priority AAAs, organized around priority impacted critical assets and tailored strategies and projects for each.

F. Technical Report Writing and Proofing Experience

APTIM has extensive experience preparing clear, well-structured, and technically rigorous reports and technical memoranda for climate vulnerability assessments, Adaptation Action Area (AAA) planning, and related resilience initiatives. Our teams routinely develop multi-chapter reports, appendices, and supporting technical memoranda that are accessible to both technical and non-technical audiences, and we apply a formal internal quality control (QC) and quality assurance (QA) process prior to submittal.

G. Policymaker Presentation Development and Implementation Experience

APTIM has substantial experience developing and delivering clear, decision-oriented presentations for elected officials, appointed boards, and senior policymakers. Our teams routinely translate complex technical analyses—such as vulnerability assessments, AAA designations, and adaptation project portfolios—into concise, visually compelling briefings that support formal actions such as plan adoption, policy updates, and funding decisions.

This experience is closely aligned with the County's expectations that the Consultant will prepare and deliver presentations to the Glades County Board of County Commissioners (BOCC) to support review and approval of Adaptation Action Area plans and their incorporation into the final Comprehensive Vulnerability Assessment.

H. General Project Management Experience

APTIM has extensive experience providing comprehensive project management for multi-task, multi-stakeholder planning efforts similar in scope and complexity to the Glades County Adaptation Action Planning Project. Our project managers and technical leads routinely oversee projects that involve structured task sequencing, fixed-fee budgets, defined deliverables and review cycles, and coordination among County staff, regional partners, and State agencies.

Our project management approach aligns closely with the County's requirements in this RFP, including organized project initiation, schedule and deliverable control, structured meeting facilitation, quality control/assurance, and clear documentation and reporting.



VIII. Volume of Work – Total of Payments Received From County Within the Past 24 Months*



Tab VIII: Volume of Work

Volume of Work – Total of Payments Received from County Within the Past 24 Months*

APTIM has received \$96,264.98 from the County in the last 24 months. Please see Tab XII, Part V – Proposal Submittal Signature Form, Section 3B for this information.





IX. Location



Tab IX: Location

Describe the Prime and Sub-Consultants responsiveness as it relates to the firm's location to the project.

APTIM is fully committed to delivering unparalleled responsiveness, seamless collaboration, and high-quality outcomes for this project. To ensure optimal support for Charlotte County, Glades County, and the Coastal & Heartland National Estuary Partnership (CHNEP), **APTIM will utilize our established Tampa, Florida office as the primary base of operations** and project management hub for this engagement.

Our Tampa office provides the ideal geographic proximity to both Charlotte and Glades Counties, ensuring that our team meets and exceeds the County's evaluation criteria regarding location.

This strategic positioning enables APTIM to provide the highly responsive, localized service typical of a local firm, backed by the robust resources of our broader organizational network.

Rapid Deployment and On-Site Availability The geographic proximity of our Tampa base to the Southwest Florida and Heartland regions ensures that our project management team and technical subject matter experts can easily travel to the project area for scheduled milestones and rapid-response ad-hoc requests. Because the project footprint is within a short driving distance, APTIM can guarantee same-day or next-day on-site presence whenever necessary, entirely eliminating the travel delays, high transit costs, and logistical complexities associated with out-of-state or distant firms.

Facilitating Seamless Project Management and Stakeholder Engagement The scope of services requires consistent and effective engagement, including monthly coordination and final leadership presentations. Operating out of Tampa allows our Project Manager and key personnel to effortlessly conduct and attend critical in-person meetings, including the initial Kick-off Meeting, critical stakeholder vetting sessions, and routine monthly team meetings.

Furthermore, as the project culminates in the integration of the Adaptation Action Area (AAA) Plans into the Final Vulnerability Assessment, our team will be readily available to travel to Glades County to confidently deliver the required leadership presentations. Our proximity ensures our team is physically present to support the County and CHNEP when requesting final approval of the appendices from the Board of County Commissioners (BOCC).

APTIM will not utilize the assistance of a subconsultant for this pursuit.



X. Litigation



Have You Been Named as a Defendant or Co-Defendant in a Lawsuit in the Last Five (5) Years?

While operating a large environmental services business, APTIM has been named in a few lawsuits. APTIM's litigation history for the last five (5) years begins on the following page. None of these cases will materially affect APTIM's operations.



Aptim Environmental & Infrastructure, LLC						
Matter Name	Type of Incident	Date of Incident	What was the initial circumstance for this action?	Jurisdiction	Case Number	Final Outcome
1. Blankenberg, James v. Campbell Development, LLC, Aptim Environmental & Infrastructure, Inc., et al.; 2. Brewer, Ryan v. Campbell Development, LLC, Aptim Environmental & Infrastructure, Inc., et al.; 3. Duckworth, Joseph v. Campbell Development, LLC, Aptim Environmental & Infrastructure, Inc., et al.; 4. Esteves, Edgar v. Campbell Development, LLC, Aptim Environmental & Infrastructure, Inc., et al.; 5. Ford, Steven v. Campbell Development, LLC, Aptim Environmental & Infrastructure, Inc., et al.; 6. Forreth, Ian v. Campbell Development, LLC, Aptim Environmental & Infrastructure, Inc., et al.; 7. Fralick, Michael v. Campbell Development, LLC, Aptim Environmental & Infrastructure, Inc., et al.; 8. Kinnicutt, Travis v. Campbell Development, LLC, Aptim Environmental & Infrastructure, Inc., et al.; 9. Kliegl, Daniel v. Campbell Development, LLC, Aptim Environmental & Infrastructure, Inc., et al.; 10. Ledrew, Christopher v. Campbell Development, LLC, Aptim Environmental & Infrastructure, Inc., et al.; 11. Lewis, Douglas v. Campbell Development, LLC, Aptim Environmental & Infrastructure, Inc., et al.; 12. Neizil, Jacob v. Campbell Development, LLC, Aptim Environmental & Infrastructure, Inc., et al.; 13. O'Dell, Fredy. Campbell Development, LLC, Aptim Environmental & Infrastructure, Inc., et al.; 14. O'Neal, Joshua v. Campbell Development, LLC, Aptim Environmental & Infrastructure, Inc., et al.; 15. Rahder, Andrew v. Campbell Development, LLC, Aptim Environmental & Infrastructure, Inc., et al.; 16. Whitman, Richard v. Campbell Development, LLC, Aptim Environmental & Infrastructure, Inc., et al.; 17. Witten, Nicholas v. Campbell Development, LLC, Aptim Environmental & Infrastructure, Inc., et al.;	Alleged Negligent Misrepresentation	2019 and 2021	Multiple suits in the Superior Court of the Virgin Islands alleging that defendants engaged in intentional or negligent misrepresentation or misrepresentation by interference, fraud, breach of contract, negligence by Defendants Witt O'Brien, APTIM, AECOM, Navigation and Patriot in contracting with the Campbell Defendants, and that Virgin Islands Housing Finance Authority improperly contracted with Defendants O'Brien, APTIM and AECOM. These companion cases arise out of the same set of facts and circumstances and were initially filed as one lawsuit in 2019 and severed in 2021.	Superior Court of the Virgin Islands, Division of St. Croix	SX-19-CV-159	Resolved
Patriot Response Group, LLC v. Aptim Environmental & Infrastructure, LLC, Domingo Camarano, Jonathon Hunt and Lissa Metoyer	Alleged Contract Breach/Dispute	2021	Patriot Response Group, LLC filed suit against APTIM for nonpayment of funds from work in the USVI.	19th Judicial District Court for the Parish of East Baton Rouge, Louisiana	C-704230	Resolved
Hunt, Guillot & Associates, LLC v. Aptim Environmental & Infrastructure	Alleged Contract Breach/Dispute	2021	An Aptim subcontractor filed suit against Aptim Environmental & Infrastructure alleging breach of contract for nonpayment in relation to work completed after Hurricane Harvey. In turn, Aptim added the City of Houston as an additional defendant in order to seek payment for that and other work.	District Court of Harris County, TX	2021-46988	Resolved

Matter Name	Type of Incident	Date of Incident	What was the initial circumstance for this action?	Jurisdiction	Case Number	Final Outcome
William Grit vs Koch Remediation and Environmental Services, LLC, Global Remediation and Environmental Services, LLC, Aptim Environmental and Infrastructure Inc. f/k/a CBI Environmental and Infrastructure Inc, Kennedy Jenks Consulting	Alleged Negligence	2021	William Grit alleges Aptim f/k/a CB&I failed to test wells on his property from 2014-2018 resulting in personal harm.	District Court of Shawnee County, Kansas	6919993	Resolved
Chitolie, Allan, d/b/a Chitolie Trucking Services v. Aptim Environmental & Infrastructure, LLC	Alleged Contract Breach/Dispute	2022	Allan Chitolie, d/b/a Chitolie Trucking Services filed suit against Aptim Environmental & Infrastructure, LLC alleging unpaid invoices in the amount of \$110,000.	Superior Court of the Virgin Islands, District of St. Croix	SX-2022-CV-00448	Resolved
Entergy New Orleans v. Coastal Protection and Restoration Authority, Great Lakes Dredge & Dock Company, LLC of Louisiana, Aptim Corp., et al.	Alleged Negligence	2023	Entergy New Orleans filed suit against CPRA, Great Lakes Dredge & Dock Company, APTIM, GeoEngineers, and Southern Shores Engineering due damage to Entergy's pipeline that allegedly resulted from the "block shift" that occurred during construction of Marsh Containment Area No. 2 on the Golden Triangle Project. Aptim retained by CPRA to design the Project; Southern Shores was the engineer of record for the Project and a sub to APTIM; Geo was a sub to APTIM as the geotechnical engineer on the Project and Great Lakes was retained by CPRA to construct the project.	19th Judicial District Court for the Parish of East Baton Rouge, Louisiana	C-731035	Ongoing
Aptim Environmental & Infrastructure, LLC v. Virgin Islands Government Hospitals and Health Facilities Corporation	Alleged Breach of Contract	2023	Suit against the USVI hospital entity for breach of contract and bad faith "termination" of a substantially completed contract.	USVI Superior Court, St. Croix Division	SX-2023-CV-00287	Ongoing
USA and State of NJ (ex rel. Lee Wasserman) v. ICF International, Gilbane, Inc., Aptim Environmental & Infrastructure, LLC, et al.	Alleged Negligence	2024	Lead remediation specialist alleges improprieties with regard to work after Hurricane Sandy (2012) pursuant to the New Jersey Reconstruction, Rehabilitation, Elevation and Mitigation ("RREM") program.	U.S. District Court-District of New Jersey	2:18-cv-10330	Ongoing
Dacosta, Christine Ophelia v. Michael Jake Goutreaux, Donlen Trust, Aptim Holding Corporation and Aptim Corp.	Auto	2025	Auto accident involving APTIM insured driver and pedestrian in crosswalk.	Circuit Court of the Eighteenth Judicial Circuit Court, Seminole County, Florida	2025-CA-001032	Ongoing
Crossman, Robyn, et al. v. Waste Connections, Aptim Environmental & Infrastructure, LLC, et al.	Alleged Negligence	2025	Multiple Petitions for Damages filed against several defendants relating to alleged noxious odors emanating from the Jefferson Parish, Louisiana Landfill. These companion cases arise out of the same set of facts and circumstances and are consolidated with the court accordingly.	24th Judicial District Court for the Parish of Jefferson, Louisiana	865-706	Ongoing



XI. Minority Business



Tab XI: Minority Business Enterprise

Certified MBE, Sub-Consultants Certified MBE, and/or Non-Certified MBE.

APTIM is not a Certified or Non-Certified MBE. APTIM will not be utilizing a subconsultant for this project. All services can be provided in-house.





XII. Submittal Forms



Tab XII: Submittal Forms

PART IV - SUBMITTAL FORMS PROPOSAL SUBMITTAL SIGNATURE FORM

1.	Project Team Name and Title	Years experience	City of office individual will work out of for this project	City individual's office is normally located	City of individual's residence						
	Samantha Danchuk, Project Manager	20	Boca Raton, FL	Boca Raton	Boca Raton						
	Ivette Vidal, Deputy Project Manager	20	Boca Raton, FL	Boca Raton	Boca Raton						
	Lara Wakefield, Risk Assessment	5	Tampa, FL	Tampa	Tampa						
	Cigdem Ozkan, Resilience Engineer	11	Boca Raton, FL	Boca Raton	Charlotte, NC						
	Heather Vollmer, GIS Analyst	25	Boca Raton, FL	Boca Raton	Coral Springs						
	Khurshid Jahan, H&H Modeler	4	Boca Raton, FL	Boca Raton	Boca Raton						
	James Barrack, Water Resource/Stormwater Mgmt.	46	Canton, MA	Canton	Canton						
	Katy Brown, Marine Habitat Characterization	14	Tampa, FL	Boca Raton	Jupiter						
	Edwin Fortier, Lead Cost Estimator	11	Baton Rouge, LA	Baton Rouge	Baton Rouge						
2.	Magnitude of Company Operations										
	A) Total professional services fees received within last 24 months:			\$ ~35M							
	B) Number of similar projects started within last 24 months:			3 see note below							
	C) Largest single project to date:			\$ 145M (Disaster Recovery)							
3.	Magnitude of Charlotte County Projects										
	A) Number of current or scheduled County Projects			4							
	B) Payments received from the County over the past 24 months (based upon executed contracts with the County):			\$ 96,264.98							
4.	Sub-Consultant(s) (if applicable)	Location	% of Work to be Provided	Services to be Provided							
	N/A										
5.	Disclosure of interest or involvement: List below all private sector clients with whom you have an active pending contract and who have an interest within the areas affected by this project. Also, include any properties or interests held by your firm, or officers of your firm, within the areas affected by this project.										
	Firm	Address									
	Phone # N/A	Contact Name									
	Start Date	Ending Date									
	Project Name/Description										

NAME OF FIRM Aptim Environmental & Infrastructure, LLC

(This form must be completed and returned)

Note: APTIM has initiated the Charlotte County THIRA project, (1) fishing pier rehabilitation project in last 24 months.

We are currently engaged in multiple marine structure projects.

6. Minority Business:	Yes _____ No <u>X</u> _____
The County will consider the firm's status as an MBE or a certified MBE, and also the status of any sub-contractors or sub-consultants proposed to be utilized by the firm, within the evaluation process.	
Comments or Additional Information:	
None	

The undersigned attests to his/her authority to submit this proposal and to bind the firm herein named to perform as per contract, if the firm is awarded the Contract by the County. The undersigned further certifies that he/she has read the Request for Proposal, Terms and Conditions, Insurance Requirements and any other documentation relating to this request and this proposal is submitted with full knowledge and understanding of the requirements and time constraints noted herein.

By signing this form, the proposer hereby declares that this proposal is made without collusion with any other person or entity submitting a proposal pursuant to this RFP.

In accordance with section 287.135, Florida Statutes, the undersigned certifies that the company is not on the Scrutinized Companies with Activities in Sudan List, the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List, and does not have business operations in Cuba or Syria (if applicable) or the Scrutinized Companies that Boycott Israel List, or is not participating in a boycott of Israel.

As Addenda are considered binding as if contained in the original specifications, it is critical that the Consultant acknowledge receipt of same. The submittal may be considered void if receipt of an addendum is not acknowledged.

Addendum No. _____ Dated _____ Addendum No. _____ Dated _____ Addendum No. _____ Dated _____
Addendum No. _____ Dated _____ Addendum No. _____ Dated _____ Addendum No. _____ Dated _____

Type of Organization (please check one):	INDIVIDUAL CORPORATION	☐	PARTNERSHIP	☐	
		☒	JOINT VENTURE	☐	
Aptim Environmental & Infrastructure, LLC		561.391.8102			
Firm Name		Telephone			
N/A		77-0589932			
Fictitious or d/b/a Name		Federal Employer Identification Number (FEIN)			
6401 Congress Avenue, Suite 140					
Home Office Address					
Boca Raton, FL 33487		24			
City, State, Zip		Number of Years in Business			
725 US Highway 301 South, Tampa, FL 33619					
Address: Office Servicing Charlotte County, other than above					
Samantha Danchuk, Climate and Coastal Resilience Lead		561.532.5882			
Name/Title of your Charlotte County Rep.		Telephone			
Samantha Danchuk, Climate and Coastal Resilience Lead					
Name/Title of Individual Binding Firm (Please Print)					
		6/17/2026			
Signature of Individual Binding Firm		Date			
samantha.danchuk@aptim.com					
Email Address					

(This form must be completed & returned)

DRUG FREE WORKPLACE FORM

The undersigned vendor in accordance with Florida Statute 287.087 hereby certifies that Aptim Environmental & Infrastructure, LLC
does: (name of business)

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

As the person authorized to sign the statement, I certify that this firm complies fully with the above requirements.



Proposer's Signature

8/17/2026

Date

NAME OF FIRM Aptim Environmental & Infrastructure, LLC

(This form must be completed and returned)

**HUMAN TRAFFICKING AFFIDAVIT
for Nongovernmental Entities Pursuant To FS. §787.06**

Charlotte County Contract #20260441

The undersigned on behalf of the entity listed below, (the "Nongovernmental Entity"), hereby attests under penalty of perjury as follows:

1. I am over the age of 18 and I have personal knowledge of the matters set forth except as otherwise set forth herein.
2. I am an officer or representative of the Nongovernmental Entity and authorized to provide this affidavit on the Company's behalf.
3. Nongovernmental Entity does not use coercion for labor or services as defined in Section 787.06, Florida Statutes.
4. This declaration is made pursuant to Section 92.525, Florida Statutes. I understand that making a false statement in this declaration may subject me to criminal penalties.

Under penalties of perjury, I declare that I have read the foregoing Human Trafficking Affidavit and that the facts stated in it are true.

Further Affiant sayeth naught.



Signature

Samantha Danchuk

Printed Name

Climate and Coastal Resilience Lead

Title

Aptim Environmental & Infrastructure, LLC

Nongovernmental Entity

8/17/2026

Date

END OF PART IV

NAME OF FIRM Aptim Environmental & Infrastructure, LLC

(This form must be completed and returned)