

STATEMENT OF QUALIFICATIONS

JEFFERSON PARISH

SOQ 24-020, Coastal Engineering
Consulting Services as needed
Parish Wide
Resolution No. 144205

July 16, 2024

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SINCE 1894

 **FREESE
AND
NICHOLS**

900 Camp Street, Suite 354
New Orleans, Louisiana 70130
504-478-1065 / freeze.com

Cover Letter

July 16, 2024

Mark Buttery, Purchasing Specialist II
Jefferson Parish Purchasing Department
General Government Building
200 Derbigny Street, Suite 4400
Gretna, Louisiana 70053
Electronic submittal via e-Procurement



504-478-1065 | freese.com
900 Camp Street, Suite 354
New Orleans, Louisiana 70130

RE: SOQ 24-020, Coastal Engineering Consulting Services as needed Parish Wide, Resolution No. 144205

Dear Mr. Buttery and Selection Committee Members:

Protecting and restoring Jefferson Parish's beautiful and varied environment is a challenge like no other. Given the wealth and diversity of resources and habitats within the Parish, efforts to protect these resources require a multidisciplinary approach. These efforts could include projects such as marsh and ridge restoration, shoreline stabilization and protection, as well as beneficial use of dredge material, living shoreline design, hydrologic and hydraulic (H&H) modeling, design analysis and reports and biological and environmental assessments of wetlands.

Freese and Nichols, Inc. (FNI) is the ideal choice to continue to partner with Jefferson Parish for many reasons, including:

» **ACCOUNTABILITY:** FNI is a multi-discipline firm offering the combined experience of 1,200+ professionals with resources available to meet the demands of any size project, as we have proven to Jefferson Parish over the years. Our staff includes engineering and environmental staff members who can provide civil, environmental, geotechnical, structural, H&H, mapping and CAD services to support planning, permitting, design, bidding and construction administration efforts, as well as supplemental visualization, branding and wayfinding services. Our diverse service offerings enable us to deliver unique solutions while still meeting the demands of a fast-paced project schedule. Having provided engineering and environmental services to municipal organizations and entities for 130 years, we understand that projects range in size and scope. Our commitment to our clients is that all projects and services are performed to the best of our ability with the best interest of our clients in mind.

» **DEPTH OF EXPERIENCE:** FNI has appreciated the opportunity to serve Jefferson Parish under the past two coastal services contracts, especially providing services relating to project planning; grant identification; engineering design of the Barataria marsh terraces; and interpretive signage for the Bucktown marsh and park complex. Beyond services offered to date, FNI has experience in a diverse and comprehensive range of coastal and engineering services, including coastal engineering for dredging, navigation and shoreline infrastructure. These services include shoreline habitat restoration, conservation and preservation, environmental permitting, regulatory compliance, third-party EIS-NEPA, ecological assessments and coastal zone planning and management and monitoring.

» **REGIONAL OFFICE AND LOCAL PARTNERS:** Our main point-of-contact for services anticipated under this contract will continue to be our **Location Manager Nina Reins, PhD, PE, PMP**. Nina is a resident of New Orleans with notable experience in the planning, design and implementation of coastal restoration and protection projects in Louisiana. She also has a strong history working with Jefferson Parish, supporting the Coastal Impact Assistance Program (CIAP) and Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA) projects and performing post-hurricane Katrina recovery. FNI is supported by a team of partner firms who are highly regarded both locally and in their respective fields of expertise, HydroTerra Technologies, LLC and Eustis Engineering LLC. These teaming partners not only complement our services, but also add depth and breadth to capabilities allowing us to provide the highest quality of service to Jefferson Parish. Both firms have supported FNI and Jefferson Parish on the ongoing Upper Barataria Terracing project. We have also added a recently founded woman-owned small business, Marais Consultants, LLC to our team, that offers unique community outreach expertise.

We are excited about continuing our work with Jefferson Parish and our proven team. Please feel free to contact us directly if you have any questions regarding this qualifications package.

Sincerely,

A blue ink signature of Cody Cockroft, written in a cursive style.

Cody Cockroft, PE
Principal-in-Charge
832-370-7603 | cody.cockroft@freese.com

A blue ink signature of Nina Reins, written in a cursive style.

Nina Reins, PhD, PE, PMP
Environmental Engineer/Project Manager
504-209-7578 | nina.reins@freese.com

TEC Professional Services Questionnaire

Freese and Nichols, Inc.


TEC Professional Services Questionnaire

Technical Evaluation Committee (TEC) Questionnaire

Instructions

- The Technical Evaluation Committee (TEC) Questionnaire shall be used for professional services related to architecture, engineering, or survey projects.
- **The TEC Questionnaire should be completely filled out. Complete and attach ALL sections. Insert “N/A” or “None” if a section does not apply or if there is no information to provide.**
- Questionnaire must be signed by an authorized representative of the Firm. Failure to sign the questionnaire shall result in disqualification of proposer pursuant to J.P. Code of Ordinances Sec. 2-928.
- All subcontractors must be listed in the appropriate section of the Questionnaire. Each subcontractor must provide a complete copy of the TEC Questionnaire, applicable licenses, and any other information required by the advertisement. Failure to provide the subcontractors' complete questionnaire(s), applicable licenses, and any other information required by the advertisement shall result in disqualification of proposer pursuant to J.P. Code of Ordinances Sec. 2-928.
- If additional pages are needed, attach them to the questionnaire and include all applicable information that is required by the questionnaire.

TEC Professional Services Questionnaire

A. Project Name and Advertisement Resolution Number: Coastal Engineering Consulting Services as needed Parish Wide, SOQ 24-020, Resolution No. 144205																													
B. Firm Name & Address: <div style="display: flex; align-items: center; margin-top: 10px;"><div>Freese and Nichols, Inc. (FNI) 900 Camp Street Suite 354 New Orleans, Louisiana 70130</div></div>																													
C. Name, title and contact information of Principal, as defined in Section 2-926 of the Jefferson Parish Code of Ordinances, who is a registered, licensed architect, professional engineer, or surveyor in the State of Louisiana: Cody Cockroft, PE Vice President/Principal Professional Engineer, Louisiana #PE.0037819 713-600-6832 (office) 832-370-7603 (cell) cody.cockroft@freese.com																													
D. Name and contact information of employee who is a registered and licensed architect, professional engineer, or surveyor in the State of Louisiana in the applicable discipline. A subcontractor may be substituted here only if the advertised Project requires more than one discipline. Nina Reins, PhD, PE, PMP Environmental Engineer/Project Manager Professional Engineer, Louisiana #PE.0033749 504-209-7578 (office) 504-296-5037 (cell) nina.reins@freese.com																													
E. Please provide the number of employees whose primary function corresponds with each category: <table style="width: 100%; border: none; margin-top: 10px;"><tr><td style="width: 33%; vertical-align: top;"><u>51</u> Administrative</td><td style="width: 33%; vertical-align: top;"><u>9</u> Estimators</td><td style="width: 33%; vertical-align: top;"><u>20</u> Specification Writers</td></tr><tr><td><u>12</u> Architects (Licensed)</td><td><u>5</u> Geologists</td><td><u>21</u> Structural Engineers</td></tr><tr><td><u>0</u> Chemical Engineers</td><td><u>5</u> Geotechnical Engineers</td><td><u>161</u> Graduate Engineers</td></tr><tr><td><u>328</u> Civil Engineers</td><td><u>0</u> Interior Designers</td><td><u>66</u> Project Managers</td></tr><tr><td><u>123</u> Construction Inspectors</td><td><u>6</u> Landscape Architects</td><td><u>60</u> Clerical</td></tr><tr><td><u>55</u> Ecologists</td><td><u>0</u> Land Surveyor</td><td><u>2</u> Grant/Funding Specialist</td></tr><tr><td><u>33</u> Electrical Engineers</td><td><u>18</u> Mechanical Engineers</td><td><u>2</u> Sanitary Engineers</td></tr><tr><td><u>222</u> Engineer Intern</td><td><u>20</u> Environmental Engineers</td><td></td></tr><tr><td><u>0</u> Professional Land Surveyors</td><td></td><td><u>1,219</u> TOTAL</td></tr></table>			<u>51</u> Administrative	<u>9</u> Estimators	<u>20</u> Specification Writers	<u>12</u> Architects (Licensed)	<u>5</u> Geologists	<u>21</u> Structural Engineers	<u>0</u> Chemical Engineers	<u>5</u> Geotechnical Engineers	<u>161</u> Graduate Engineers	<u>328</u> Civil Engineers	<u>0</u> Interior Designers	<u>66</u> Project Managers	<u>123</u> Construction Inspectors	<u>6</u> Landscape Architects	<u>60</u> Clerical	<u>55</u> Ecologists	<u>0</u> Land Surveyor	<u>2</u> Grant/Funding Specialist	<u>33</u> Electrical Engineers	<u>18</u> Mechanical Engineers	<u>2</u> Sanitary Engineers	<u>222</u> Engineer Intern	<u>20</u> Environmental Engineers		<u>0</u> Professional Land Surveyors		<u>1,219</u> TOTAL
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F. Is this submittal by a JOINT-VENTURE? Please check: YES NO <input checked="" type="checkbox"/> If marked "No" skip to Section I. If marked "yes" complete Sections G-H.																													

TEC Professional Services Questionnaire

G. If submittal is by JOINT-VENTURE, list the firms participating and outline specific areas of responsibility (including administrative, technical, and financial) for each firm. Please attach additional pages if necessary.		
1. N/A		
2. N/A		
H. Has this JOINT-VENTURE previously worked together? Please check: N/A YES NO		
I. List all subcontractors anticipated for this Project. Please note that <u>all subcontractors must submit a fully completed copy of this questionnaire</u>, applicable licenses, and any other information required by the advertisement. See Jefferson Parish Code of Ordinances, Sec. 2-928(a)(3). Please attach additional pages if necessary.		
Name & Address:	Specialty:	Worked with Firm Before (Yes or No):
1. Eustis Engineering, LLC 3011 28th Street Metairie, Louisiana 70002	Geotechnical Investigations Laboratory Analysis	Yes
2. Hydroterra Technologies, LLC 202 Jacobs Run Scott, Louisiana 70583	Hydrographic and Magnetometer Surveys for Inshore and Near Shore Waters Underground Utilities Location	Yes
3. Marais Consultants, LLC 900 Camp Street Suite 409 New Orleans, Louisiana 70130	Community Engagement Engineering Support	Yes
J. Please specify the total number of support personnel that may assist in the completion of this Project: 50		

TEC Professional Services Questionnaire

K. List the professional in charge, key persons, specialists, and individual consultants anticipated for this Project and provide their relevant information below. If necessary, please attach additional documentation (i.e. resume) that demonstrates the employment history and experience of the Firm's key persons that may assist in the completion of this Project. Please attach additional pages if necessary.
PROFESSIONAL IN CHARGE OF PROJECT:
Name & Title:
Cody Cockroft, PE Vice President/Principal
Project Assignment:
Principal-in-Charge/Principal
Name of Firm with which associated:
Freese and Nichols, Inc.
Years' experience with this Firm:
17 years
Education: Degree(s)/Year/Specialization:
MS/2006/Engineering Management BS/2000/Civil Engineering
Active registration: Year first registered/discipline:
2013/Professional Engineer (PE) Louisiana 2006/Professional Engineer (PE) Texas
Other experience and qualifications relevant to the proposed Project:
Cody Cockroft is a Vice President/Principal with comprehensive experience in coastal resilience, including flood control, drainage and levee engineering. He manages the coastal engineering staff at FNI and specializes in the planning, implementation and adaptation of solutions to defend and recover natural and built systems and infrastructure to protect against storms, floods and droughts. His experience includes the design and construction of thousands of miles of raw water and stormwater canals and bayous, along with appurtenant structures. He has local and federal experience in the design and analysis of hurricane protection and riverine levees. Cody's dam experience includes earthen embankments, concrete gravity, multiple barrel arch, slab and buttress structures. His hydraulic spillway experience includes radial tainter gates, drop inlet service spillways, low-flow discharge structures, piano key and labyrinth weirs, stop logs, sluice, flap valves and tidal gates.

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
Name & Title:
Nina Reins, PhD, PE, PMP Environmental Engineer
Project Assignment:
Project Manager Professional in Charge of Project
Name of Firm with which associated:
Freese and Nichols, Inc.
Years' experience with this Firm:
6 years
Education: Degree(s)/Year/Specialization:
PhD/2018/Engineering and Applied Science MS/2005/Civil and Environmental Engineering BS/2001/Structural and Civil Engineering
Active registration: Year first registered/discipline:
2008/Professional Engineer (PE) Louisiana/Environmental 2011/Project Management Professional (PMP)
Other experience and qualifications relevant to the proposed Project:
<p>Dr. Nina Reins is a Senior Engineer with 23 years of expertise in the field of coastal engineering. Her expertise includes project management and program management as well as coastal, civil, and environmental engineering design and permitting. Under previous employments, she has supported Jefferson Parish with post-Katrina recovery work, CIAP grants, CWPPRA support, grant writing and coastal white paper support. In addition, she has coastal engineering experience with the U.S. Army Corps of Engineers (USACE) and Coastal Protection and Restoration Authority (CPRA), for whom she performed as the Planning Unit Captain for the region between the Mississippi River and the Louisiana/Mississippi State Line during the first Louisiana Master Plan effort in 2006-2007. This early agency support has made her a trusted coastal engineering resource to CPRA and allowed her to complete the planning and design of a \$150 million barrier island restoration project. She manages all aspects of her projects through all project stages and handles all internal and external coordination and reporting, schedule and budget tracking, and stakeholder facilitation and subcontractor coordination. In addition to her local experience, she has supported the Texas General Land Office (GLO) Coastal Texas Protection and Restoration Feasibility Study. Her coastal expertise, especially as it pertains to sediment borrow, transport/transmission, placement and integration into natural processes, will serve Jefferson Parish well in their planning, design and implementation of coastal projects and efforts.</p> <p><i>Nina is currently serving Jefferson Parish under the existing coastal engineering contract and the Upper Barataria Terracing project task order.</i></p>

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
Name & Title:
Whitney Broussard, PhD, GISP Environmental Scientist
Project Assignment:
Quality Assurance
Name of Firm with which associated:
Freese and Nichols, Inc.
Years' experience with this Firm:
2 years
Education: Degree(s)/Year/Specialization:
PhD/2008/ Oceanography and Coastal Sciences MGIS/2017/Geographical Information Systems (GIS) BS/2003/Renewable Resources BA/2000/Environmental Studies
Active registration: Year first registered/discipline:
2015/Geographic Information Systems Professional (GISP)
Other experience and qualifications relevant to the proposed Project:
Dr. Whitney Broussard is an Environmental Scientist who specializes in geospatial technologies as they relate to coastal and water resource issues. His broad background is central to his cross-disciplinary approach to problem solving and team building. Whitney's expertise includes coastal restoration science and management; sustainable water resources; watershed management; landscape ecology; soil science; geographic information science and technology; unmanned aircraft systems; remote sensing; object-based image analysis; temporal and spatial data analysis; mapping and cartography; and project management.

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
Name & Title:
Matt Salmon, PE Professional Engineer
Project Assignment:
Coastal Engineer
Name of Firm with which associated:
Freese and Nichols, Inc.
Years' experience with this Firm:
2.5 years
Education: Degree(s)/Year/Specialization:
BS/2008/Civil Engineering (Ocean Engineering)
Active registration: Year first registered/discipline:
2014/Professional Engineer (PE) Louisiana
Other experience and qualifications relevant to the proposed Project:
<p>Matt Salmon is a coastal engineer with 16 years experience in planning, design, and construction of coastal restoration, dredging, and shoreline protection projects. He has extensive experience with coastal numerical models including Delft3D, CMS-WAVE and FLOW, STWAVE, CGWAVE, and ADCIRC. His coastal experience spans projects including marsh and ridge restoration, habitat enhancement, living shorelines, shoreline protection, hurricane surge protection, environmental and maintenance dredging, beneficial use of dredge material, breakwaters, jetties, navigation channel control/maintenance, ports/marinas, recreational boat launches and salinity control structures. <i>Matt is currently serving as the Designer of Record for the Upper Barataria Terracing project under the existing coastal engineering contract task order.</i></p>

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
Name & Title:
Ryan Fikes, CERP Environmental Scientist
Project Assignment:
Grant/Funding Specialist/Coastal Ecologist
Name of Firm with which associated:
Freese and Nichols, Inc.
Years' experience with this Firm:
4 years
Education: Degree(s)/Year/Specialization:
MS/2008/Biology (Marine Biology/Coastal Ecology) BS/2004/Biology (Marine Science)
Active registration: Year first registered/discipline:
2020/Certified Ecological Restoration Practitioner (CERP)
Other experience and qualifications relevant to the proposed Project:
<p>Ryan Fikes is a trained biologist with expertise in coastal ecology and habitat restoration. He brings more than 17 years of experience providing scientific expertise to identify and evaluate restoration projects in the Gulf of Mexico to ensure investments are scientifically sound, integrate with other projects, and achieve realistic outcomes. Through management of strategic partnerships, Ryan has worked to leverage existing resources to promote and facilitate innovative approaches to conserving ecosystems and their resources. This included work such as coordinating sea level rise modeling efforts across the Northern Gulf of Mexico to better understand implications on planned restoration initiatives.</p> <p>Ryan has experience advising state and federal leadership on issues associated with the effects of oil spills on habitat and wildlife, and he has assisted in evaluating the merits of both state and national restoration plans. Ryan has extensive knowledge of the funding mechanisms and coordinating bodies related to Deepwater Horizon oil spill recovery and restoration. His work on the oil spill has centered around connecting the science and policy in evaluating, sequencing, and planning largescale ecosystem restoration efforts, including coastal engineering projects in Louisiana. His most recent work has focused on the development of conceptual frameworks for assessing estuarine restoration needs based on acute and chronic ecosystem stressors.</p>

TEC Professional Services Questionnaire

L. Work by Firm or Joint-Venture members which best illustrates current qualifications relevant to this Project. Please include any and all work performed for Jefferson Parish. Please attach additional pages if necessary.

PROJECT NO. 1		
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
UPPER BARATARIA TERRACING PHASE I JEFFERSON PARISH Michelle Gonzales Director, Ecosystem and Coastal Management Jefferson Parish 1221 Elmwood Park Boulevard, Suite 310 Jefferson, LA 70123 504-736-6653 mgonzales@jeffparish.net	FNI led the design of a 600-acre marsh terrace field in the shallow open waters of Upper Barataria Bay in Jefferson Parish, which has experienced the highest rates of land loss in both the U.S. and Louisiana. Terraces are long-linear earthen berms that are built using on-site sediments. They are a cost-effective option to create wetland habitats by creating more edges between the water and land, supporting diverse species of fish and wildlife, while reducing shoreline and interior marsh erosion due to wind-driven waves action. This project is unique because it sits within the immediate receiving basin for the upcoming Mid-Barataria Sediment Diversion project, which will reconnect the Barataria Basin to the sediments it has historically lost from the Mississippi River. This project is part of Louisiana's multiple lines of defense strategy and is being designed to enhance the Barataria Land Bridge, which is critical to Louisiana's coastal resiliency. Robust coastal marshes support a multi-billion dollar commercial fishing industry, public recreation, and reducing storm surge for vulnerable coastal communities such as Lafitte, which suffered significant losses recently from Hurricane Ida.	
Completion Date (Actual or estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
June 2025	\$2.6 million	\$492,000

PROJECT NO. 2		
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
COASTAL SUPPORT SERVICES JEFFERSON PARISH Michelle Gonzales Director, Ecosystem and Coastal Management Jefferson Parish 1221 Elmwood Park Boulevard, Suite 310 Jefferson, LA 70123 504-736-6653 mgonzales@jeffparish.net	FNI provided coastal engineering and consulting services and staff augmentation on an as-needed basis for work throughout Jefferson Parish. Efforts included, but were not limited, to coastal planning and design (civil, hydraulic, hydrologic and environmental), mapping, CAD support and bidding and construction administration services related to coastal protection and restoration. Task orders included a Coastal and Marine Habitat Restoration Grant; North American Wetlands Conservation Act (NAWCA) Grant; research, concept refinement, and grant identification; 30% design of the Upper Barataria Terracing Project and Joint Permit Application (JPA); Upper Barataria Terracing project support services; National Coastal Wetlands Conservation Grant Application; and general coastal program support.	
Completion Date (Actual or estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
June 2022	\$131,000	\$131,000

TEC Professional Services Questionnaire

PROJECT NO. 3		
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility	
BIOLOGICAL OYSTER ASSESSMENTS LOUISIANA COASTAL PARISHES James Altman Land Manager CPRA 150 Terrace Avenue Baton Rouge, LA 70802 225-342-2413 james.altman@la.gov	FNI provided a variety of biological science and related services on an as-needed basis under an IDIQ agreement. A total of four task orders included conducting biological surveys of public oyster grounds and private leases potentially affected by coastal protection and conservation or restoration projects. The oyster assessments used Oyster Lease Acquisition and Compensation Program (OLACP) protocols to identify oyster leases or portions of oyster leases that would be directly impacted by planned construction activities for the restoration projects. For live oyster resource within each study area, square meter quadrants were randomly selected where exposed shell and reef were identified during the bottom-type poling assessments. Lengths of live and recently dead oysters were measured at each location to estimate marketable oyster resource, future production, and recent mortality. Technical report deliverables included bottom-type assessments, oyster resource characterization, bathymetry data, and detailed maps of each project study area.	
Completion Date (Actual or estimated)	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
July 2024	\$135.9 million (construction)	\$108,500 (fee)

PROJECT NO. 4		
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
LOUISIANA WATERSHED INITIATIVE (LWI), REGION 2 NORTH CENTRAL LOUISIANA WATERSHEDS Billy Williamson, PE Director of Dams and Levees LADOTD 1201 Capital Access Road Baton Rouge, LA 70802 225-379-3023 billy.williamson@la.gov	FNI is working with the LADOTD for the LWI Modeling Contract encompassing Region 2. The five-year, \$18 million contract involves the development of calibrated 1D/2D HEC-RAS models for use in consequence and risk assessment, ultimately informing the implementation of flood risk reduction projects via watershed coalitions in coordination with parish, state and federal entities. Region 2 is made up of nine Hydrologic Unit Code-8 (HUC-8) watersheds covering approximately 9,500 square miles in the north central part of the state. FNI's innovative project management approach is centered around the community, leveraging accurate watershed data and facilitating regional continuity of the H&H model development. FNI is fully integrating stakeholders throughout the watershed and adjacent regions during the discovery process. FNI has secured buy-in from local, parish, state and federal partners through accurate, complete, transparent and accessible data.	
Completion Date (Actual or estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
June 2025 (estimated)	\$18 million	\$18 million



CLIENT FEEDBACK FOR LWI, REGION 2 | Billy Williamson noted in an FNI Project Satisfaction Survey that "the schedule and cost control have been exceptional on this project". He also ranked FNI's responsiveness, technical proficiency and quality of the deliverables as "Excellent".

TEC Professional Services Questionnaire

PROJECT NO. 5		
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
DILLARD WETLANDS RESTORATION, GENTILLY RESILIENCE DISTRICT PROJECT NEW ORLEANS Rodgerika Medrano Senior Project Manager Stormwater & Green Infrastructure City of New Orleans 504-941-0340 rodgerika.medrano@nola.gov	FNI designed: (1) Stormwater Diversion features to route existing grey infrastructure discharges in surrounding neighborhoods into the wetlands; (2) New Weirs and Water Control Devices to manage residence time of stormwater flows to the wetland and to outflow to the London Canal; (3) Wetlands and Bioswales to function as stormwater filtration and temporary stormwater retention features; (4) Vegetation Management and Control Plan to remove invasive species trees, restore native plants, to manage vector species in the wetlands, and to improve the health of the ecosystem; and (5) Boardwalks through the forest to provide access to outdoor classroom and recreational space. FNI performed a comprehensive H&H study, extensive flood modeling simulations within the wetlands and adjacent communities, and triple bottom line benefit-cost analysis to inform the City, community and project team in formulating green infrastructure and stormwater management installation/improvement features and locations. FNI led community engagement with a focus on neighborhood public involvement that provided a platform for equitable community voice to build toward project stewardship at the community level.	
Completion Date (Actual or estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
90% Design: February 2022 Construction: 2026 (estimated)	\$653,600	\$653,600

PROJECT NO. 6		
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
BAYOU EAU NOIRE RIDGE AND MARSH RESTORATION PLAQUEMINES PARISH Robert Spears Coastal Program Manager Plaquemines Parish 333 F. Edward Hebert Boulevard Suite 100 Belle Chasse, LA 70037 504-934-6158 rspears@ppgov.net	FNI was tasked with borrow material sourcing, Mississippi River borrow area dredging and conveyance designs, Coastal Use and USACE 10/404 permitting, and USACE 408 evaluations. The project was a 2017 CPRA Coastal Master Plan priority project (002.RC.102) and was one of several Parish projects to restore historic ridge segments and hydrology, provide coastal upland habitat, and foster wave attenuation. The project included two ridge segments and multiple adjacent marsh creation cells. The Mississippi River's Sixty-Mile Point Borrow Area was the borrow site based on results of geophysical and geotechnical investigations, cultural resources clearances, and proximity to the project. FNI created an elevation model using existing river bathymetry provided by the USACE for borrow area design. FNI also performed initial designs of the dredge pipeline conveyance corridor, which crosses the Mississippi River levee, Parish Road 11, Highway LA-23, and the Hurricane Protection Levee. Crossing design considerations followed USACE New Orleans' design guidance for Pipeline Crossings Over Levees and Floodwalls (H-8-29027). Coastal Use/10/404 permitting and 408 authorization actions were managed by FNI and included coordination with state and federal resource agencies, the Parish, and the Mississippi River pilots.	
Completion Date (Actual or estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
April 2024	\$9.8 million (estimated)	\$129,000 (fee)

TEC Professional Services Questionnaire

PROJECT NO. 7		
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
WEST SHORE LAKE PONTCHARTRAIN (WSP) HURRICANE STORM DAMAGE RISK REDUCTION SYSTEM (HSDRRS) ST. CHARLES AND ST. JOHN THE BAPTIST PARISHES Heather Achord, PE Technical Manager USACE - New Orleans District 7400 Leake Avenue New Orleans, LA 70118 504-862-2456 heather.m.achord@usace.army.mil	WSLP-105 is approximately 3.2 miles long and WSLP-108 is approximately 1.5 miles long. Each reach consists primarily of earthen levees with T-wall transitions at drainage structures. The new levees are to be constructed to a target year 2070 design grade elevation of 17.5 feet NAVD88 (WSLP-105) and 17.0 feet NAVD88 (WSLP-108). WSLP-105 contains two drainage structures with two 10-foot-wide bays at the Ridgefield and Perilloux Canals; WSLP-108 contains one drainage structure with four 10-foot-wide bays at Mississippi Bayou. Each bay includes a 10-foot by 10-foot stainless steel sluice gate that can be closed during a surge event. Otherwise, the gates will remain open to provide tidal transfer between swampland on each side of the line of protection. T-wall sections tie into the drainage structures and the T-walls transition to provide a tie-in to the levee sections. FNI conducted the geotechnical, mechanical, and electrical design for both segments, as well as the Temporary Retaining Structure (TRS) design. The project design was originally fast-tracked to comply with policy requirements of the Bipartisan Budget Act 18 design schedules. 35% of the design was completed within eight weeks; 65% design within 30 weeks; and 95% design within one year.	
Completion Date (Actual or estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
September 2023	Construction: \$81.7 million (WSLP 105 and 108)	\$2.1 million
<div style="display: flex; align-items: center;"> <div> CLIENT FEEDBACK FOR WSLP HSDRRS "Subcontractor Freese & Nichols was very responsive and timely throughout the performance of the work, including working through several Government initiated changes to the design criteria and scope of work. They also demonstrated a very high level of technical competency and professionalism. We would not hesitate to work with them on any future opportunities." </div> </div>		

PROJECT NO. 8		
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
CARANCAHUA BAY ROOKERY ISLAND STUDY SCHICKE POINT, TX Alexis Baldera Coastal Program Manager Texas Audubon Society 7700 W Hwy 71, Suite 330 Austin, TX 78735 512-967-8116 alexis.baldera@audubon.org	FNI has been working for Audubon Texas since 2014 to help identify opportunities to build or restore rookery islands to attract colonial water birds, such as terns and egrets, and provide an environment where they can thrive. FNI was tasked in 2021 to design two different rookery islands near the mouth of Carancahua Bay that would facilitate successful colonial bird nesting and contribute to regional avian conservation and resiliency. Based on budget, the two islands were designed to be variable, from one acre to four acres of rookery area. This variability resulted in four total designs, a 1-acre design and a 4-acre design of the two original alternatives. FNI developed construction cost estimates for each design. The goal of this project was to develop two alternatives, with variability in size based on the available budget and produce a 30% design package and OPCC to allow the client to apply for funding the next phases.	
Completion Date (Actual or estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
February 2022	\$170,000 (fee)	\$170,000

TEC Professional Services Questionnaire

PROJECT NO. 9		
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
COASTAL TEXAS PROTECTION AND RESTORATION FEASIBILITY STUDY AUSTIN, TX Tony Williams Senior Director of Planning, Coastal Resources Texas GLO P. O. Box 12873 Austin, TX 78711 512-463-5055 (cell) tony.williams@glo.texas.gov	The Coastal Texas Protection and Restoration Mega-Feasibility Study is a dual-purpose Coastal Storm Risk Management (CSRM) and Ecosystem Restoration (ER) study that formulated and evaluated "multiple lines of defense" project plans to protect, restore, and conserve natural resources and built infrastructure along the Texas coast against hurricane storm surges, storm-induced erosion, and relative sea-level change (RSLC). GLO, in partnership with USACE - Galveston District, prepared a \$20 million Feasibility Report (FR) and Environmental Impact Statement (EIS) for the Coastal Texas Study. Starting in 2016, FNI assisted the GLO and USACE Project Delivery Team (PDT) (that included both USACE Galveston and New Orleans Districts) in formulating and preliminarily designing ER measures. FNI also evaluated and documented environmental impacts on combined CSRM/ER alternative project plans and supported study activities to comply with NEPA, other environmental laws, and Civil Works policies. Each CSRM/ER alternative project plan included a system of features consisting of navigation gates, levees, floodwalls, pump stations, beach fill, dunes, marshes, tidal exchange structures and rock revetments. The project was authorized for implementation by Congress under the Water Resources Development Act of 2022 at a first cost of \$30 billion.	
Completion Date (Actual or estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
September 2021	\$2.3 million	\$2.3 million

PROJECT NO. 10		
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
SCHICKE POINT LIVING SHORELINE MATAGORDA BAY, TX Hasty Johnson Owner C.H. Johnson 3209 Avalon Place Houston, TX 77019 713-966-2608 hasty.johnson@hines.com	FNI designed and oversaw construction of a living shoreline at Schicke Point to protect private property, as well as enhance the ecological health of Matagorda Bay. The client purchased Schicke Point in 1993 at a time when there were nearly 100 acres of marsh and oyster reef along the shore. Since 1993, the shore has retreated over 300 feet, converting over 20 acres of ecologically valuable marsh to open water. FNI designed Schicke Point's living shoreline to be colonized by oysters, which would cement the rocks together and grow vertically into the water as the sea level rises, emulating the growth of natural reefs. This growth with increasing water level allowed for the sustainability of the structure. Using oysters and natural processes to strengthen and grow the structure allowed the client to build a longer structure than what would have been feasible if it relied entirely on rock for protection. This project approach allowed utilization of the construction budget to protect more marsh. The delivery method of CMAR was used to allow for collaborative design efforts. This approach maximized construction cost-savings, ensured constructibility and enhanced communication between the owner, engineer and contractor.	
Completion Date (Actual or estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
August 2017	\$230,000	\$230,000

TEC Professional Services Questionnaire

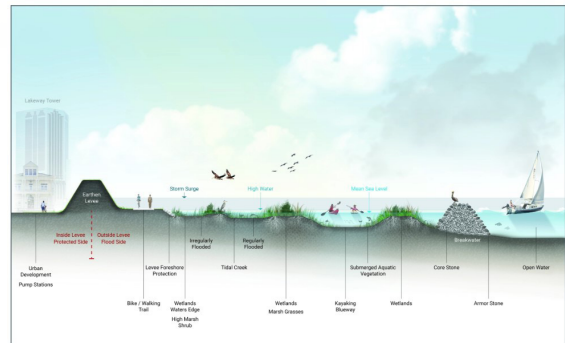
M. List all prior and/or on-going litigation between Firm and Jefferson Parish. Please attach additional pages if necessary.

Parties:		Status/Result of Case:
Plaintiff:	Defendant:	
1. N/A		
2. N/A		
3. N/A		
4. N/A		


N. Use this space to provide any additional information or description of resources supporting Firm's qualifications for the proposed project.

FNI's services include threatened and endangered species assessments, environmental assessments, 404 permitting and agency coordination. We focus on compliance strategies that minimize environmental impacts while achieving project schedules with real-world business solutions.

FNI is honored to continue our support to Jefferson Parish on implementing their Coastal Mission. We offer the full spectrum of applicable coastal planning and design services, supplemented with niche capabilities, such as grant writing and design visualization (see image to the right). We appreciate the opportunity to continue to serve Jefferson Parish and their Coastal Community.



O. To the best of my knowledge, the foregoing is an accurate statement of facts.

Signature:  Print Name: Cody Cockroft, PE
 Title: Vice President/Principal Date: July 16, 2024

Organizational Chart

Jefferson Parish



**Principal-in-Charge/
Principal**
Cody Cockroft, PE



**Project Manager/
Professional in
Charge of Project**
Nina Reins, PhD, PE, PMP



Quality Assurance
Whitney Broussard, PhD, GISP

MAJOR WORK AREAS

Aquatic Ecologist

Aaron Petty

Dredging Engineer/ Beneficial Use Specialist

Carl Sepulveda, PE

Coastal Engineer/Planner

Anthony Risko, PE
Matt Salmon, PE

Coastal/H&H Modeler

Kiara Horton, PE
Katie Koch, EI
Brandon Homan, EI

Civil Engineer

Naveen Chillara, PE

Landscape Architect

Matt Milano, ASLA, PLA,
LEED® AP

Geologist

Robert Chambers, PG

Marine Biologist

Lisa Vitale, FP-C

GIS Analyst/Drone Pilot

Blake Simon

Community Planner

Erica Craycraft, AICP,
LEED® Green Associate

Visualization/Wayfinding

John Oliver

Environmental Scientist/ Ecologist/Permitting

Tom Dixon
Kelsey Calvez

Funding Specialist/ Coastal Ecologist

Ryan Fikes, CERP

Cost Estimator

John Rinacke, CMIT

Geotechnical Engineer

Blake Cotton, PE, LEED® AP
Alicia Sellers, PE

Mechanical Engineer

Lewis Bernard, PE

Structural Engineer

Barry Fehl, DSC, PE

SUBCONSULTANTS/SUPPORT WORK CATEGORIES



Eustis Engineering, LLC

Geotechnical Investigations
Laboratory Analysis



Hydroterra Technologies, LLC

Topographic Surveys
Hydrographic and Magnetometer Surveys for Inshore and Near Shore Waters
Underground Utilities Location



Marais Consultants, LLC

Community Engagement
Engineering Support

Resumes



Cody Cockroft^{PE}

Principal-in-Charge/Principal

Cody Cockroft is a Vice President/Principal with comprehensive experience in flood control, drainage, dam and levee engineering, stormwater and raw water canal conveyance projects.

EXPERIENCE

24 years

EDUCATION

MS, Engineering Management, The University of Texas at Austin

BS, Civil Engineering, Texas A&M University

REGISTRATIONS

Professional Engineer, Louisiana #PE.0037819

PROFESSIONAL AFFILIATIONS

American Society of Civil Engineers, Member

Association of State Dam Safety Officials, Member

United States Society on Dams, Member

Society of American Military Engineers, Member

Cody specializes in the planning, implementation and adaptation of solutions to defend and recover natural and built systems and infrastructure to protect against storms, floods and droughts. Cody's experience includes the design and construction of thousands of miles of raw water and stormwater canals and bayous, along with appurtenant structures. He also has local and federal experience in the design and analysis of hurricane protection levees and riverine levees. Cody's dam experience includes earthen embankments, concrete gravity, multiple barrel arch, slab and buttress structures. His hydraulic spillway experience includes radial tainter gates, drop inlet service spillways, low-flow discharge structures, piano key and labyrinth weirs, stop logs, sluice, flap valves and tidal gates. He is well versed in complicated and heavy civil projects with a specialization in Care of Water concerns such as surface water and pressurized groundwater. Cody has more than two decades of experience in design and construction involving earth, reinforced concrete, structural steel, and gates.

RELEVANT PROJECT EXPERIENCE

WSLP Reaches 105 and 108 | USACE - New Orleans District | Group Manager | As a subconsultant, FNI provided civil, geotechnical, mechanical, and electrical design services for Reaches 105 and 108 of the project. The project consisted of 4.7 miles of earthen levee, three drainage structures, and pile-founded T-type floodwalls. FNI's designs were completed in accordance with all applicable design criteria, including the HSDRRS design guidelines.

Sabine Pass to Galveston Bay Coastal Storm Risk Management | USACE - Galveston District | Engineering Lead | FNI is leading a joint venture (JV) effort to design the levees and floodwalls for the Port Arthur segment of Sabine to Galveston project. Cody is the design production lead, which includes civil, structural and geotechnical designs, and preparation of plans and specifications

for raising existing levees, building new floodwalls, providing railroad and navigation closure and impact protection structures, and repairing existing wave barriers.

Highlands Reservoir Improvements | San Jacinto River Authority, TX | Project Manager | FNI designed 15,000 LF of embankment improvements to restore a jurisdictional off-channel reservoir dam in addition to investigating related environmental issues. The project included designing 13,000 LF of hurricane-rated slope armoring and 10,000 LF of raised embankment crest, converting 8,000 LF of embankment into an earthen weir, and developing a new emergency spillway structure and two new low-flow outlets. Cody oversaw the design team developing the reservoir dam improvements.



Nina Reins PhD, PE, PMP

Project Manager/Professional in Charge of Project

Dr. Nina Reins has more than 20 years of expertise in coastal research, modeling, planning, design and permitting, as well as program and project management. She has served Jefferson Parish almost her entire career, from supporting CWPPRA and CIAP efforts pre- and post-Katrina, to the most recent coastal engineering support on the Upper Barataria Terracing project.

EXPERIENCE

23 years

EDUCATION

PhD, Engineering and Applied Science, University of New Orleans

MS, Civil and Environmental Engineering, Tulane University

BS, Structural/Civil Engineering, University of Applied Sciences Oldenburg

REGISTRATIONS

Professional Engineer, Louisiana #PE.0033749

Project Management Professional #1418378

Nina's career and research focus has been on coastal restoration in the gulf coast with an emphasis on sediment characteristics and sediment transport patterns of the Mississippi River and its Tributaries. Her analysis of sediment regimes at Old River Control Complex (published in 2010), as well as her in-depth hydrodynamic (Delft3D) research on cumulative impacts of flow energy loss and sea level rise effects document her expertise in hydrodynamic and sediment modeling. In addition, Nina is very familiar with coastal mitigation and USACE permitting requirements. Between 2014 and 2018, she successfully executed the field investigation, permitting and design of a large-scale restoration project for CPRA in Louisiana, which included preparation of a BA, EA, 404/Section 10 permitting, as well as sand lease coordination with BOEM. Nina is a leader who is known for excellence in technical execution resulting in positive and long-lasting client relationships.

RELEVANT PROJECT EXPERIENCE

Upper Barataria Terracing Phase I | Jefferson Parish | Coastal Engineer/Project Manager | Nina managed the earlier phases of this project, including preliminary design, permitting and original grant applications. Since grant funding was secured and final design services started, Nina has taken on the role as Senior Advisor for the project and has recently performed QC reviews on the construction drawings and specifications.

Sabine Pass to Galveston Bay Orange County Coastal Storm Risk Management | GCFN-JV | Project Manager | Nina is leading a multidisciplinary JV team, delivering the design as a cohesive work product under a prime JV with additional design partners. FNI provided coastal engineering services and construction

materials acquisition planning and is currently performing the design development for two Early Contractor Involvement design packages. The design encompasses more than 3 miles of levee and floodwall infrastructure as well as 2 pump stations, to support this critical USACE hurricane flood damage risk reduction project.

Bayou Eau Noire Ridge and Marsh Restoration Project | Plaquemines Parish | Project Manager | Nina supported the design by developing a permitting strategy for this project based on her expertise in USACE permitting of sand and marsh borrow, its conveyance and placement for restoration purposes. FNI prepared the riverine borrow design and conveyance permit plats.

Nina Reins PhD, PE, PMP (continued)

RELEVANT PROJECT EXPERIENCE

WSLP Reaches 105 and 108 | USACE - New Orleans District | Project Manager |

Nina led the work performed by FNI's staff, which included geotechnical, mechanical and electrical engineering for WSLP-105 (3.2 miles) and WSLP-108 (1.5 miles). These reaches consist primarily of earthen levees with T-wall transitions at drainage structures. The scope included the design of TRS, as well as the preload and wick drain designs. The design utilized USACE criteria including appropriate EMs, ECs, as well as the MVN's HSDRRS Design Guidelines and project-specific design memoranda.

Coastal Texas Protection and Restoration Feasibility Study | Texas GLO | Project Engineer | Nina has assessed the impacts to sediment transport, hydrology and anticipated coastline changes due to the implementation of the Texas coastal study features.

East Timbalier Barrier Island Restoration Project* | CPRA | Project Manager | As the prime's Project Manager on this \$6 million design project, Nina led the field investigations, design and permitting. The project included morphological modelling, alternatives evaluation to restore approximately 680 acres of beach/dune and marsh habitat and 4.5 miles of beach.

Louisiana Coastal Master Plan* | CPRA | Planning Unit Captain | As Planning Unit Captain for the Region between the Mississippi River and Mississippi State Line, Nina played an integral role in the preparation of the first Louisiana Comprehensive Master Plan for a Sustainable Coast following Hurricane Katrina.

Section 203 Red River Navigation Study | Arkansas Department of Agriculture | Project Manager | Nina is leading the team of FNI staff and four subcontractors for this feasibility study in collaboration with USACE Vicksburg District. The study includes H&H analysis utilizing HEC-RAS, conceptual lock designs, environmental impact analysis, and economics.

GIWW Dredge DMPA Assessment | TxDOT - Maritime Division | Project Manager | Nina has led this project, which generated a main-stem DMPA's database along the GIWW, including topography, ownership and condition evaluation.

**project experience prior to joining FNI*



"The Project Manager (Nina Reins) is very knowledgeable and on top of all actions ongoing on the order. When traveling on vacation or other projects, she maintains communication with the Project Delivery Team and USACE to ensure an excellent product in line with the scope. She is very detail oriented and produces an excellent monthly report of activities and support for billing. She is pleasant to work with and looks for ways to create positive communication among all team members."

**Stephen Spoor,
Contracting Officer's
Representative**

**USACE - Huntington
District, West Virginia**



Whitney Broussard PhD, GISP

Quality Assurance

Dr. Whitney Broussard is an Environmental Scientist who specializes in geospatial technologies as they relate to coastal and water resource issues.

EXPERIENCE

21 years

EDUCATION

PhD, Oceanography
and Coastal Sciences,
Louisiana State University

Master of Geographical
Information Systems,
The Pennsylvania
State University

BS, Renewable Resources,
University of Louisiana
at Lafayette

BA, Environmental Studies,
Naropa University

REGISTRATION

Geographic Information
Systems Professional
#67736

PROFESSIONAL AFFILIATIONS

Society of American
Military Engineers, Member

American Society of
Photogrammetry and
Remote Sensing, Member

Coastal and
Estuarine Research
Federation, Member

Urban and Regional
Information Systems
Association, Member

Whitney's broad background is central to his cross-disciplinary approach to problem solving and team building. His expertise includes coastal restoration science and management, sustainable water resources, watershed management, landscape ecology, geographic information science and technology, and remote sensing. His PhD work assessed over 100 years of water quality impacts in watersheds across the continental US. His post-doc supported the first Louisiana Coastal Master Plan for a Sustainable Coast with a comprehensive analysis of wetland vegetation health criteria and helped to develop the LaVegMod coastal vegetation model that prioritized coastal restoration success. Water resources, wetland vegetation, and the sustainable management of the land-water interface has been the connecting thread throughout his career.

RELEVANT PROJECT EXPERIENCE

Grand Bayou Ridge and Marsh Restoration Oyster Assessment | CPRA | Project Manager | FNI conducted a water bottom survey and biological assessment to identify potential impacts to oyster leases and habitat resulting from coastal restoration activities. Whitney was the project manager and oversaw field activities, data analysis, spatial analysis, and reporting. The methodology and data collection efforts conformed to the standards established by the State's Oyster Lease Damage Evaluation Board (OLDEB), as required by CPRA.

Louisiana and Texas Oyster Habitat Status and Trends Analysis | Gulf of Mexico Alliance | Staff Team | FNI is performing an oyster habitat status and trend analysis to include understanding and communicating changes in oyster habitat, future threats, and oyster monitoring, assessment, and management techniques. Whitney is charged with developing and completing the scientific method and approach for the status and trends analysis in Louisiana.

Gulf of Mexico Community Oyster Monitoring and Evaluation | Restore America's Estuaries | Staff Team | FNI is developing a monitoring and evaluation plan for non-profit grant recipients of oyster restoration funds across the Gulf Coast. Whitney is tasked with supporting the CRCL and has developed a repeatable, scientifically valid sampling protocol for the non-profit that tracks oyster habitat health and restoration success.

Chitimacha Hazard Mitigation Plan | Chitimacha Tribe of Louisiana | Project Manager | FNI is finalizing the Hazard Mitigation Plan for the Chitimacha Tribe for submission to FEMA. Whitney is the project manager, leading the GIS and mapping applications for the hazards assessment and providing valuable local insight into the coastal and environmental challenges that face the Tribe.



Aaron Petty

Aquatic Ecologist

Aaron Petty has a biological research background with an emphasis on marine and aquatic science.

EXPERIENCE

13 years

EDUCATION

Master of Environmental Studies, College of Charleston

BS, Biology, Texas Tech University

CERTIFICATIONS

Louisiana OLDEB Certified Oyster Biologist

Marine Protected Species Observer

Scientific Research Permit, #SPR-1006-756

Wetland Delineator Certification, Wetland Training Institute

PROFESSIONAL AFFILIATIONS

Ducks Unlimited, Member

Aaron's fields of expertise include biological surveys and permitting efforts, including threatened and endangered habitat surveys, stream bio-assessments, wetland delineations, CWA Section 404 permitting, aquatic species relocation, CWA 316(b), NEPA and freshwater mussel surveys. He has extensive field experience in Texas and South Carolina, and he has worked on federal and state land along the Texas Coast. His project history is diverse and includes work in several sectors, including state and federal projects, oil and gas, utility line, pipeline and road infrastructure work.

RELEVANT PROJECT EXPERIENCE

Grand Bayou Ridge and Marsh Restoration Increment 2 | CPRA | Assistant Project Manager | FNI is conducting a biological assessment survey to identify oyster leases or portions of oyster leases that would be directly impacted by the planned construction activities to restore forested ridge, which will provide coastal upland habitat, restore natural hydrology and provide wave and storm surge attenuation along Grand Bayou.

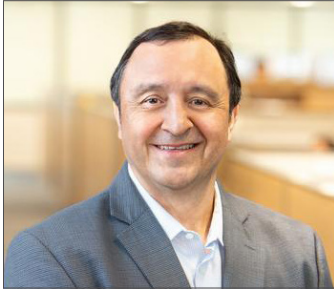
Dressing Point Island Restoration Permitting and Field Work | Ducks Unlimited | Project Manager | FNI is assisting in completing and submitting a USACE permit application for the Dressing Point Island Restoration and Shoreline Protection project. FNI is also performing a seagrass and oyster survey around the project area before construction. Aaron led surveys for oysters and seagrass in the 85-acre project area and is the project manager to permit the project under NWP 27.

Carancahua Bay Bird Island Feasibility Study | Texas Audubon Society | Biologist | FNI helped evaluate the feasibility of constructing a rookery island for colonial water birds in Matagorda Bay near the mouth of Carancahua Bay. This project takes

advantage of previous work in the area and may provide multiple ecological benefits and additional nesting habitat for colonial water birds. Aaron coordinated the field data collection to evaluate water depth and substrate suitability for a bird island.

Schicke Point Living Shoreline Protection | C. H. Johnson | Biologist | FNI provided design and construction services for a 1.3-mile living shoreline to provide the substrate for oyster colonization and hard reef habitat while protecting more than 30 acres of intertidal marsh in Matagorda Bay. Aaron assisted in the design of 1.29 miles of living shoreline intended to provide substrate for oyster colonization and hard reef habitat.

Buffalo Lake Marsh | Ducks Unlimited | Environmental Scientist | FNI provided wetland delineations, archeological surveys and a Section 404 permit application prepared to allow Texas Parks and Wildlife Department to repair a water control structure for the Buffalo Lake Marsh Project in the Guadalupe Delta Wildlife Management Area. Aaron performed wetland delineations and coordination for the archeological survey and Section 404 permit to repair a water control structure in the Buffalo Lake Marsh area.



Carl Sepulveda PE

Dredging Engineer/Beneficial Use Specialist

EXPERIENCE

33 years

EDUCATION

BS, Bioengineering, Texas
A&M University

REGISTRATION

Professional Engineer,
Texas #101267

PROFESSIONAL AFFILIATIONS

American Society of Civil
Engineers, Member

Society of American
Military Engineers, Member

Carl Sepulveda is experienced in planning, engineering, permitting and executing a wide variety of port and water resource projects, including work for the Port of Houston Authority (PHA), USACE, Port of Corpus Christi Authority (PCCA), Harris County Flood Control District (HCFCD), and other state and local clients.

Carl has managed and completed navigation, flood control and ecosystem restoration projects in the Houston and Galveston Bay areas, including ship channel modification and flood-risk management (FRM) projects. He has extensive experience in the federal feasibility and permitting process, including Civil Works (CW) planning, Section 408 and 404, NEPA, beneficial use of dredged material (BUDM), engineering for the environment, flood damage and habitat modeling, cost-benefit analysis, life cycle costs, resource agency coordination and federal and State of Texas coastal, protected species, air, water quality, hazardous material/waste, and cultural resource statutory compliance. He has experience in managing the procurement and construction of port projects. Carl's previous work experience includes 10 years as a U.S. Air Force officer in environmental and industrial hygiene monitoring and compliance, and emergency response.

RELEVANT PROJECT EXPERIENCE

Sediment Budget Analysis and Modeling | Texas GLO | Project Manager
| FNI developed and performed a sand transport model for GLO Regions 1 (upper Texas coast) and 4 (lower Texas coast). This included data identification and collation, data analysis and modeling, conducting meetings with GLO and agencies and entities with data sources, and developing a report of the sand transport modeling.

Central Region Flood Studies | Texas GLO | QA/QC | FNI is assisting 20 Hurricane Harvey impacted counties and municipalities in identifying and funding flood risk reduction strategies and mitigation projects that reduce disaster suffering and increase community resiliency. Carl provided subject matter expertise preparing an IFR and EIS. Carl reviewed and edited the main report content, including the executive summary, critical plan formulation and project evaluation and selection chapters to verify they were defensible, met CW

requirements and told a clean, concise story for plan selection and public comprehensibility.

Carancahua Bird Island Design | Texas Audubon Society | Senior Advisor | FNI designed a 2-acre island in Matagorda/Carancahua Bay to create a new nesting habitat for colonial nesting birds. The island design consists of a sediment island created from nearby dredge material and stone armor to reduce wave and current erosion forces. The island also includes an intertidal area to mimic a natural shoreline.

Sabine Pass to Galveston Bay Coastal Storm Risk Management, Port Arthur and Vicinity Hurricane Flood Protection | USACE - Galveston District | Assistant Project Manager | FNI led a multidisciplinary joint-venture team to design the levee and floodwalls for two segments of a 5.5-mile hurricane protection system in Port Arthur and its vicinity.



Matt Salmon PE

Coastal Engineer/Planner

Matt Salmon has extensive coastal engineering expertise and has spent his career working on coastal protection/restoration and environmental remediation projects in Louisiana and the United States.

EXPERIENCE

16 years

EDUCATION

BS, Ocean Engineering,
Texas A&M University

REGISTRATION

Professional Engineer,
Louisiana #PE.0038647

PROFESSIONAL AFFILIATIONS

American Society of Civil
Engineers - Baton Rouge
Chapter, Membership Chair

Coast Builders Coalition,
Board Member

Louisiana Water
and Environmental
Association, Webmaster

Matt has experience in planning, design, and construction of coastal restoration, dredging and shoreline protection projects. He has extensive experience with coastal numerical models including Delft3D, CMS-WAVE and FLOW, STWAVE, CGWAVE and ADCIRC. His coastal experience spans projects involving marsh and ridge restoration, habitat enhancement, living shorelines, shoreline protection, hurricane surge protection, environmental and maintenance dredging, beneficial use of dredge material, breakwaters, jetties, navigation channel control/maintenance, ports/marinas, recreational boat launches and salinity control structures.

RELEVANT PROJECT EXPERIENCE

Upper Barataria Terracing Phase I | Jefferson Parish | Coastal Technical Lead | FNI helped Jefferson Parish apply for and be awarded a grant for engineering design for the Upper Barataria Terracing based on a review of previously constructed terracing projects, research documentation, and site-specific data including wind, water level, geotechnical data, and surveys (topographic, bathymetric, and geophysical). The project will construct approximately 49,900 LF of earthen terraces encompassing 528.4 acres in Barataria Bay, south of the Town of Lafitte near Dupre Cut and Bayou Dupont. The project will complement the adjacent Upper Barataria Marsh Creation project that will restore up to 1,350 acres of marsh habitat. Terraces will be constructed from adjacent borrow trenches followed by stabilization with *Spartina alterniflora* and *Spartina patens* and will capture sediments and protect marsh from wind and wave erosion. Matt led coastal engineering design that included development of design drawings and specifications.

Black Bay Marsh and Ridge Restoration | St. Bernard Parish | Coastal Technical Lead | As a subconsultant, FNI is supporting the design of a 7-mile-long marsh and ridge restoration in southern St. Bernard Parish. CPRA confirmed the project was consistent with the Master Plan but did not select it for the 2023 Louisiana Master Plan. FNI led the Delft3D circulation, salinity, and morphology modeling, and associate gauge data collection, 404/408 environmental compliance support, and Mississippi River Borrow Material and Conveyance Design. Matt is leading numerical modeling development, as well as design and permitting of the dredged borrow area and pipeline access corridor.

Little Florida Shoreline Protection | Cameron Parish | Coastal Technical Lead | As a subconsultant, FNI is providing numerical modeling to compare erosion and accretion potential of three breakwater alternatives. The numerical model Delft3D was used to evaluate project morphology over the course of 20-years and select a preferred alternative. Matt was the lead numerical modeler.



Anthony Risko PE

Coastal Engineer/Planner

Anthony (Tony) Risko is a Senior Project Manager and coastal resources planner experienced in the delivery of new work and maintenance dredging projects.

EXPERIENCE

35 years

EDUCATION

ME, Ocean Engineering,
Texas A&M University

BS, Civil Engineering,
University of Nebraska

REGISTRATION

Professional Engineer,
Louisiana #PE.0038713

As a former USACE manager, Tony has led the development of civil works water resources projects, including projects for coastal storm risk management, shoreline protection, ecosystem restoration, navigation, dredge material and regional sediment management, and watershed management. Additionally, Tony has extensive experience in preparing National Environmental Policy Act (NEPA) compliance documents and feasibility-level decision documents. Tony is a graduate of the collaborative USACE-ERDC/Texas A&M Coastal Engineering Education Program (CEEP).

RELEVANT PROJECT EXPERIENCE

Coastal Texas Protection and Restoration Mega-Feasibility Study, Texas Coast | Texas GLO | Coastal Planner/Engineer | Tony supported GLO and USACE - Galveston District in the formulation and evaluation of alternative plans and designs being studied for Coastal Storm Risk Management (CSRM) and Ecosystem Restoration (ER) purposes along the Texas Coast. Alternatives and potential solutions being evaluated consist of multiple lines of defense designed to protect and restore natural and built coastal infrastructure. He served as the A/E Project Manager for EIS development.

Port of Corpus Christi Channel Deepening Environmental Impact Statement (EIS)/408 Permission Evaluation | USACE - Galveston and Port of Corpus Christi | Coastal Planner/Engineer | Leading efforts to prepare a third-party EIS and Section 408 Permissions evaluation under USACE Galveston direction to evaluate environmental and 408 impacts associated with 42 mcy dredge and fill activities to deepen a portion of the channel to accommodate fully-laden VLCCs.

Sabine Pass to Galveston Bay at Port Arthur and Orange County Coastal Storm Risk Management | USACE - Galveston District | Coastal Engineer | Tony is serving as the Senior Coastal Engineer to design the PAV03A segment of the 27.8-mile CSRM system. FNI is the design lead for Zones 1 and 3, which includes designs for 8,656 LF of coastal levees, 3,324 LF of seawalls, a railroad closure structure, and improving 2.0 miles of a wave attenuation barrier. He is also serving as the Senior Coastal Engineer for \$1.9 billion Orange County separable element which encompasses new levee, floodwall and pump station infrastructure to provide for hurricane flood damage reduction.

East Timbalier Barrier Island Restoration, Terrebonne Bay | CPRA | Coastal Engineer | Provided Louisiana CPRA with engineering and technical management of the consultants' multi-disciplinary PDT for activities to design and permit project plans to restore the severely degraded East Timbalier Barrier Island and back-bay marshes using dredged sediments from nearshore & offshore borrow sources.



Kiara Horton PE

Coastal/H&H Modeler

Kiara Horton is an Engineer in FNI's New Orleans office and has a growing knowledge of technical skills in water resource design, H&H, and coastal engineering.

EXPERIENCE

4.5 years

EDUCATION

BS, Environmental and Civil Engineering, University of New Orleans

Coastal Sciences Certificate, University of New Orleans

Coastal Engineering Certificate, University of New Orleans

REGISTRATION

Professional Engineer, Louisiana #PE.0048657

PROFESSIONAL AFFILIATIONS

Society of American Military Engineers - Mobile and New Orleans Post, Member

American Society of Civil Engineers, Member

LA Coasts, Oceans, Ports, and Rivers Institute, Member

Kiara's experience includes H&H modeling, including HEC-HMS, HEC-RAS, PCSWMM, and ICM models, spatial data analysis, numerical analysis, vulnerability assessments, flood risk management, borrow area pit design, shore stabilization design and revetment stone sizing. Kiara also has drafting and design experience in Civil3D and MicroStation. Kiara is expected to graduate with a Civil Engineering Masters in 2025.

RELEVANT PROJECT EXPERIENCE

Coastal Support Services | Jefferson Parish | Engineering Support | FNI

FNI provided coastal engineering and consulting services and staff augmentation on an as-needed basis. Services included coastal planning and design (civil, hydraulic, hydrologic and environmental), mapping, CAD support and bidding and construction administration services related to coastal protection and restoration.

Louisiana Watershed Initiative, Region 2 Modeling | LADOTD | Engineering Support | FNI

FNI worked with Region 2 and developed large-scale H&H models to create a statewide watershed-based floodplain management program. The five-year, \$18 million contract involved the development of calibrated 1D/2D HEC-RAS models for use in consequence and risk assessment, ultimately informing the implementation of flood risk reduction projects via watershed coalitions in coordination with parish, state and federal entities. Kiara works on production and calibration and assists on program management for various watersheds in Region 2.

Dillard Wetlands | City of New Orleans | Engineering Support | FNI

FNI is designing stormwater diversion features, new weirs and water control devices, wetlands and

bioswales, a vegetation management and control plan, and boardwalks through the forest. FNI is also performing a comprehensive H&H study, extensive flood modeling simulations within the Dillard Wetlands and adjacent communities, and triple bottom-line cost-benefit analysis. Kiara used the City's existing PC-SWMM model to model existing inundation depth in the project area. She also developed localized GIS flood maps for the existing and proposed design scenarios and assisted in drainage design.

Bethune Point Water Reclamation Facility Vulnerability and Resiliency Plan | City of Daytona Beach, FL | Engineering Support | FNI

FNI provided a sea-level rise and storm surge vulnerability assessment and adaptation plan for the City of Daytona Beach. FNI also provided a more detailed assessment of the Bethune Point Water Reclamation Facility, which established critical flood elevations, identified key assets that are impacted by flooding, and provided a technical memorandum containing hardening recommendations and a cost benefit analysis. Kiara conducted a GIS analysis to develop flood maps, determine impacts of inundation, and recommend practical solutions.



Katie Koch EI

Coastal/H&H Modeler

Katie Koch is an engineer in FNI's Stormwater Practice who is experienced in H&H modeling and mapping.

EXPERIENCE

3 years

EDUCATION

MS, Civil Engineering/
Water Resource
Engineering, Louisiana
State University

BS, Civil Engineering,
Louisiana State University

REGISTRATION

Engineer Intern,
Louisiana #EI.0034979

Prior to FNI, she worked with the Coastal Resilience Center, a DHS Center of Excellence, to integrate the ADCIRC Surge Guidance System data from LSU's Coastal Emergency Risk Assessment (CERA) into FEMA's hazard risk model Hazus-MH. This required coordination with FEMA's Hazus and Natural Hazard Risk Assessment Program support team to manage and process surge hazard data. Since joining FNI, she has contributed H&H modeling for three watershed studies and has assisted in data collection and management for the Texas State Flood Plan.

RELEVANT PROJECT EXPERIENCE

Louisiana Watershed Initiative, Region 2 Modeling | LADOTD | Hydraulic Modeler | FNI is providing Louisiana Watershed Initiative Series II H&H modeling for Region Two HUC8s.

Red River Navigation Study | Arkansas Department of Agriculture | Hydraulic Modeler | FNI is conducting a Southwest Arkansas Navigation Study to determine the feasibility of constructing a 135-mile extension of the Red River Waterway federal shallow-draft navigation channel from its present terminus in Shreveport, Louisiana, to southwest Arkansas.

Lower Red-Sulphur-Cypress Regional Flood Plan | Lower Red-Sulphur Cypress | Hydraulic Modeler | As a subconsultant, FNI assisted with the development of a Regional Flood Plan for the Lower Red-Sulphur-Cypress Region (Region 2).

Dillard Wetland Restoration | City of New Orleans | Hydraulic Modeler | FNI is designing stormwater diversion features, new weirs and water control devices, wetlands and bioswales, a vegetation management and control plan, and boardwalks through the forest. FNI is also performing a comprehensive

H&H study, extensive flood modeling simulations within the Dillard Wetlands and adjacent communities, and triple bottom-line cost-benefit analysis.

Texas Regional Flood Plans | Texas Water Development Board (TWDB) | Staff Team | FNI supported the TWDB and 12 of the 15 Regional Flood Planning Groups in developing the first-ever 2023 Regional Flood Plans (RFP). The RFPs identified each region's current and projected flood risks and recommended flood mitigation actions that help reduce flood hazards to life and property. Potential flood mitigation actions included flood management evaluations, flood management strategies and flood mitigation projects.

Base Level Engineering: Flood Risk Mapping | TWDB | Risk Analyst | FNI is providing technical flood risk analysis and related mapping activities. The project's main objectives are to develop flood hazard data in support of both state flood planning and FEMA's Risk MAP program.



Brandon Homan EI

Coastal/H&H Modeler

Brandon Homan is an EI with experience in water resource design and coastal engineering.

EXPERIENCE

1 year

EDUCATION

BS, Civil Engineering,
William Jewell College

REGISTRATION

Engineer Intern,
Louisiana #EI.0035602

PROFESSIONAL AFFILIATIONS

American Society of Civil
Engineers, Member

He has worked on a wide array of engineering projects revolving around coastal restoration, renovation and modeling. Brandon's project experience has allowed him to develop his skills in design, modeling, and mapping, including the use of ArcGIS, HEC-RAS, Delft3D 4, and Civil3D.

RELEVANT PROJECT EXPERIENCE

Coastal Support Services | Jefferson Parish | Staff Team | Brandon assisted in providing preliminary engineering and design, permitting assistance, environmental assessment, field data collection, research and grant development. Brandon also provided support in the creation of the Civil3D plan set and developed the required specifications for the project.

Carancahua Bird Island Design | Texas Audubon Society | Staff Team | FNI designed a 2-acre island in Matagorda/Carancahua Bay to create a new nesting habitat for colonial nesting birds. The island design consists of a sediment island created from nearby dredge material and stone armor to reduce wave and current erosion forces. The island also includes an intertidal area to mimic a natural shoreline.

Black Bay Ridge Coastal Restoration | AIMS Group, Inc. | Staff Team | As a subconsultant, FNI is designing the dredge material borrow sources and coastal numerical modeling. Hydrodynamic modeling, permit considerations, and requirements to harvest sediments at the locations are also being determined. Brandon worked on developing the Delft 3D 4 models.

Bayou Eau Noire Ridge and Marsh Restoration | Plaquemines Parish | Staff Team | Brandon assisted in the development of engineering analyses associated with the creation of more than 400 acres of marsh and 26,500 LF of coastal ridge habitat, along with earthen containment dikes, marsh creation fill area design and earth ridge design.

Little Florida Beach Numerical Morphology Modeling | Cameron Parish | Staff Team | As a subconsultant, FNI is providing modeling services for numerical modeling of morphology to confirm benefits of a segmented breakwater extension and improvements. Brandon worked on developing the Delft 3D 4 Models.

Louisiana Watershed Initiative, Region 2 Modeling, Series I | LADOTD | Staff Team | FNI is developing and calibrating 1D/2D HEC-RAS models for use in consequence and risk assessment, ultimately informing the implementation of flood risk reduction projects via watershed coalitions in coordination with parish, state and federal entities. Brandon assists with tasks related to developing the HEC-RAS models.



Naveen Chillara PE

Civil Engineer

Naveen Chillara is a Senior Engineer and Project Manager with more than 20 years of experience on water resources projects.

EXPERIENCE

23 years

EDUCATION

MS, Environmental Engineering, University of New Orleans

BS, Civil Engineering, Jawaharlal Nehru Technological University, Hyderabad, AP, India

REGISTRATION

Professional Engineer, Louisiana #PE.0032557

Naveen has extensive experience in water resources projects and has led large civil works projects that include the design of navigation locks, river diversion structures, raw water intake pumping stations, flood walls and levees. He has flood protection experience in the rebuilding effort of the City of New Orleans post-Hurricane Katrina and coastal restoration in Louisiana. His work includes coordinating and conducting planning studies, performing detailed design and analysis of hydraulic structures and developing construction plans and specifications.

RELEVANT PROJECT EXPERIENCE

WSLP Reaches 105 and 108 | USACE - New Orleans District | Civil Engineer |

As a subconsultant, FNI provided civil, geotechnical, mechanical, and electrical design services for Reaches 105 and 108 of the West Shore Lake Pontchartrain HSDRR project. The project consisted of 4.7 miles of earthen levee, three drainage structures, and pile-founded T-type floodwalls. FNI's designs were completed in accordance with all applicable design criteria, including the HSDRRS design guidelines. Naveen was the designer of record for the temporary retaining structure, including earthen excavation and dewatering plan per HSDRR guidelines.

Sabine Pass to Galveston Bay

Orange County Coastal Storm Risk Management | USACE - Galveston District | Project Engineer |

As a JV lead, FNI provided coastal engineering services and construction materials acquisition planning, which encompassed levee, floodwall and pump station infrastructure, to support this \$1.9 billion USACE hurricane flood damage reduction project. The JV team delivered preliminary geotechnical, civil, mechanical, electrical and structural engineering design services. Naveen led the 30% civil design plans for 3.3 miles of the Contract 2 segment, including

new earthen levee, floodwall and closure structures. He led the development of alignment for Reach OC02, levee section, transition zones, and layout of drainage structures using MicroStation and USACE standards.

Mississippi River Diversion to Maurepas Swamp | St. John the Baptist Parish | Project Manager |

Naveen was responsible for development of 95% construction plans and specifications for this project, involving a 2000 cfs freshwater diversion from the Mississippi River into swamps south of lake Maurepas. The project involved control structures, 5 miles of channel crossing, major railroad and highway crossings, and a drainage pump station.

Precinct 2 Channel Rehabilitation |

HCFCF | Civil Engineer | This project involved design services for multiple channel rehabilitation projects within the Precinct 2 system. The project included removal and disposal of sediment from drainage systems, repairs to erosion and slope failures, removal and replacement of damaged outfall conduits and stormwater interceptor structures, and reclamation of HCFCF ROW encroached by various facilities and structures.



Matt Milano ASLA, PLA, LEED® AP

Landscape Architect

Matt Milano's expertise includes the design and management of parks and recreation planning/design for a variety of projects.

EXPERIENCE

17 years

EDUCATION

BLA, Landscape
Architecture, Louisiana
State University

REGISTRATION/ CERTIFICATION

Construction Document
Technologist, Construction
Specifications Institute

LEED Accredited
Professional, U.S. Green
Building Council

CLARB Certification,
#28130

Matt has developed extensive knowledge of regional culture and natural systems through his years of experience working on recreation-based design projects. His design philosophy is rooted in context-sensitive design, and he seeks to incorporate regional, cultural and natural aspects into his work while implementing basic placemaking design principles. He also utilizes a collaborative design process to assist his clients in communicating their project vision, goals and programming requirements. Matt is experienced in producing deliverables in all planning and design phases, from visioning documents, character sketches and concept diagrams to final construction drawings and specifications.

RELEVANT PROJECT EXPERIENCE

Dillard Wetland Restoration | City of New Orleans | Landscape Architect |

FNI designed: (1) stormwater diversion features; (2) new weirs and water control devices; (3) wetlands and bioswales; (4) vegetation management and control plan; and (5) boardwalks through the forest. Additionally, FNI performed a comprehensive hydrologic and hydraulic study, extensive flood modeling simulations within the Dillard Wetlands and adjacent communities, and triple bottom line benefit- cost analysis to inform city, community and project teams in formulating green infrastructure and stormwater management installation/improvements.

Western Avenue Detention Park | City of Fort Worth, TX | Landscape Architect |

This project included design services for the second major flood mitigation component in the Central Arlington Heights Watershed. It consists of the design of underground detention within the right of way of a block of Western Avenue, a residential street in the historic Arlington Heights neighborhood, and a large surface detention pond on recently purchased properties. Given the sensitive cultural context of this proposed

detention pond, it was critical that the pond site act as both a storm water detention facility and recreational asset to the surrounding neighborhood. Matt led the design team in the development of this "detention park," which included a loop trail system, small gathering space and a planting design to accommodate frequent inundation due to storm events.

Rodney Cook Sr. Park | City of Atlanta, GA | Landscape Architect/Project Designer |

The scope included master planning and design services for the proposed park site with design objectives that looked to add more open space to the surrounding neighborhood, alleviate localized flooding, increase storm water capacity, separate combined sewers in the vicinity, improve water quality, and provide educational opportunities. The design includes green infrastructure that collects storm water and reduces flooding that has plagued the area during rain events. The park was designed through a collaborative effort between the City of Atlanta, the Trust for Public Land, the National Monuments Foundation, and the Vine City community.



Robert Chambers PG

Geologist

Robert Chambers is a Vice President/Principal and is an environmental geologist in FNI's Environmental Practice.

EXPERIENCE

31 years

EDUCATION

MS, Environmental Science, University of North Texas

BA, Geography, University of North Texas

REGISTRATION

Professional Geoscientist, Louisiana #462

PROFESSIONAL AFFILIATIONS

National Ground Water Association, Member

Texas Association of Environmental Professionals, Member

Society of American Military Engineers, Member

Robert has experience with conducting various types of field investigations involving soil/sediment characterizations, hydrogeological studies, and collection of samples from soil/sediment/surface water/groundwater for geotechnical and environmental laboratory analysis. He has prepared boring logs, cross sections, and other figures necessary to support reports. Robert has worked extensively in Louisiana during his career for clients including the CPRA, USACE - New Orleans District, Fort Johnson, the City of New Orleans and Jefferson Parish.

RELEVANT PROJECT EXPERIENCE

WSLP HSDRR – Reaches WSLP-105 and 108 | USACE - New Orleans District |

Geologist | The project consisted of 4.7 miles of earthen levee, three drainage structures, and pile-founded T-type floodwalls. Robert participated in site visits and assisted with the compilation and evaluation of existing geotechnical field and laboratory data provided through a USACE-led geotechnical investigation.

Dillard Wetland – Gentilly Resiliency District Project | City of New Orleans |

Principal-in-Charge | Robert is working with our interdisciplinary project team to execute the design and construction management of an innovative green infrastructure and water management project that will reduce flood risk, slow land subsidence, spur economic activity and encourage neighborhood revitalization. Robert has participated in site reconnaissance visits to the project area and has overseen wetland delineations and jurisdictional water determinations including soil classification at the site.

St. James Mitigation Site Soil Survey | USACE - New Orleans District | Geologist

| Robert worked with FNI's project manager to initiate a soil survey at a potential mitigation site. The FNI team

collected samples from 20 sites (one site per 50 acres) for evaluation of soil nutrients. FNI also installed soil borings at ten additional sites for the purpose of preparing detailed soil descriptions and estimation of physical and engineering properties to aid in future land forming design work.

4640 Peters Road Industrial Port Site Remediation Consulting | Trinity Industries | Environmental Engineer |

Robert conducted a site visit to an industrial site in Harvey, Louisiana, to inspect a capped area that had previously received closure under LDEQ's RECAP program. Leachate was apparently leaking from the capped area due to lack of maintenance. Robert is assisting our client in coordination for potential corrective measures with LDEQ.

Schicke Point Living Shoreline | C.H. Johnson | Principal-in-Charge

| Robert supervised FNI's team that involved the design of a 1.2-mile shoreline protection project to protect and restore marsh in Matagorda Bay. Tasks involved application for a submerged land lease from Texas GLO, application for permission to construct from the USACE, design of living shoreline, construction inspection and post-construction monitoring.



Lisa Vitale FP-C

Marine Biologist

EXPERIENCE

28 years

EDUCATION

MS, Marine Biology,
Texas A&M University at
Corpus Christi

BS, Marine Biology,
University of Texas
at Austin

REGISTRATION

Certified Fisheries
Professional (FP-C),
American Fisheries
Society, #3471

Professional Association
of Diving Instructors,
Divemaster #36772

PROFESSIONAL AFFILIATIONS

American Academy
of Underwater
Sciences, Member

American Fisheries Society
Texas Chapter, Member

Professional Association of
Diving Instructors, Member

Lisa Vitale is a Marine Biologist/Project Manager in FNI's Environmental Science group with extensive experience in the field performing assessments on marine and freshwater systems to assess their physical, chemical and biological characteristics.

Lisa's fields of experience and research include assessing marine, estuarine, and freshwater environments; identification of aquatic organisms; water quality monitoring and analysis; threatened and endangered species issues; the study of anthropogenic effects on aquatic ecosystems; and management of NEPA documents. She has worked in NEPA compliance and has experience managing and preparing large environmental impact statements for the USACE. Her NEPA compliance experience has focused on coastal projects along the Gulf Coast and has included navigation improvement, flood/storm damage and shoreline erosion reduction, and facilities expansion.

RELEVANT PROJECT EXPERIENCE

Corpus Christi Ship Channel Deepening EIS | Port of Corpus Christi | Assistant Project Manager/NEPA Technical Lead | Lisa wrote the marine community's baseline, environmental consequences, and EFH sections and EFH Assessment for a third-party EIS under the USACE - Galveston District direction to conduct dredge/fill activities to deepen a portion of the channel to accommodate fully Laden Very Large Crude Carriers. She is responsible for project team coordination, technical editing, document coordination/preparation and QA/QC, public meeting preparation/attendance, and comment responses. Lisa works directly with the USACE Regulatory PM and other staff who are supporting the project.

Lavaca Bay Receiving Water Monitoring Program | Formosa Plastics Corporation | Project Manager/Lead Marine Scientist | Lisa leads a team that monitors the health and structure of the biological community for an ongoing coastal monitoring program in Lavaca Bay. This project involves a fisheries

community assessment through sampling of fish, ichthyoplankton, phytoplankton, zooplankton, fish and oyster tissue analysis, and epibenthic organisms and a comprehensive water and sediment chemistry analysis. She is responsible for client coordination, data collection/compilation, document preparation, and QA/QC of all data.

Galveston Bay Oyster Reef Restoration Tool | TPWD | QA/QC | Following Hurricane Ike that buried thousands of acres of oysters in East Galveston Bay, TPWD was challenged to recover these buried reefs and important services they provide. FNI developed a decision tool to guide future oyster reef restoration and creation efforts. FNI reviewed hundreds of scientific articles and interviewed more than 20 national and international experts to gather information for the tool. The tool identifies 14 techniques, some proven and some experimental, for recovering and creating oyster reefs. Lisa provided project support and quality control review.



Blake Simon

GIS Analyst/Drone Pilot

Blake Simon has more than 10 years of experience in the environmental field working with clients such as the National Park Service, Bureau of Land Management, Fugro, APTIM and JESCO.

EXPERIENCE

12 years

EDUCATION

MS, Geographic Information Systems, Pennsylvania State University

BS, Natural Resources/Environmental Quality, University of Louisiana at Lafayette

CERTIFICATIONS

UAS Certified Drone Pilot, Federal Aviation Administration

Marine Mammal Observer Protected Species, Observer Certification and Passive Acoustic Monitoring Training

As a wetland scientist working on a CPRA project, Blake spent eight years monitoring Louisiana coastal wetlands. This included both field work and data analysis. Blake recently completed his MGIS program at Penn State, where he focused on GIS database management and data manipulation using the Python, SQL and JavaScript languages. He has expertise in coastal vegetation identification, field work logistics and scheduling, data management and analysis, wetland science, GIS, information technology and natural resource management.

RELEVANT PROJECT EXPERIENCE

Project 37 Environmental Data Form and Engineering Feasibility Report | North Harris County Regional Water Authority, TX | Staff Team | As a subconsultant, FNI is providing technical support for the preparation of the Texas Water Development Board environmental data form and engineering feasibility report. The project scope includes identifying potential conflicts with the existing alignments and construction concerns. Blake developed ArcGIS Online web maps and FieldMaps forms for the field crew.

Coastwide Reference Monitoring System (CRMS)* | CPRA, Coastal Zone | Wetland Scientist | Blake was a field biologist and data analyst, working under CPRA guidance. His tasks involved the gathering of field data from water quality instruments, accretion soil analysis using surface elevation tables and liquid nitrogen soil core samples, and vegetation identification surveys. Blake was responsible for the quality control and maintenance of data sonde electronics, specifically diagnosis and repair of YSI multiparameter water quality sondes. After storm events, damage surveys were performed, and

Blake developed GIS workflows to produce wetland and structural damage maps for CPRA. Yearly training included wetland plant identification, outboard and airboat safety, and quality control of data.

Third-Party Environmental Assessment | LA23 Development Company LLC | Staff Team | FNI prepared a third-party independent environmental assessment for Louisiana's Gateway Terminal Mainline Rail Extension Project under the directive of the Surface Transportation Board Office of Environmental Analysis. The project included a 9-mile rail extension within a 100-foot-wide ROW and associated siding tracks. Blake provided GIS mapping support.

Lawson's Canal Restoration Monitoring | City of Beaumont, TX | Staff Team | FNI is providing compliance monitoring as required by the USACE NWP 27 special conditions associated with the wetland restoration of a portion of Lawson's Canal south of Marina Street. Blake designed and built an ArcGIS StoryMap for the City. Blake also gathered drone video and produced a video for the StoryMap.

**project experience prior to joining FNI*



Erica Craycraft AICP, LEED® Green Associate

Community Planner

Erica Craycraft is a Project Manager and Urban Planner at FNI, focusing on development codes and long-range planning for public sector clients.

EXPERIENCE

16 years

EDUCATION

Master of Community Planning, Economic Development, University of Cincinnati

BA, Psychology, University of Cincinnati

REGISTRATION/ CERTIFICATION

American Institute of Certified Planners, #025104

LEED® Green Associate, U.S. Green Building Council

PROFESSIONAL AFFILIATIONS

American Planning Association, Member

Erica is experienced in comprehensive planning and strategic planning, development regulations (including zoning and subdivision ordinances and unified development codes), sustainable design, data collection and analysis, visioning and public involvement, and graphic presentation. She also has experience in land use assumptions for impact fees, annexation/growth management, and area planning projects. Erica has a firsthand understanding of cities' day-to-day development and planning practices by providing development review services for client cities. She also is actively involved in professional development and growth in her field.

RELEVANT PROJECT EXPERIENCE

Parish Development Code Update | St. Tammany Parish | Project Manager |

Erica prepared the St. Tammany Parish development code update. The purpose of the effort was to update the Parish's existing development regulations into a streamlined Land Development Code (LDC). The LDC incorporated regulations related to zoning, subdivision, drainage, water/ wastewater infrastructure, Complete Streets, and other similar codes. Throughout the process, FNI worked closely with Parish Staff and representatives from the Parish Council to craft an LDC that helped streamline the Parish's practices and modernize standards to address current needs. The complete LDC has been drafted and presented at public meetings and is currently undergoing Parish staff review.

Various Planning Services | Portland, TX | Project Manager |

Erica has served as project manager on several projects for the City of Portland. FNI developed the City's 2006 comprehensive plan and development code and has conducted subsequent updates in 2013 and 2021. Additionally, Erica and the FNI team have led several growth management studies and annexation proceedings, supporting

the long-term vision and fiscal resiliency desired by the community. Community engagements include a wide range of services, such as steering committee meetings, joint workshops, online surveys, project websites, open houses, and virtual events.

Comprehensive Plan | Port Lavaca, TX | Project Manager | Erica served as the Project Manager for the development of a new comprehensive plan, incorporating the needs and desires of the community, strategic planning/council goals and the recent waterfront and future land use plans. It documented existing conditions, previous plans and community vision. Plan recommendations addressed transportation and circulation, infrastructure assessment, neighborhood and community livability, growth corridors, and economic development and tourism. The project included a comprehensive community outreach/public participation campaign that included development of a comprehensive plan advisory committee, project web page, online survey and multiple community meetings.



John Oliver

Visualization/Wayfinding

EXPERIENCE

10 years

EDUCATION

MS, Architecture,
University of Louisiana at
Lafayette

BLA, Landscape
Architecture, Louisiana
State University

John Oliver is an FNI Landscape Architect Intern in the Environmental Science + Coastal Group and is a design specialist working at the intersection of environmental engineering, coastal communities, and landscape architecture.

This confluence of applications finds a focus in resilience planning and interpretive services. He is in the Western Gulf Coastal Group at FNI while also holding an Adjunct Instructor position in the School of Architecture at the University of Louisiana at Lafayette. He received his bachelor's in landscape architecture from Louisiana State University and master's in architecture from the University of Louisiana at Lafayette, where he held a graduate assistant role in the Coastal Communities Resilience Studio through the Institute for Water and Coastal Research. His experience working with an interdisciplinary team of social scientists, biologists, and architects continues to influence his work today.

RELEVANT PROJECT EXPERIENCE

Coastal Support Services | Jefferson Parish | Staff Team | FNI is providing coastal engineering and consulting on an as-needed basis for work throughout Jefferson Parish.

Chitimacha Master Plan - Phase II | Michael Stout Planning Services | Staff Team | FNI supported the USACE - New Orleans District with the development of a water management master plan to address water and wastewater management and future development water use needs for the Chitimacha Tribe. FNI provided support to tribal stakeholders through engagement and coordination.

Hazard Mitigation Plan | Chitimacha Tribe of Louisiana | Staff Team | FNI is working to develop a hazard mitigation plan that meets the standards of the FEMA Tribal Planning Policy, the Code of Federal Regulations Title 44, and the Robert T. Stafford Act.

Louisiana Watershed Initiative Region 2 Modeling | LADOTD | Staff Team | FNI is providing Louisiana Watershed Initiative Series II H&H modeling for Region Two HUC8s.

Lake Ralph Hall Shoreline Management Plan and Reservoir Operations Plan | Upper Trinity Regional Water District, TX | Staff Team | FNI is preparing a shoreline management plan and a reservoir operations plan for Lake Ralph Hall.

Cox Creek Remediation Phase I | Formosa Plastics Corporation | Staff Team | The Cox Creek Phase I remediation involves the removal of preproduction plastics from the ecosystem. The project is located on an impounded reach of Cox Creek and includes approximately four miles of shoreline. The plastics were removed mechanically, and the disturbed areas were revegetated with native upland and wetland plants.



Tom Dixon

Environmental Scientist/Ecologist/Permitting

EXPERIENCE

21 years

EDUCATION

MS, Wildlife Ecology, Texas A&M University

BS, Wildlife Ecology, Texas A&M University

REGISTRATION

Section 10(A) Permit,
U.S. Fish and Wildlife
Service, #TE44547B-0

PROFESSIONAL AFFILIATIONS

Gulf of Mexico
Alliance, Member

Restore America's
Estuaries, Member

Western Dredging
Association, Member

Tom Dixon is an FNI Associate and an Environmental Group Manager with experience emphasizing wildlife habitat management, wetland ecology, ecological processes and functions, and how these topics pertain to project planning, design and environmental regulatory compliance.

Tom's main experiences involve work with federal and state agencies, river authorities, municipalities, energy development (e.g., transmission routing, oil and gas exploration, wind project planning), transportation improvements (ports, roads, rail, navigation channels) and wetland and coastal restoration. Most work pertains to compliance with National Environmental Policy Act (NEPA), Clean Water Act, Endangered Species Act, Rivers and Harbors Act and Coastal Zone Management Act.

RELEVANT PROJECT EXPERIENCE

Bayou Eau Noire Ridge and Marsh Restoration | Plaquemines Parish | Environmental Scientist | FNI developed engineering analyses associated with the creation of more than 400 acres of marsh and 26,500 LF of coastal ridge habitat, along with earthen containment dikes, marsh creation fill area design and earth ridge design. Tom led all agency coordination efforts, including facilitation of a Pre-Application Meeting with USACE and supporting federal and state agencies. He also consulted with pilots of the Mississippi River on location of borrow material.

Coastal Texas Protection and Restoration Study | Texas GLO | Project Scientist | FNI developed the EIS for potential ecosystem restoration and coastal storm risk management projects along the entire Texas coast. Tom oversaw many aspects of the EIS development including interagency meeting facilitation, preparation of and attendance at public meetings, coordination with the USACE/GLO and other state and federal agencies, and preparation of the EIS. He helped develop

a mitigation model to compensate for potential impacts to estuarine and tidal vegetation communities. Projects proposed include oyster reef, bird islands, marsh restoration, and hydrological improvements. He assisted with the Biological Assessment, use of sea level rise models to develop restoration plans, preparation of a Conceptual Ecological Model, and assistance with HEP and WVA modeling.

Magnolia Inlet Restoration | Texas A&M University | Project Manager | FNI assisted with the design and acquisition of the permit for the Magnolia Inlet Restoration project, which involved reopening a pass between Matagorda Bay and the Magnolia Inlet tertiary estuarine system, near Magnolia Beach, Texas. The project restored the water exchange between the bay and semi-enclosed estuarine habitat to improve water quality, enhance intertidal marsh and create conditions for the re-establishment of oysters. Tom led a permitting effort to restore tidal exchange at the inlet to Old Town Lake.



Kelsey Calvez

Environmental Scientist/Ecologist/Permitting

EXPERIENCE

9 years

EDUCATION

MS, Geographic Information System, Pennsylvania State University

BS, Environmental Studies, Texas A&M University

PROFESSIONAL AFFILIATIONS

Environmental Water and Resources Institute, Member

Kelsey Calvez is an Environmental Project Manager and has experience managing coastal restoration projects that involve delineating coastal resources (oyster reefs, wetlands, seagrass beds) and permitting projects under Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act.

Kelsey's experience is focused on federal and state natural resource permitting to support environmental permit applications and NEPA documentation. She has experience with field surveys and ecological modeling (HEP, WVA, and HGM models), and is proficient in statistical and GIS analyses. She has extensive experience working with the USACE - Galveston and Fort Worth Districts Regulatory Divisions, as well as multiple resource agencies across Louisiana and Texas, including LDWF, CPRA, TPWD, and TX GLO.

RELEVANT PROJECT EXPERIENCE

Upper Barataria Terracing Phase I | Jefferson Parish | Ecologist/GIS Analyst | FNI is providing preliminary engineering and design, permitting assistance, environmental assessment, field data collection, research and grant development for the Upper Barataria Terracing project. Kelsey has managed all spatial data and producing graphics illustrating the terracing project and its relationship and importance to other CPRA projects within the Barataria Basin.

No Name Bayou Marsh Creation Biological Assessment Survey | CPRA | Assistant Project Manager | Kelsey was part of a team of biologists who performed a biological assessment survey in Calcasieu Lake in Cameron Parish. The survey covered over 1,500 acres and included collecting data on bottom-types using in-situ poling methods, oyster resource density using quadrats and oyster dredges, and bathymetry using side scan sonar. Kelsey helped with development of the bathymetric and substrate maps within the survey area.

Coastal Texas Protection and Restoration Mega-Feasibility Study | Texas GLO | Ecologist/Ecological Modeler | Kelsey assisted the development of the EIS, involving an array of alternatives to address both ecosystem restoration (ER) and coastal storm risk management (CSRM) opportunities covering the entire Texas Coast. She has assisted with many aspects of the EIS, including NEPA documentation and analysis, alternatives analysis, technical writing and review, GIS analysis and database management, public involvement meetings, and management and documentation of public comments. In coordination with the Study's Interagency Team, Kelsey developed the ER components using the NOAA SLR and C-CAP Land Cover datasets to analyze existing and future conditions under project scenarios. She was also involved with the HEP and WVA modeling of project alternatives, in addition to GIS mapping and analysis and database management.



Ryan Fikes CERP

Funding Specialist/Coastal Ecologist

Ryan Fikes is a trained biologist with knowledge in coastal ecology, habitat restoration, and providing scientific expertise to identify and evaluate restoration projects in the Gulf of Mexico.

EXPERIENCE

17 years

EDUCATION

MS, Biology (Marine Biology/Coastal Ecology), Texas A&M University

BS, Biology (Marine Science), Texas A&M University

REGISTRATION

Certified Ecological Restoration Practitioner, #0485

PROFESSIONAL AFFILIATIONS

Society for Ecology Restoration International, Member

Texas Society for Ecological Restoration, Member

Ryan has worked to leverage existing resources to promote and facilitate innovative approaches to conserving ecosystems and their resources. This includes work such as the development of conceptual frameworks for assessing estuarine restoration needs based on acute and chronic ecosystem stressors. Ryan has experience advising state and federal leadership on issues associated with the effects of oil spills on habitat and wildlife, and he has assisted in evaluating the merits of both state and national restoration plans. Ryan has extensive knowledge of the funding mechanisms and coordinating bodies related to Deepwater Horizon oil spill recovery and restoration. His work on the oil spill has centered around connecting the science and policy in evaluating, sequencing and planning large-scale ecosystem restoration efforts.

RELEVANT PROJECT EXPERIENCE

Coastal Support Services | Jefferson Parish | Environmental Scientist |

FNI is providing coastal engineering, consulting and staff augmentation on an as-needed basis for work throughout Jefferson Parish. Ryan is providing technical and grant writing expertise to develop a large-scale marsh restoration project in Barataria Bay and assisting with submittal for federal funding. Once funded, this project will develop roughly 115 acres of marsh terraces to replace lost marsh habitat in upper Barataria Bay, including bird nesting habitat and economically important fisheries habitat.

Port of Corpus Christi Channel Deepening | USACE | Coastal Ecologist

FNI is providing the third-party EIS for USACE's review of the permit application to deepen the ship channel. The project involves dredging, placement and beneficial use to repair storm damage, nourish barrier islands, restore habitat and elevate dikes. Ryan provided expertise to support the EIS team by evaluating project alternatives and their impacts, including beneficial use alternatives and their ecosystem restoration potential.

Sea Level Rise Assessment for the Northern Gulf of Mexico* | N.O.A.A. |

Project Manager/Administrator | This project involved the development of an updated set of GIS products and maps of critical coastal and nearshore habitats for selected sites in the Northern Gulf of Mexico. In addition, the project developed a data platform that includes climate change hazard variables. Ryan provided management and technical oversight for the project and coordinated activities with TNC, sub-grantees, and state and federal leadership.

West Galveston Bay Regional Sediment Management* | N.O.A.A./Atkins Global |

Project Manager | Ryan provided project management and oversight, via sub-award, for the development of a Sediment Plan for an area that was seriously impacted by Hurricane Ike in 2008. The goal was to identify opportunities for beneficial use of dredged material and to leverage various programs and projects to restore coastal marshes and shorelines within the bay.

**project experience prior to joining FNI*



John Rinacke CMIT

Cost Estimator

John Rinacke is part of our in-house cost estimating group and supports projects from planning through construction by developing project cost estimates.

EXPERIENCE

7 years

EDUCATION

MS, Construction Management, The University of Texas at El Paso

BS, General Studies, University of Missouri

CERTIFICATION

Construction Manager in Training

PROFESSIONAL AFFILIATIONS

Construction Management Association of America, Member

John is a Lead Estimator in FNI's Program Management Group. Prior to joining FNI, he worked for the Texas Department of Transportation as an Inspector and Project Manager. He has experience managing roadway and bridge construction projects, including installation of underground utilities, storm sewer, traffic control, traffic signals, utility conflict analysis/coordination, project record keeping, monthly pay estimates and construction materials testing.

RELEVANT PROJECT EXPERIENCE

Martin Dies Jr. State Park Fishing Pier Repairs Preliminary Design | Texas Parks and Wildlife Department | Cost Estimator | FNI provided preliminary design services to install two new fishing piers and repair one damaged wooden pier at Martin Dies Jr. State Park. The project included the Fishing Pier at Hen House Ridge Unit, Fishing Pier at Walnut Ridge Unit, and the Observation Pier at Hen House Ridge Unit. Design components included piers, lighting, shoreline stabilization, parking, fish cleaning station improvements, restroom improvements, and accessibility.

Mesquite Point Boat Ramp | Jefferson County, TX | Cost Estimator | John provided cost estimates for this important public boat ramp at Walter Umphrey State Park, including existing ramp/pier demolition, steel sheetpile bulkhead, dewatering, dredging, concrete ramp, wall and courtesy piers, riprap toe protection, ADA parking, paving, and boat mooring hardware. Dewatering costing considered a range of traditional cofferdam and inflatable/fillable barriers in the high current Sabine Pass. The project used TPWD grants and met their requirements for recreational features.

Hike-and-Bike Trail Development | City of Corpus Christi, TX | Cost Estimator | FNI developed the exhibits for use in the application and developed an OPCC using TxDOT Bid Items. The City wanted to use the old timber pilings from the Holly Railroad Trestle for the foundation of a new hike and bike trail connecting Corpus Christi to Flour Bluff.

2022 Shannon Pump Station FEMA Assistance | Gulf Coast Water Authority | Cost Estimator | FNI performed structural, geotechnical, geomorphological, civil, hydraulic and construction engineering analyses, which continued the coordination efforts with FEMA concerning the potential mitigation strategies for the Shannon Pump Station Intake Structure. John supported this project with estimating costs.

Culvert Replacement | Lavaca-Navidad River Authority, TX | Cost Estimator | FNI provided design and construction services for the culvert replacement at the main access road in Lake Texana Park. The project includes removing the existing crossing and placing concrete abutments and rock riprap for erosion protection.



Blake Cotton PE, LEED® AP

Geotechnical Engineer

Blake Cotton's expertise includes more than 30 years as a senior geotechnical engineer in Louisiana and Texas, giving him insights into the entire Gulf Coast region and the challenges facing those communities.

EXPERIENCE

32 years

EDUCATION

MS, Civil Engineering, The University of Texas at Austin

BS, Architectural Engineering, The University of Texas at Austin

REGISTRATION

Civil Engineer, Louisiana
#PE.0028039

LEED Accredited
Professional, U.S. Green Building Council

Senior Executives Institute,
American Council of Engineering Companies

PROFESSIONAL AFFILIATIONS

Geoprofessional Business Association, Member

American Society of Civil Engineers, Member

Blake's experience includes extensive work rebuilding and improving levees and other flood control structures in New Orleans after Hurricane Katrina in 2005. His knowledge about the special needs surrounding structures in areas with soft soil is especially valuable on coastal sites. Blake currently serves as the Geotechnical Committee Chairman for the Geoprofessional Business Association.

RELEVANT PROJECT EXPERIENCE

Barataria Basin Ridge and Marsh Creation - Spanish Pass Increment (BA-203)* | CPRA | Principal-in-Charge |

The project included the restoration of approximately 120 acres of the historic ridge and 1,930 acres of marsh along the banks of Spanish Pass, providing coastal upland habitat, restoring natural hydrology, and providing a buffer from wave action and storms. Blake was the Principal-in-Charge for the geotechnical work. The geotechnical scope included field exploration efforts in open water and marsh environments, as well as geotechnical subsurface exploration in the Mississippi River. Various types of water-based field equipment were utilized due to the variability in site conditions and to satisfy various landowner and pipeline owner restrictions.

Port Fourchon Federal Navigation Improvements* | Greater Lafourche Port Commission | Principal-in-Charge | Blake was responsible for the geotechnical portion of the initial environmental impact and feasibility phase. Ultimately, the project included deepening and widening the navigational channel at Port Fourchon, reinforcing bulkheads, extending existing jetties

and constructing a new turning basin and an additional slip. The geotechnical effort included field exploration within the ship channel, laboratory testing and engineering analyses. The geotechnical scope included global slope stability analyses of the channel and jetty improvements, settlement and time-rate consolidation of the jetty and bulkhead improvements, and design of the bulkhead for the new turning basin and slip.

Geotechnical Response following Hurricane Katrina* | USACE - New Orleans District | Program Director |

Blake served in multiple roles as part of a JV created in 2007 to service a \$100 million and subsequent \$50 million (2010) geotechnical IDIQ contracts. Blake initially served as the JV's Laboratory Manager to develop and set-up a grassroots, state-of-art production geotechnical laboratory to support the IDIQ task orders. Once the laboratory was fully operational, Blake transitioned into the role of Engineering Manager to facilitate the execution of all engineering task orders under the IDIQ contract. Finally, Blake transitioned to the role of Program Director for the contract.

**project experience prior to joining FNI*



Alicia Sellers PE

Geotechnical Engineer

Alicia Sellers has successfully managed a diverse portfolio of geotechnical projects in the coastal, industrial and commercial sectors.

EXPERIENCE

9 years

EDUCATION

MS, Civil Engineering,
Louisiana State University

BS, Civil Engineering,
Louisiana State University

REGISTRATION

Professional Engineer
Louisiana, #PE.0044275

PROFESSIONAL AFFILIATIONS

Geoprofessional Business
Association, Member

American Society of Civil
Engineers - New Orleans
Branch, Member

Alicia's coastal project experience includes marsh and ridge creation/restoration, long-distance sediment pipelines, shoreline protection, levees and floodwalls, beneficial use of dredged material, breakwaters, jetties, navigation channels, and port and dock expansions. Her leadership in these projects has consistently delivered impactful results, demonstrating her expertise and commitment to excellence in geotechnical engineering.

RELEVANT PROJECT EXPERIENCE

Coastal Support Services | Jefferson Parish | Staff Team | FNI is providing coastal engineering and consulting on an as-needed basis for work throughout Jefferson Parish. Alicia is supporting these services by providing geotechnical guidance in the development of a large-scale marsh restoration project in upper Barataria Bay that will create roughly 115 acres of marsh terraces.

National Oceanic and Atmospheric Administration Infrastructure and Investment Jobs Act Coffee Island Restoration | The Nature Conservancy | Staff Team | As a subconsultant, FNI is providing design services for a 1.5-mile living shoreline along Coffee Island. Alicia is supporting the project by providing geotechnical review/guidance of the plans and specifications prepared for the project.

BA-203 Barataria Basin Ridge and Marsh Creation – Spanish Pass Increment* | CPRA | Geotechnical Engineer/Project Manager | Alicia served as the geotechnical project manager and engineer for this large-scale marsh and ridge restoration project. She provided field exploration services in open water and marsh environments, including the Mississippi River, laboratory testing, and

engineering analyses for containment dikes, ridges, and marsh creation areas. Alicia also provided stability analyses of the Mississippi River slopes to determine a suitable borrow area excavation plan that met USACE requirements.

BA-206 Northeast Turtle Bay Marsh Creation and Critical Area Shoreline Protection* | USDA (NRCS) | Geotechnical Engineer/Project Manager | Alicia served as the geotechnical project manager and engineer for this project which aimed to create/nourish over 600 acres of marsh and provide approximately 2,870 feet of shoreline protection along Northeast Turtle Bay.

BS-33 East Bank Sediment Transport Corridor* | CPRA and St. Bernard Parish Government | Senior Geotechnical Engineer/Project Manager | Alicia served as the geotechnical project manager and engineer for this 12-mile-long sediment pipeline corridor project, providing field exploration; laboratory testing; slope stability analyses of pipeline corridor structures, containment dikes, earthen embankment waterway crossings, and Mississippi River levees; settlement analyses; and deep foundation analyses.

**project experience prior to joining FNI*



Lewis Bernard ^{PE}

Mechanical Engineer

Lewis Bernard is a Project Manager in FNI's Transmission and Utilities Group, and is an experienced Mechanical Engineer who has led diverse design teams on multimillion-dollar projects.

EXPERIENCE

18 years

EDUCATION

BS, Mechanical Engineering, Tulane University

REGISTRATION

Professional Engineer
Louisiana, #PE.0036278

Lewis' expertise covers a wide range of pump station mechanical system elements, and he has experience with permitting from federal, state and local agencies. Lewis brings a strong understanding of every aspect of stormwater pump stations and the experience to lead projects involving the kinds of large pumps and drivers required to clear massive amounts of water during major storms.

RELEVANT PROJECT EXPERIENCE

Dillard Wetland Restoration | City of New Orleans | Pump Station Lead | FNI is designing stormwater diversion features, new weirs and water control devices, wetlands and bioswales, a vegetation management and control plan, and boardwalks. Lewis led the design of a stormwater pump station to bring water from the surrounding neighborhood and deposit it into the project site to maintain a natural wetland. Lewis designed a low-impact station to blend into the recreational park while providing debris removal upstream of the station to prevent urban pollution from entering the wetland.

Permanent Canal and Closures Project* | CPRA, Jefferson and Orleans Parishes | Mechanical Technical Reviewer | Lewis was hired by the CPRA to perform a third-party technical review on behalf of the local sponsors (Sewerage and Water Board of New Orleans and Jefferson Parish Department of Drainage). Lewis reviewed all process mechanical and MEP drawings, design reports, specifications and shop drawings and attended progress meetings, pump tests, and site visits to ensure that when the USACE had completed the project and turned it over to the local sponsor that it could be operated and maintained in a cost-effective manner.

Lewis participated in design reviews and coordinated with the contractor, design engineer, and the local sponsor to avoid conflicts prior to construction.

New Rosethorne Wastewater Treatment Plant (WWTP)* | Jefferson Parish | Project Manager | Lewis redesigned the new WWTP to receive and treat twice the original design capacity. Lewis led the sanitary and hydraulic design of the treatment equipment, piping, pumps and rehabilitated the existing influent pump station. Lewis coordinated efforts with the environmental scientists to confirm there would be negligible impact to the surrounding wetlands and effluent estuary.

Scarsdale Drainage Pump Station Hazard Mitigation Project* | Plaquemines Parish | Project Manager/Lead Mechanical Engineer/Construction Manager | Lewis led the mechanical design of a FEMA-funded grant to repair and then relocate all existing mechanical and electrical equipment required to drive four 84-inch horizontal screw pumps from a new operating floor above the base flood elevation. Lewis selected the new parallel offset gear drive and designed new fuel, coolant, water and compressed air systems to support the relocated 900 HP engine.

**project experience prior to joining FNI*



Barry Fehl DSc, PE

Structural Engineer

Dr. Barry Fehl is a structural engineer with more than 40 years of design and project management experience.

EXPERIENCE

44 years

EDUCATION

Doctor of Science, Civil Engineering, Washington University

MEng, Structures, The University of Texas at Austin

BS, Civil Engineering, University of Missouri-Rolla

REGISTRATION

Professional Engineer Louisiana, #PE.0033185

PROFESSIONAL AFFILIATIONS

American Society of Civil Engineers, Member

American Concrete Institute, Member

Society of American Military Engineers, Member

United States Society on Dams, Member

This experience includes many large projects, providing Barry an understanding of the requirements of these types of projects with respect to coordination, schedule, and budget. His primary expertise is related to the design and analysis of large, civil works projects, including flood protection and navigation. This includes working on pumping stations, floodwalls, levees, diversions, locks, and dams for projects located throughout the United States.

RELEVANT PROJECT EXPERIENCE

WSLP Reaches 105 and 108 | USACE - New Orleans District | Senior Structural Engineer | FNI performed the geotechnical, mechanical, and electrical engineering for two reaches totaling more than four miles. Barry provided guidance on various FNI aspects of the project, including the structural design performed by others. Geotextile reinforced levee sections were developed by FNI in combination with floodwalls and drainage structures by others. There were three drainage structures and T-walls that FNI analyzed for seepage and stability, calculated unbalanced loads, and estimated pile capacities.

Sabine Pass to Galveston Bay, Orange Coastal Storm Risk Management | USACE - Galveston District | Senior Structural Engineer | The Sabine Pass to Galveston Bay-Orange segment includes 26.7 miles of new Coastal Storm Risk Management infrastructure in southeast Texas at the Sabine and Neches River floodplains from Orange to west of Orangefield, Texas. The project is being designed to improve the region's preparation for natural disasters and fortify resilience against effects of climate change, sea-level rise, and extreme rainfall. FNI is part of a large team performing the design. Barry is the lead structural engineer on the project for FNI and is providing guidance and

oversight on structural aspects of the project. This has included the design of a typical T-wall monolith, a gate monolith, a vehicular closure gate, and drainage structures.

Algiers Floodwall and Floodgates* | USACE - New Orleans District | Senior Structural Engineer | Barry managed the development of plans and specifications for floodwalls and floodgates in reaches WBV-4.2, 5.2, and 6.2 along the Algiers Canal. The designs for these reaches included floodwalls and floodgates. Duties included providing oversight of the floodwall, gate, and levee designs. This included assisting in the development of the design criteria, resolving issues with property owners, coordinating with the USACE, and verifying the necessary resources were available for completing the project.

Permanent Canal Closure and Pumping Stations at 17th Street, Orleans Avenue and London Avenue Canals* | USACE - New Orleans District | Project Manager | Barry provided design review and construction management support on a design-build contract to construct three pump stations at the 17th Street, Orleans, and London Avenue Canals.

**project experience prior to joining FNI*

FNI Volunteering Efforts for Jefferson Parish



Christmas Tree Marsh Restoration Project | February 2024

Hosted by Jefferson Parish

FNI staff from the Water Resource Design Group and Environmental Science Group volunteered at the annual TreeCycling event where Christmas trees are diverted from landfills and are used to create wave dampening fences to protect the shoreline from coastal erosion. The trees collected by the team were placed in Barataria Basin by boat as an effort to preserve the impacted Jefferson Parish Coastline.



Bucktown Marsh Cleanup | March 2024

Hosted by Coalition to Restore Coastal Louisiana (CRCL) and Jefferson Parish

FNI's New Orleans office staff members Matt Salmon and Nina Reins volunteered for the Bucktown Marsh Cleanup. This annual event is hosted by the Pontchartrain Conservancy and supported by Jefferson Parish. The work included removal of litter around Bucktown marsh and the surrounding park. This volunteering effort positively supports the management of the only urban wetlands on the South Shore of Lake Pontchartrain and has a meaningful impact to the native flora and fauna, which helps to keep the coastline clean.

TEC Professional Services Questionnaire: Eustis Engineering, LLC

Technical Evaluation Committee (TEC) Questionnaire

Instructions

- The Technical Evaluation Committee (TEC) Questionnaire shall be used for professional services related to architecture, engineering, or survey projects.
- **The TEC Questionnaire should be completely filled out. Complete and attach ALL sections. Insert “N/A” or “None” if a section does not apply or if there is no information to provide.**
- Questionnaire must be signed by an authorized representative of the Firm. Failure to sign the questionnaire shall result in disqualification of proposer pursuant to J.P. Code of Ordinances Sec. 2-928.
- All subcontractors must be listed in the appropriate section of the Questionnaire. Each subcontractor must provide a complete copy of the TEC Questionnaire, applicable licenses, and any other information required by the advertisement. Failure to provide the subcontractors' complete questionnaire(s), applicable licenses, and any other information required by the advertisement shall result in disqualification of proposer pursuant to J.P. Code of Ordinances Sec. 2-928.
- If additional pages are needed, attach them to the questionnaire and include all applicable information that is required by the questionnaire.

TEC Professional Services Questionnaire

A. Project Name and Advertisement Resolution Number:

SOQ 24-020, Resolution No. 144205
Coastal Engineering Consulting Services As-Needed Parish Wide

B. Firm Name & Address:

Eustis Engineering L.L.C.

3011 28th Street, Metairie, Louisiana 70002

C. Name, title and contact information of Principal, as defined in Section 2-926 of the Jefferson Parish Code of Ordinances, who is a registered, licensed architect, professional engineer, or surveyor in the State of Louisiana:

Gwendolyn P. Sanders, P.E. / President / 504-834-0157 / gsanders@eustiseng.com

D. Name and contact information of employee who is a registered and licensed architect, professional engineer, or surveyor in the State of Louisiana in the applicable discipline. A subcontractor may be substituted here only if the advertised Project requires more than one discipline.

Gwendolyn P. Sanders, P.E. / President / 504-834-0157 / gsanders@eustiseng.com

E. Please provide the number of employees whose primary function corresponds with each category:

<u>7</u> Administrative	<u> </u> Estimators	<u> </u> Specification Writers
<u> </u> Architects (Licensed)	<u>2</u> Geologists	<u> </u> Structural Engineers
<u> </u> Chemical Engineers	<u>17</u> Geotechnical Engineers	<u>3</u> Graduate Engineers
<u> </u> Civil Engineers	<u> </u> Interior Designers	<u> </u> Project Managers
<u> </u> Construction Inspectors	<u> </u> Landscape Architects	<u>11</u> Clerical
<u> </u> Ecologists	<u> </u> Land Surveyor	<u> </u> Grant/Funding Specialist
<u> </u> Electrical Engineers	<u> </u> Mechanical Engineers	<u> </u> Sanitary Engineers
<u>5</u> Engineer Intern	<u> </u> Environmental Engineers	<u>47</u> Other
<u> </u> Professional Land Surveyors		<u>92</u> TOTAL

F. Is this submittal is a JOINT-VENTURE? Please check: YES ☐ NO ☒

If marked "No," skip to Section I. If marked "Yes," complete Sections G-H.

TEC Professional Services Questionnaire

G. If submittal is by JOINT-VENTURE, list the firms participating and outline specific areas of responsibility (including administrative, technical, and financial) for each firm. Please attach additional pages if necessary.

1. Not applicable.

2.

H Has this JOINT-VENTURE previously worked together: Please check:

YES ☐ NO ☐

I. List all subcontractors anticipated for this Project. Please note that all subcontractors must submit a fully completed copy of this questionnaire, applicable licenses, and any other information required by the advertisement. See Jefferson Parish Code of Ordinances, Sec. 2-928(a)(3). Please attach additional pages if necessary.

Name & Address:	Specialty:	Worked with Firm Before (Yes or No):
1. Not Applicable.		
2.		
3.		

J. Please specify the total number of support personnel that may assist in the completion of this Project:

We estimate **16** individuals will be needed to complete the geotechnical services associated with projects under this advertisement. This includes a three-member drill crew as well as laboratory, clerical, and engineering staff. More employees can be added, as necessary, to complete any project.

TEC Professional Services Questionnaire

K. List the professional in charge, key persons, specialists, and individual consultants anticipated for this Project and provide their relevant information below. If necessary, please attach additional documentation (i.e., resume) that demonstrates the employment history and experience of the Firm's key persons that may assist in the completion of this Project. Please attach additional pages if necessary.
PROFESSIONAL IN CHARGE OF PROJECT:
Name & Title:
Gwendolyn P. Sanders, P.E. / President and Project Principal
Project Assignment:
Project Principal / Limited Liability Corporation Member
Name of Firm with which Associated:
Eustis Engineering L.L.C.
Years' Experience with This Firm:
31
Education: Degree(s)/Year/Specialization:
Master of Science / 1992 / Civil Engineering Bachelor of Science / 1990 / Civil Engineering
Active Registration: Year First Registered/Discipline:
Louisiana: 1997 / Civil Engineering Mississippi: 2003 / Engineering Texas: 2020 / Civil Engineering
Other Experience and Qualifications Relevant to the Proposed Project:
<p>Mrs. Sanders began her professional career with Eustis Engineering in 1993. Over the past 31 years, she has worked her way up through the ranks of the engineering department including Associate Engineer, Project Engineer, Project Manager, and Engineering Manager. She has been on Eustis Engineering's Board of Directors since 1997. In 2020, Mrs. Sanders became Eustis Engineering's first woman president after previously serving as a Vice President and Executive Vice President. As President, she is responsible for day-to-day business operations including quality, safety, marketing, and long-term strategic growth. She also actively participates in the engineering design and review processes.</p> <p>Considering her experience with Eustis Engineering, a leading Gulf Coast geotechnical firm, Mrs. Sanders has extensive experience in soft soils and working on projects in coastal Louisiana. She has been directly and indirectly involved in numerous projects throughout the Gulf Coast area, particularly in the Greater New Orleans area. Mrs. Sanders has been involved in and managed every aspect of a geotechnical engineering project, namely developing appropriate scopes of work for projects, planning and coordinating field investigations, assigning laboratory testing, performing geotechnical engineering analyses, preparing detailed reports with engineering analyses and recommendations, reviewing reports prepared by other professionals, and consulting with clients. Much of her work experience has dealt with identifying soil properties, developing criteria for design of foundations, and determining an appropriate foundation to support the structure under consideration.</p> <p>In 2017, Mrs. Sanders served as program advisor for the Deep Foundations Institute's 42nd annual conference. She has twice been named one of the 50 Women of the Year by New Orleans CityBusiness, first in 2017 and again in 2021. She is currently serving as an associate member of the ASCE Standards Committee for the Design of Foundations. She has a keen eye for detail and is a stickler for quality. Her work ethic, combined with her communication skills, translates to Mrs. Sanders' ability to deliver successful geotechnical engineering projects to her clients.</p> <p>Over the years, Mrs. Sanders has been involved with more than 2,800 projects in some capacity, including the following contained within this submittal:</p> <ul style="list-style-type: none">• State of Louisiana - Coastal Protection and Restoration Authority (CPRA), Mid-Barataria Sediment Diversion Project, Mississippi River Mile 60.7 AHP, Vicinity of Ironton and Lafitte, Louisiana (23325.00-.11)

K. List the professional in charge, key persons, specialists, and individual consultants anticipated for this Project and provide their relevant information below. If necessary, please attach additional documentation (i.e., resume) that demonstrates the employment history and experience of the Firm's key persons that may assist in the completion of this Project. Please attach additional pages if necessary.

PROFESSIONAL IN CHARGE OF PROJECT:

Name & Title:

Gwendolyn P. Sanders, P.E. / President and Project Principal

- State of Louisiana - Coastal Protection and Restoration Authority (CPRA), Grande Cheniere Ridge Marsh Creation Area (BA-0240), Plaquemines Parish, Louisiana (24364)
- State of Louisiana - Coastal Protection and Restoration Authority (CPRA), Grande Bayou Ridge and Marsh Restoration, Plaquemines Parish, Louisiana (24365)
- State of Louisiana - Coastal Protection and Restoration Authority (CPRA), Maurepas Diversion and West Shore of Lake Pontchartrain, St. John the Baptist Parish, Louisiana (24384.-.02)
- State of Louisiana - Coastal Protection and Restoration Authority (CPRA), Marsh Creation Projects in the Breton Sound, St. Bernard Parish, Louisiana (24431.00-.01 & 24762)
- State of Louisiana - Grand Isle State Park, Phase I and II Improvements, Jefferson Parish, Louisiana (24093.00-.01 and 25239)

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
Name & Title:
James J. Hance, P.E. / Senior Project Manager and Vice President (Finance)
Project Assignment:
Senior Project Manager / Limited Liability Corporation Member
Name of Firm with which Associated:
Eustis Engineering L.L.C.
Years' Experience with This Firm:
20
Education: Degree(s)/Year/Specialization:
Master of Business Administration / 2011 / Business Administration Master of Science / 2003 / Civil Engineering (Geotechnical) Bachelor of Science / 1998 / Civil Engineering
Active Registration: Year First Registered/Discipline:
Louisiana: 2004 / Civil Engineering Mississippi: 2012 / Engineering Texas: 2010 / Civil Engineering
Other Experience and Qualifications Relevant to the Proposed Project:
<p>For 3 years, Mr. Hance was a Staff Engineer and Assistant Project Manager on numerous design and construction phase projects in the Washington D.C. metropolitan area. His duties included management of field technicians who performed concrete, asphalt, and soils testing as well as foundation construction observations of spread footings, mats, drilled shafts, augercast piles, driven steel H-piles, tiebacks, and underpinning piers.</p> <p>After relocating to Austin, Texas, to eventually pursue graduate studies in engineering, Mr. Hance acted as an assistant project engineer for several design phase projects. These projects involved retention and stream bank stabilization applications. The types of systems designed included mechanically stabilized earth (MSE), single and multi-tiered walls and slopes utilizing geogrid reinforcement, and the use of geosynthetic materials in engineering applications such as erosion control solutions for open channel flow conditions.</p> <p>Mr. Hance was a graduate research assistant at the University of Texas at Austin where he published his Master's thesis in association with a Master of Science in Civil Engineering degree: <i>Assessment of Seafloor Slope Stability Based on a Database of Published Submarine Slope Failures</i>.</p> <p>Mr. Hance has spent the past 20 years with Eustis Engineering and has worked on many projects for Jefferson Parish. During his tenure at Eustis Engineering, he has earned four promotions: Project Engineer (July 2004), Project Manager (November 2007), Vice President (August 2011), and Chief Financial Officer (August 2012). Mr. Hance manages geotechnical services associated with commercial, industrial, environmental, and civil works projects. His responsibilities include managing a wide variety of design and construction phase projects (public and private sectors), management of staff engineers and development of their skill assets, developing scopes of work and appropriate fees for new projects with clients, participating in business development and marketing ventures, and negotiating contracts.</p> <p>Some of his experience relative to this submittal includes the following:</p> <ul style="list-style-type: none"> • State of Louisiana - Coastal Protection and Restoration Authority (CPRA), Bayou Dularge Ridge, Marsh, and Hydrologic Restoration Project, Terrebonne Parish, Louisiana (23970.00, .01)

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:**Name & Title:**

James J. Hance, P.E. / Senior Project Manager and Vice President (Finance)

- State of Louisiana - Coastal Protection and Restoration Authority (CPRA), Mid-Barataria Sediment Diversion Project, Mississippi River Mile 60.7 AHP, Vicinity of Ironton and Lafitte, Plaquemines and Jefferson Parishes, Louisiana (23325.00-.11)
- Jefferson Parish - Upper Barataria Terracing Project, Jefferson Parish, Louisiana (25108)
- State of Louisiana - Coastal Protection and Restoration Authority (CPRA), Grande Cheniere Ridge Marsh Creation Area, Plaquemines Parish, Louisiana (24364)
- State of Louisiana - Coastal Protection and Restoration Authority (CPRA), Grand Bayou Ridge and Marsh Restoration, Plaquemines Parish, Louisiana (24365)
- State of Louisiana - Coastal Protection and Restoration Authority (CPRA), Maurepas Diversion and West Shore of Lake Pontchartrain, St. John the Baptist Parish, Louisiana (24384.00 -.02)
- State of Louisiana - Coastal Protection and Restoration Authority (CPRA), Marsh Creation Projects in the Breton Sound, St. Bernard Parish, Louisiana (24431.00-.01 & 24762)
- State of Louisiana - Grand Isle State Park, Phase I and II Improvements, Jefferson Parish, Louisiana (24093.00-.01 and 25239)
- State of Louisiana – Department of Wildlife and Fisheries, Marsh Island Refuge Water Control Structure Replacements, Belly Dam, Joe Aucoin, and Northeast Bird Island, Iberia Parish, Louisiana (24170.00- .01)

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
Name & Title:
Sean G. Walsh, P.E. / Engineering Manager and Vice President (Engineering)
Project Assignment:
Project Manager
Name of Firm with which Associated:
Eustis Engineering L.L.C.
Years' Experience with This Firm:
11
Education: Degree(s)/Year/Specialization:
Master of Science / 2010 / Civil Engineering Bachelor of Science / 2007 / Civil Engineering
Active Registration: Year First Registered/Discipline:
Louisiana: 2013 / Civil Engineering
Other Experience and Qualifications Relevant to the Proposed Project:
<p>For his first 5 years after graduation, Mr. Sean G. Walsh, P.E., was a Project Engineer on numerous projects in New York and the New Orleans metropolitan area where he gained experience in civil, geotechnical, and geo-environmental engineering projects for a variety of public and private clients.</p> <p>Since joining Eustis Engineering in 2012 as a Project Engineer, Mr. Walsh has been responsible for developing and managing engineering package preparations (e.g., engineering design and analysis, reporting, developing construction and permit drawings, contract specifications, cost estimates, and design reporting) for a diverse range of design and analysis projects, including deep foundations, excavation support systems, utility foundations, slope stabilization, solid waste closure systems, levee inspection/safety, and seepage modeling.</p> <p>Mr. Walsh was promoted to Project Manager in 2017, Engineering Manager in 2019, and Vice President in 2020. Mr. Walsh is also a graduate of the 2017 New Orleans Regional Leadership Institute (NORLI), a 1-year training program designed to help shape community leaders.</p> <p>During his employment with Eustis Engineering, Mr. Walsh has provided engineering services on more than 650 projects. Mr. Walsh has risen to the level of Vice President and Engineering Manager, in which he is responsible for personnel resource allocation, the overall engineering schedule, and execution of engineering services. Mr. Walsh also functions as a mentor to the engineering staff.</p> <p>A large portion of Mr. Walsh's experience, before and after joining Eustis Engineering, involved development of design and construction recommendations associated with flood protection systems in southeastern Louisiana. Mr. Walsh has served as the project engineer and project manager responsible for the development and implementation of geotechnical exploration programs; development of soil testing laboratory programs; and interpretation of the results to evaluate strength, compressibility, and general soil characterization. Mr. Walsh used these data for geotechnical designs comprising pile capacity curves; bearing capacity analyses; cantilever retaining analyses; anchored retaining wall analyses; temporary retaining structure design; time-settlement projections for earthen levees with lift schedules; soil pressure profiles; structural and earthen levee under seepage analyses; levee and bank stability by Spencer's Method of Slices and Method of Planes; reinforced embankment design; stability analyses of flood protection walls (e.g., T-walls, I-walls, L-walls, and braced 'A-Frame' walls); downdrag and settlement analyses; settlement induced bending moments (SIBM) in foundation piles; piping analyses; uplift analyses; heave analyses; three-dimensional modeling of fill and structural load placements for predictions of time-rate settlements of foundation systems; and</p>

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

Name & Title:

Sean G. Walsh, P.E. / Engineering Manager and Vice President (Engineering)

numerical modeling of soil-structure interaction (SSI) of flood protection structures by the finite element method (FEM).

Mr. Walsh has also worked on many local government projects in towns and cities including New Orleans, Golden Meadow, and Kentwood; numerous projects in Jefferson, Orleans, St. Bernard, St. Charles, and Plaquemines Parishes; several Port Commissions (e.g., Baton Rouge, New Orleans, South Louisiana); the Sewerage & Water Board of New Orleans; etc.

Regardless of the types of projects engineered for these agencies, his responsibilities have remained the same, namely defining the project philosophy; developing and maintaining the schedule; providing status reports to clients; controlling expenditures; overseeing project personnel; and reviewing the project design for compliance with engineering principles, company standards, and client requirements. He is hands-on in coordinating activities concerned with technical developments and in resolving engineering design/test problems.

Mr. Walsh's skills over the past 16 years in the industry have developed exponentially with the variety of projects that have crossed his desk. Regarding this submittal, Mr. Walsh has been directly involved with the following projects:

- State of Louisiana – Coastal Protection and Restoration Authority, Bayou Dularge Ridge, Marsh, and Hydrologic Restoration Project, Terrebonne Parish, Louisiana (23970.00, .01)
- State of Louisiana – Coastal Protection and Restoration Authority, Mid-Barataria Sediment Diversion Project, Mississippi River Mile 60.7 AHP, Vicinity of Ironton and Lafitte (Plaquemines and Jefferson Parishes), Louisiana (23325.00 - .11)
- Jefferson Parish – Upper Barataria Terracing Project, Jefferson Parish, Louisiana (25108)
- State of Louisiana – Coastal Protection and Restoration Authority (CPRA), Grand Bayou Ridge and Marsh Restoration, Plaquemines Parish, Louisiana (24365)
- State of Louisiana - Coastal Protection and Restoration Authority (CPRA), Maurepas Diversion and West Shore of Lake Pontchartrain, St. John the Baptist Parish, Louisiana (24384.00, .01)
- State of Louisiana - Coastal Protection and Restoration Authority (CPRA), Marsh Creation Projects in the Breton Sound, St. Bernard Parish, Louisiana (24431.00-.01 & 24762)
- State of Louisiana - Grand Isle State Park, Phase I and II Improvements, Jefferson Parish, Louisiana (24093.00 - .01, 25239)
- State of Louisiana, Department of Wildlife and Fisheries - Marsh Island Refuge Water Control Structure Replacements, Belly Dam, Joe Aucoin, and Northeast Bird Island, Iberia Parish, Louisiana (24170.00 - .01)

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
Name & Title:
James M. Williams, P.E. / Geotechnical Project Engineer
Project Assignment:
Project Engineer
Name of Firm with which Associated:
Eustis Engineering L.L.C.
Years' Experience with This Firm:
6
Education: Degree(s)/Year/Specialization:
Master of Science / 2018 / Civil Engineering Bachelor of Science / 2016 / Civil Engineering
Active Registration: Year First Registered/Discipline:
Louisiana: 2021 / Civil Engineering
Other Experience and Qualifications Relevant to the Proposed Project:
<p>While an undergraduate at Mississippi State University, Mr. Williams worked as both an Undergraduate Research Assistant and a Soils Laboratory Assistant. As an Undergraduate Research Assistant, Mr. Williams created a database of historic test results related to off-road vehicular mobility. He completed a statistical analysis of the database results and developed empirical relations. As a Soils Laboratory Assistant, Mr. Williams organized and instructed undergraduate student teaching exercises. He also prepared test specimens for research and teaching practices.</p> <p>As a Graduate Research Assistant, Mr. Williams continued to work with a database of historic test results. He conducted laboratory exploration of soil and soil-biochar mixture properties through standard procedures including particle size, triaxial shear testing, consolidation testing, and permeability testing. He also employed microscopy and chemical techniques to determine qualitative information related to the mineralogy and microstructure of earthen material.</p> <p>As a Project Engineer for Eustis Engineering L.L.C., Mr. Williams coordinates site access, assigns laboratory tests, and performs geotechnical engineering analyses and evaluations. Engineering analyses may include estimates of allowable bearing values; estimates of allowable pile load capacity for various types and sizes of piles; pile response to vertical and lateral loading; slope stability analyses of riverbanks, levees, and earthen structures; sheetpile wall design; wick drainage design; and settlement estimates. Mr. Williams has developed a proficiency with engineering programs such as LPILE® and GROUP® by Ensoft, Inc.; SLOPE/W by GeoStudio; Settle3 by Rocscience Inc.; and PSDDF by Timothy Stark, PhD and Hangseok Choi, PhD. He also provides technical assistance to our laboratory manager for planning, processing, and review of advanced laboratory testing. Currently, Mr. Williams is also working with the Vice President of Testing on Eustis Engineering's OpenGround® and KeyLAB® implementation.</p> <p>Mr. Williams' skills and understanding of the soft soil behavior of coastal Louisiana have developed exponentially with the variety of projects that have crossed his desk. Regarding this submittal, Mr. Williams has been directly involved with the following projects:</p> <ul style="list-style-type: none"> • State of Louisiana - Coastal Protection and Restoration Authority (CPRA), Bayou Dularge Ridge, Marsh, and Hydrologic Restoration Project, Terrebonne Parish, Louisiana (23970.00, .01) • Grand Isle Independent Levee District - Preliminary Study, Fifi Island Rock and Restoration Project, Jefferson Parish, Louisiana (25128)

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

Name & Title:

James M. Williams, P.E. / Geotechnical Project Engineer

- State of Louisiana - Coastal Protection and Restoration Authority (CPRA), Mid-Barataria Sediment Diversion Project, Mississippi River Mile 60.7 AHP, Vicinity of Ironton and Lafitte, Plaquemines and Jefferson Parishes, Louisiana (23325.00-.11)
- State of Louisiana - Coastal Protection and Restoration Authority (CPRA), Grand Bayou Ridge and Marsh Restoration, Plaquemines Parish, Louisiana (24365)
- State of Louisiana - Coastal Protection and Restoration Authority (CPRA), Maurepas Diversion and West Shore of Lake Pontchartrain, St. John the Baptist Parish, Louisiana (24384.00 -.02)
- State of Louisiana - Coastal Protection and Restoration Authority (CPRA), Marsh Creation Projects in the Breton Sound, St. Bernard Parish, Louisiana (24431.00 - .01 & 24762)
- State of Louisiana - Grand Isle State Park, Phase I and II Improvements, Jefferson Parish, Louisiana (24093.00-.01 & 25239)
- State of Louisiana – Department of Wildlife and Fisheries, Marsh Island Refuge Water Control Structure Replacements, Belly Dam, Joe Aucoin, and Northeast Bird Island, Iberia Parish, Louisiana (24170.00 - .01)

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:	
Name & Title:	
Henry C. Worley, P.E. / Geotechnical Project Engineer	
Project Assignment:	
Project Engineer	
Name of Firm with which Associated:	
Eustis Engineering L.L.C.	
Years' Experience with This Firm:	
6	
Education: Degree(s)/Year/Specialization:	
Master of Science / 2022 / Engineering Bachelor of Science / 2016 / Civil Engineering 2019 / Coastal Engineering Certificate	
Active Registration: Year First Registered/Discipline:	
Louisiana: 2021 / Civil Engineering	
Other Experience and Qualifications Relevant to the Proposed Project:	
<p>Mr. Worley received his Master of Science degree in Engineering with a focus in geotechnical and coastal engineering in 2022. For this degree, he researched consolidation testing parameters and correlations typically implemented in local practice. Mr. Worley worked at Eustis Engineering in the summer of 2015 as a student intern and returned as an assistant engineer after working for the State of Louisiana, Coastal Protection and Restoration Authority (CPRA) and others after receiving his undergraduate degree. Over the past 7 years, he has worked on a number of coastal restoration and flood protection projects for CPRA, the U.S. Department of Agriculture's Natural Resources Conservation Service (USDA NRCS), and Ducks Unlimited.</p> <p>Engineering analyses associated with these coastal engineering projects include evaluation of global and local slope stability, estimating allowable soil bearing values, estimating the total and time-rate of settlement due to fill placement and structural loads, and shallow and deep foundation evaluations. He continues to hone his knowledge with computation software such as LPILE®, GROUP®, Settle3, SLOPE/W, PSDDF, and the U.S. Army Corps of Engineers' CWALSHT.</p> <p>Mr. Worley has direct involvement with the following projects relevant to this submittal:</p> <ul style="list-style-type: none">• State of Louisiana - Coastal Protection and Restoration Authority (CPRA), Bayou Dularge Ridge, Marsh, and Hydrologic Restoration Project, Terrebonne Parish, Louisiana (23970.00-.01)• State of Louisiana - Coastal Protection and Restoration Authority (CPRA), Mid-Barataria Sediment Diversion Project, Mississippi River Mile 60.7 AHP, Vicinity of Ironton and Lafitte, Plaquemines and Jefferson Parishes, Louisiana (23325.00-.11)• Jefferson Parish - Upper Barataria Terracing Project, Jefferson Parish, Louisiana (25108)• State of Louisiana - Coastal Protection and Restoration Authority (CPRA), Grande Cheniere Ridge Marsh Creation Area, Plaquemines Parish, Louisiana (24364)• State of Louisiana - Coastal Protection and Restoration Authority (CPRA), Grand Bayou Ridge and Marsh Restoration, Plaquemines Parish, Louisiana (24365)	

PROJECT NO. 01	
Project Name, Location, and Owner's Contact Information:	Nature of Firm's Responsibility:
<p>State of Louisiana Coastal Protection and Restoration Authority (CPRA) Bayou DuLarge Ridge, Marsh, and Hydrologic Restoration Project Terrebonne Parish, Louisiana Eustis Engineering Project Nos. 23970.00 - .01</p> <p>Contact Information: USDA – NRCS Through Sigma Consulting Group, Inc. 10305 Airline Highway Baton Rouge, Louisiana 70816 Robert Lear, P.E. @ 225-298-0800 rlear@sigmacg.com</p>	<p>This restoration project in Terrebonne Parish is located on the lower end of Bayou DuLarge between Lake Merchant and Caillou Lake. The project will use borrow material from Lake Merchant to create and nourish marsh on the southern side of Bayou DuLarge, restore the ridge along the southern bank line of Bayou DuLarge, and reestablish historic hydrologic and salinity conditions by installing a structure that reduces the cross-section of Grand Pass and the intrusion of Gulf marine waters into the project area.</p> <p>Eustis Engineering's role in this project included obtaining 45 undisturbed soil borings and cone penetration tests (CPTs) using airboat-mounted equipment and truck-mounted equipment positioned on a jack-up barge. The borings and CPTs extended to depths of 40 to 50 feet below the mudline for the marsh and ridge locations and 120 to 150 feet below the mudline for the Grand Pass structure. The airboat was used whenever possible to minimize detrimental impacts to the marsh environment.</p> <p>Samples obtained from the soil borings were subjected to soil mechanics laboratory tests in accordance with ASTM standards. Testing consisted primarily of classification tests. Beyond these tests, bulk samples of soil dredged from the borrow source were used to conduct settling column tests and self-weight consolidation tests.</p> <p>Eustis Engineering published a geotechnical data report (GDR) on 17 March 2020. Based on the GDR, Eustis Engineering performed engineering design and analyses, published two geotechnical engineering reports, and contributed to the 30% and final designs considering the following project features.</p> <p>Grand Pass Closure: Eustis Engineering performed slope stability and settlement analyses to evaluate rock embankment closure concepts and evaluate alternatives using sheetpiles and driven piles for the closure.</p> <p>Earthen Containment Dikes: Eustis Engineering's team performed stability analyses for three marsh fill elevations to evaluate the geometry required for a stable dike configuration. Analyses included estimates of dike fill consolidation during and after construction, recommendations for setup time required for the newly placed material before dredged fill slurry was placed, sequencing recommendations, and bearing capacity recommendations.</p> <p>Marsh Creation Fill Area Design: Settlement analyses were performed for five marsh fill elevations projecting settlement over the 25-year project life. Eustis Engineering's analyses considered settlement during and after construction for scenarios of single-stage, two-stage, and three-stage dredging.</p>

PROJECT NO. 01		
Project Name, Location, and Owner's Contact Information:	Nature of Firm's Responsibility:	
	Earthen Ridge Design: Eustis Engineering performed slope stability and settlement analyses for the ridge configuration. Engineering analyses included consolidation estimates during construction. Analyses also included two configurations for a gap closure along the ridge alignments.	
Completion Date (Actual or Estimated)	Estimated Cost:	
	Entire Project:	Work for Which Firm Was Responsible:
06/2023 (A)	Unknown	\$760,000

PROJECT NO. 02		
Project Name, Location, and Owner's Contact Information:	Nature of Firm's Responsibility:	
<p>Grand Isle Independent Levee District Preliminary Study Fifi Island Rock and Restoration Project Jefferson Parish, Louisiana CPRA Project No. TE-0171 Eustis Engineering Project No. 25128</p> <p>Contact Information: Grand Isle Independent Levee District Through GIS Engineering, L.L.C. Suite 600 935 Gravier Street New Orleans, Louisiana 70112 Kyle Galloway, P.E. @ 504-265-3504 kgalloway@gisy.com</p>	<p>In a preliminary effort, Eustis Engineering provided geotechnical services for the Fifi Island Rock and Restoration Project. The objective of this project is to create, maintain, and nourish existing, deteriorating wetlands by placing hydraulically dredged material from an undetermined borrow source. Specifically, 281 acres of confined marsh will be placed in designated marsh creation areas (MCAs) formed by constructing earthen containment dikes (ECDs), rock dikes (RDs), and breakwaters around Fifi Island located northwest of Grand Isle.</p> <p>Eustis Engineering's geotechnical exploration included the performance of eight cone penetration tests (CPTs) to evaluate subsurface conditions and stratification. The CPTs were performed with an airboat-mounted rig using an electronic piezocone penetrometer with a 5-ton capacity.</p> <p>Utilizing the results of the geotechnical exploration, we performed engineering evaluations in general accordance with our proposal, furnished plans, and additional information from GIS.</p> <p>Our engineering analyses of the marsh creation cells included preliminary settlement estimates projecting settlement over the 20-year project life considering the effect of settlement of the subsurface soils. The settlement over time was estimated for 20 years after construction.</p> <p>Our scope for the ECDs, RDs, and breakwaters included slope stability analyses with and without marsh fill (as applicable) to evaluate the geometry required for stable dike/breakwater configuration, development of settlement estimates, and general construction recommendations.</p> <p>Design recommendations for the proposed project features were provided based on our findings from the CPT soundings and available historical data in the Grand Isle vicinity. Construction recommendations were also provided.</p> <p>Eustis Engineering plans to provide a new proposal comprising additional geotechnical field exploration and subsequent analyses to support final design of the project.</p>	
Completion Date (Actual or Estimated)	Estimated Cost:	
	Entire Project:	Work for Which Firm Was Responsible:
05/2024 (A)	Unknown	\$85,000 (to date)

PROJECT NO. 03	
Project Name, Location, and Owner's Contact Information:	Nature of Firm's Responsibility:
<p> State of Louisiana Coastal Protection and Restoration Authority (CPRA) Mid-Barataria Sediment Diversion Project Mississippi River Mile 60.7 AHP Vicinity of Ironton and Lafitte (Plaquemines and Jefferson Parishes), Louisiana CPRA Project No. BA-53 CPRA Contract No. 4400013603 Eustis Engineering Project No. 23325.00-.11 </p> <p> Contact Information: State of Louisiana – CPRA Through AECOM 1515 Poydras Street, Suite 2700 New Orleans, Louisiana 70112 Mark Gonski @ 504-799-1332 Mark.gonski@aecom.com </p>	<p> The Mid-Barataria Sediment Diversion (MBSD) project is being designed to strategically reintroduce sediment and nutrients from the Mississippi River into the Barataria Basin. MBSD is an estimated \$1.3 billion project and the Coastal Protection and Restoration Authority's (CPRA) signature project of the 2017 and 2023 Coastal Master Plans. It is a Construction-Manager-At-Risk (CMAR) project delivery method where the engineering and design (E&D) team is co-located with the CMAR and CPRA throughout the E&D process. Eustis Engineering L.L.C. is the lead geotechnical engineer for the E&D team. The MBSD project will sustainably create approximately 15,000 acres of land in the Barataria Basin over the long term. The CPRA proposes to construct the diversion intake and control structure through the Mississippi River levee on the western side of the Mississippi River at approximate River Mile 60.7 AHP in Plaquemines Parish, Louisiana. The diversion outfall will be constructed through the future New Orleans to Venice (NOV) levee into the Barataria Basin, allowing sediment-laden water from the Mississippi River to flow into the Barataria Basin. Key project features include a river inlet and diversion control structure, a conveyance channel, an outfall transition feature, site forced drainage including siphon and sluice gate structures, LA Highway 23 bridge and approaches, and the New Orleans and Gulf Coast Railroad bridge and approaches. </p> <p> The 15% Basis of Design phase was completed in October 2018. The 30% Design phase was completed in November 2019 which included issuing a Design Documentation Report and a Geotechnical Engineering Report. After the 30% submittal, the CPRA initiated a Value Engineering phase that began in January 2020. The 60% and 90% designs were submitted in July 2021 and July 2022, respectively. The 100% design and Section 408 application was submitted in May 2023. Eustis Engineering's activities throughout these phases have included: serving as the permitting agent for the CPRA and obtaining a Coastal Use Permit and Section 10/404 Permits from the U.S. Army Corps of Engineers (USACE) for performing soil borings and cone penetration tests (CPTs); developing a detailed project design criteria document; participating in a semi-quantitative risk assessments (SQRA) and workshop with the design team, CMAR, the CPRA, and the USACE; writing a SQRA Risk Report; helping develop and update the project risk register; obtaining CPTs and borings; soil laboratory testing including advanced shear strength testing (direct simple shear); and engineering analyses/design of the various project features. Eustis Engineering obtained 162 borings (3-in. and 5-in. diameter) and 98 CPTs for the three exploration phases (15%, 30% and 60%) in the river, land, and Barataria Bay environments. The field program was performed safely over several years and with hundreds of thousands of man-hours, one of the most impressive field exploration programs completed in the firm's 78-year history. </p>

PROJECT NO. 03		
Project Name, Location, and Owner's Contact Information:	Nature of Firm's Responsibility:	
	<p>Eustis Engineering took a lead role in developing geotechnical testing, instrumentation plans, and specifications for two, full-scale levee wick drain test sections. These test sections were necessary to improve the understanding of levee settlement, gain-in-foundation shear strength, and levee staged-construction schedule. These test levees and the associated instrumentation and monitoring began in 2019 and were completed in 2021. With 100% design complete, the construction phase was originally scheduled to begin in fall 2023 but was delayed. Some construction operations are anticipated to begin later this year. Eustis Engineering will remain involved performing engineering during construction tasks that include data gathering and evaluation for the extensive pile load test program and geotechnical instrumentation program for the conveyance channel levees.</p>	
Completion Date (Actual or Estimated)	Estimated Cost:	
	Entire Project:	Work for Which Firm Was Responsible:
Project is On Hold	Unknown	\$5,526,630

PROJECT NO. 04		
Project Name, Location, and Owner's Contact Information:	Nature of Firm's Responsibility:	
<p>Jefferson Parish Upper Barataria Terracing Project Jefferson Parish, Louisiana FNI Project JPL22495 Eustis Engineering Project No. 25108</p> <p>Contact Information: Jefferson Parish Government Through Freese and Nichols, Inc. 900 Camp Street New Orleans, Louisiana 70130 Nina Reins @ 225-245-7202</p>	<p>The Upper Barataria Terracing project comprises construction of earthen terraces, using materials from adjacent borrow canals in open water to encourage the creation of emergent marsh in Barataria Bay near Bayou Dupre Cut and Bayou Dupont.</p> <p>Eustis Engineering L.L.C.'s scope of service for the geotechnical exploration comprised obtaining a Coastal Use Permit (CUP), executing a geotechnical exploration, and performing subsequent laboratory testing. Borings were performed at nine locations to depths of 50 feet below the mudline to evaluate subsurface conditions and stratification and to obtain samples of the various substrata. The soil test borings were drilled using a drill rig mounted onto a marsh buggy. Soil mechanics laboratory tests, performed on samples obtained from the soil borings, were used to evaluate the physical properties of the subsoils. The results from the soil borings and laboratory tests were transmitted through a geotechnical data report and later used to establish the recommendations we prepared in our geotechnical engineering report.</p> <p>Engineering analyses performed by Eustis Engineering for the proposed terraces included slope stability evaluation of the earthen terraces considering adjacent borrow canals; settlement analyses for immediate and long-term settlement due to the compression of subsurface soil consolidation; and general construction recommendations. We transmitted the findings and recommendations into a final geotechnical engineering report. Eustis Engineering provided additional consulting efforts with Freese and Nichols to establish constructability recommendations for use in the project plans and specifications. Our constructability recommendations are based on recent coastal engineering projects specific to earthen terraces and borrow canals.</p>	
Completion Date (Actual or Estimated)	Estimated Cost:	
	Entire Project:	Work for Which Firm Was Responsible:
04/2024 (A)	Unknown	\$131,000 (to date)

PROJECT NO. 05	
Project Name, Location, and Owner's Contact Information:	Nature of Firm's Responsibility:
<p>State of Louisiana - Coastal Protection and Restoration Authority (CPRA) Grande Cheniere Ridge Marsh Creation Area Plaquemines Parish, Louisiana CPRA Contract No. 4400015385 CPRA Project No. BA-0240 CPRA Task No. 2 Eustis Engineering Project No. 24364</p> <p>Contact Information: State of Louisiana – CPRA The Water Campus 150 Terrace Avenue Baton Rouge, Louisiana 70802 Tye Fitzgerald, P.E. @ 225-342-7308 Tye.fitzgerald@la.gov</p>	<p>The purpose of the Grande Cheniere Ridge Marsh Creation Project (BA-0240) is to create 600 acres of marsh and 10,820 linear feet of coastal ridge habitat by hydraulically dredging material from the Mississippi River borrow source. Significant marsh loss has occurred in this area due to construction of numerous oil and gas canals, subsidence, and sediment deprivation. The hope is marsh creation areas will be formed with the construction of earthen containment dikes around the boundaries of each proposed area using material excavated from adjacent borrow canals.</p> <p>Five undisturbed soil borings and twelve cone penetration tests were performed within the marsh creation area (MCA). The soil borings extended to depths of 20 and 40 feet below the mudline. The CPTs were performed to depths of 36 to 40 feet below the mudline. Before our field operations, Eustis Engineering subcontracted T. Baker Smith, LLC, to perform a magnetometer survey at each boring and CPT location to ensure no pipelines or obstructions existed at the exploration points. Access for the MCA was via marsh buggy and air boat. Eustis Engineering also completed marine borings from a jack-up-barge within the Mississippi River (under a separate task order) to evaluate the proposed borrow source to be hydraulically dredged and pumped to the MCA. Once the field operations were completed, soil mechanics laboratory tests were performed on select, representative samples from the MCA. Testing included natural water content, unit weight, one-point unconsolidated undrained triaxial compression shear, Atterberg limits determinations, organic content tests, specific gravity, grain size analysis, percent passing the U.S. Standard No. 200 sieve, and consolidation tests. These results were transmitted as a Geotechnical Data Report.</p> <p>Our engineering scope of work included evaluation of the marsh creation fill cells, earthen containment dikes design, ridge design, estimates of settlement, and slope stability analyses. Engineering analyses were performed using soil boring and laboratory test data from the current and previous explorations [October 2007 (BA-0042) and December 2015 (BA-0173)]. We also provided recommendations regarding site preparation and general construction recommendations relevant to our geotechnical design assumptions.</p> <p>More specifically, our engineering analyses of the MCA have included settlement estimates and settlement curves for furnished marsh fill elevations which project settlement over a 20-year project life. Engineering analyses for the earthen containment dikes and the earthen ridge included slope stability analysis with and without marsh fill to evaluate the geometry required for stable configurations (construction elevation, acceptable side slopes, and acceptable crown width), geotextile requirements, estimates of dike fill consolidation during construction, construction sequencing recommendations, and</p>

PROJECT NO. 05		
Project Name, Location, and Owner's Contact Information:	Nature of Firm's Responsibility:	
	bearing capacity assessments. These recommendations were issued in a draft Geotechnical Engineering Report (GER). Comments from CPRA were incorporated in the final GER.	
Completion Date (Actual or Estimated)	Estimated Cost:	
	Entire Project:	Work for Which Firm Was Responsible:
06/2021 (A)	Unknown	\$110,650

PROJECT NO. 06	
Project Name, Location, and Owner's Contact Information:	Nature of Firm's Responsibility:
<p>State of Louisiana – Coastal Protection and Restoration Authority (CPRA) Grande Bayou Ridge and Marsh Restoration Plaquemines Parish, Louisiana CPRA Contract No. 4400015385 CPRA Project No. BA-0217 Eustis Engineering Project No. 24365</p> <p>Contact Information: State of Louisiana – CPRA 150 Terrace Avenue Baton Rouge, Louisiana 70802 Tye Fitzgerald, P.E. at 225-342-7308 tye.fitzgerald@la.gov</p>	<p>The Grand Bayou Ridge and Marsh Restoration Project (BA-0217) will create approximately 344 acres of marsh; 25,000 linear feet of terraces; and 10,657 linear feet of coastal ridge habitat by hydraulically dredging material from a Mississippi River borrow source and utilizing in-situ materials from Grand Bayou. The marsh creation areas will be formed by constructing earthen containment dikes around the boundaries of each proposed area using material excavated from adjacent borrow canals. The project will adhere to CPRA's Geotechnical Standards, Marsh Creation and Coastal Restoration Projects (Version 1.0) engineering and design standards.</p> <p>Thirty-one locations were identified for drilling and testing in the project area. Six of the locations were designated as co-located soil borings and cone penetration tests (CPTs). These locations also correspond to those identified in a Coastal Use Permit obtained by CPRA. The borings and CPTs varied between 20 and 40 feet in depths. The borings were made using drilling equipment mounted onto a marsh buggy and the CPTs were made using an airboat. Mobilization for this task order was combined with the nearby BA-0240 project to provide economy. As part of our field investigation, Eustis Engineering's personnel coordinated with landowners, the U.S. Army Corps of Engineers, and appropriate levee boards. Eustis Engineering teamed with T. Baker Smith, LLC, to complete a hazard survey and provide locations and elevations for each boring/CPT. In the laboratory, samples were classified using the Unified Soil Classification System. Testing included moisture content, unit weight, one-point unconsolidated undrained triaxial compression shear, Atterberg limits determinations, organic content, sieve and hydrometer analyses, and consolidation tests. Field and laboratory test results were summarized in a Geotechnical Data Report (GDR). Note, samples of the Mississippi River borrow source were obtained and tested under a separate task order to provide soil characteristics for design.</p> <p>Our staff performed engineering analyses for the earthen containment dikes, earthen ridge feature, earthen terrace design, and marsh creation fill area. These analyses include stability analyses to evaluate the geometry required for stable configurations of the dike, ridge, and terrace designs; estimates of fill consolidation settlement during construction of these same features; settlement curves (including immediate and consolidation settlement) of the subsurface soils; and construction sequencing recommendations. Marsh creation fill area designs require engineering analyses associated with evaluation of both primary and secondary consolidation settlement of the subsurface soils due to placement of sand as well as the projected settlement during construction and up to 20 years after construction. All data were presented in accordance with the Louisiana Sand Resource Database's Standard Operating Procedures for Geo-Scientific</p>

PROJECT NO. 06		
Project Name, Location, and Owner's Contact Information:	Nature of Firm's Responsibility:	
	Data Management. Draft and final Geotechnical Engineering Reports (GER) were published to present the findings of the project.	
Completion Date (Actual or Estimated)	Estimated Cost:	
	Entire Project:	Work for Which Firm Was Responsible:
07/2021 (A)	Unknown	\$165,350

PROJECT NO. 07	
Project Name, Location, and Owner's Contact Information:	Nature of Firm's Responsibility:
<p style="text-align: center;"> State of Louisiana - Coastal Protection and Restoration Authority (CPRA) Maurepas Diversion and West Shore of Lake Pontchartrain St. John the Baptist Parish, Louisiana Eustis Engineering Project Nos. 24384.00-.02 </p> <p style="text-align: center;"> Contact Information: State of Louisiana – CPRA Through AECOM Technical Services, Inc. 59100 Industrial Boulevard Building 3502 Plaquemine, Louisiana 70764 Clay Loyless, P.E. @ 504-799-1324 </p>	<p>Eustis Engineering L.L.C.'s scope of service for the 15% design included review of existing geotechnical data, development of a geotechnical data collection plan, collection of new geotechnical data, laboratory analyses, development of geotechnical soil design reaches, and preparation of geotechnical design recommendations for the future flood protection and freshwater diversion. Our services focused on the freshwater diversion and the flood protection features associated with the U.S. Army Corps of Engineers' (USACE's) West Shore of Lake Pontchartrain (WSLP) alignment. The WSLP geotechnical exploration and analyses need to meet requirements for a 1% storm. Thus, all designs will be performed in accordance with the interim <u>Hurricane and Storm Damage Risk Reduction System Design Guidelines</u> (HSDRRSDG) as modified by WSLP project specific post-summit memoranda developed by the USACE, New Orleans District. The geotechnical exploration work to date was completed to define soil and foundation conditions along the future WSLP levee alignment as well as information for the diversion beyond the area of the WSLP.</p> <p>AECOM Technical Services, Inc. furnished available historical data, analyses, and reports to Eustis Engineering for review. In addition to the furnished data, Eustis Engineering performed additional field exploration to provide current soil conditions at the site to meet HSDRRSDG for the future levee and structural foundations. The field exploration comprised twelve, 5-in. diameter soil borings and eight cone penetration tests (CPTs). The 4-ft undisturbed sample tubes were extruded in the laboratory, divided, and tested in general accordance with standards followed by the USACE for the other portions of the WSLP alignments. Our soil mechanics laboratory tests comprised unconfined compression shear, one and three-point unconsolidated undrained triaxial compression shear, direct simple shear, consolidation, Atterberg limits determinations, organic content determinations, and sieve and hydrometer analyses.</p> <p>Using these data, the Maurepas Diversion was separated into three soil design reaches by our engineering staff. Subsurface conditions and design parameters were included in the initial draft report. Ongoing efforts will comprise deep-seated global stability analyses; unbalanced force determinations for T-walls; piping cutoff designs; uplift analyses; allowable pile load capacity estimates per the HSDRRSDG for T-wall structures; allowable pile load capacity estimates per the State of Louisiana, Department of Transportation and Development (LaDOTD) for Airline Highway; development of lateral load soil design parameters for foundation piles (e.g., subgrade moduli, LPILE® parameters, etc.) subject to unbalanced loading; preparation of Geotechnical Design Reports and supporting information for the Design Documentation Report; levee stability analyses with estimates of strength gain during and after construction; reinforcing geotextile strength and width based on the 2070 design elevations; settlement curves to year 2070;</p>

PROJECT NO. 07		
Project Name, Location, and Owner's Contact Information:	Nature of Firm's Responsibility:	
	<p>estimates of settlement induced bending moments at multiple future tie-in locations along with recommendations for mitigating such effects; ground improvement programs by use of wick drain fields and preload/surcharge embankments at multiple sites; conceptual temporary retaining structure designs at each future structure location; utility relocation design recommendations pertaining to geotechnical requirements; Maurepas Diversion channel stability designs; LaDOTD standard pavement designs; and development and coordination of submittals for 35%, 95%, and 100% design stages including comment review and resolution. The Geotechnical Engineering Report to support the 35% level design was issued in December 2022. Some advancement of a 65% design alternative was made in 2023.</p> <p>We have recently completed a Geotechnical Data Report for a borrow area study. We conducted a supplemental geotechnical exploration that included the performance of ten soil borings to assess the diversion site as a potential borrow source for the proposed levees.</p>	
Completion Date (Actual or Estimated)	Estimated Cost:	
	Entire Project:	Work for Which Firm Was Responsible:
Ongoing	Unknown	\$581,000 (to date)

PROJECT NO. 08		
Project Name, Location, and Owner's Contact Information:	Nature of Firm's Responsibility:	
<p>State of Louisiana - Coastal Protection and Restoration Authority (CPRA) Marsh Creation Projects in the Breton Sound (BS-0037 and BS-0041) St. Bernard Parish, Louisiana Eustis Engineering Project Nos. 24431.00, .01, and 24762</p> <p>Contact Information: State of Louisiana – Coastal Protection and Restoration Authority (CPRA) 150 Terrace Avenue Baton Rouge, Louisiana 70802 Jessica Diez @ 225-342-1477</p>	<p>Eustis Engineering L.L.C. has provided geotechnical services for adjacent projects in the Breton Sound as part of the Coastal Protection and Restoration Authority (CPRA) Coastal Master Plan. These projects are BS-0037 and BS-0041 and involve the creation of more than 1,200 acres of confined marsh areas in the Breton Sound.</p> <p>Project No. BS-0037 will occur at the East Delacroix Marsh. The scope calls for 406 acres of confined marsh created by hydraulically dredging material from a borrow source in nearby Lake Lery. The marsh creation areas will be formed by constructing earthen containment dikes (ECDs) around the open perimeter. The existing tidal levee will be utilized to provide approximately 12,950 feet of terraces. Eustis Engineering drilled soil borings to depths of 15 feet in the Lake Lery borrow area, one boring and six cone penetration tests (CPTs) to 40 feet at the Delacroix Tidal Levee, and six soil borings and twelve CPTs to depths of 30 feet in the marsh creation area and terrace field. The borrow borings were made using a drill rig mounted onto pontoons. The marsh creation and terrace field borings and CPTs were made using airboat-mounted equipment.</p> <p>Project No. BS-0041 is planned in the North Delacroix area. The goal is to create and nourish approximately 389 acres of marsh while consulting approximately 8,550 linear feet of earthen terraces. The 389 acres of marsh will comprise 322 acres of marsh creation and 67 acres of marsh nourishment by hydraulically dredging material from a borrow source in nearby Lake Amedee. Two creation cells allowing channel drainage, tidal levees, and earthen containment dikes (ECDs) will be created, and the cells will be dewatered to attain necessary sediment. The ECDs will be formed by constructing temporary earthen terraces around the open perimeter.</p> <p>For both of these projects, Eustis Engineering performed engineering analyses and reporting services once our review of the existing and obtained geotechnical data was completed. These design analyses include ECD design, marsh creation area design, and canal closure features. Final geotechnical engineering reports have been published for both projects.</p>	
Completion Date (Actual or Estimated)	Estimated Cost:	
	Entire Project:	Work for Which Firm Was Responsible:
06/2023 (A)	Unknown	\$398,270

PROJECT NO. 09	
Project Name, Location, and Owner's Contact Information:	Nature of Firm's Responsibility:
<p>State of Louisiana Grand Isle State Park Phase I and II Improvements Jefferson Parish, Louisiana Eustis Engineering Project Nos. 24093.00-.01 & 25239</p> <p>Contact Information: State of Louisiana – CPRA Through GIS Engineering, L.L.C. Post Office Box 820 Galliano, Louisiana 70354 Laura L. Barnes, P.E. @ 985-219-1048</p>	<p>This project consists of repairs and upgrades to existing roads and parking lots damaged by repeated flooding. For the existing three-mile park roadway system, the repairs would include milling, overlaying, and full depth patching of pavement areas where sections had failed. In the three parking areas, repairs would include pulverizing the existing asphalt parking areas, and adding base course and an asphalt overlay to raise the parking area grades to above normal tide elevations.</p> <p>Eustis Engineering L.L.C.'s field investigation for Phase I included the performance of seven direct-push type borings and two pavement cores using one of our Geoprobe® rigs to identify the subsurface soils, stratifications, and pavement conditions at the site, and to obtain samples of the various strata encountered. The borings were performed to depths varying between 8.5 and 9.0 feet below the asphalt surface, and the pavement cores were performed to depths of 2.5 and 3.3 feet. Laboratory testing services included the performance of visual classification and natural water content determinations to aid in the classification of the soil samples.</p> <p>Engineering analyses were performed and recommendations developed for groundwater management including temporary and permanent drainage; site preparation including demolition and removal of existing slabs or pavements; subgrade preparation; structural fill and its compaction; and flexible pavement components and thicknesses meeting Section 502 of the <u>Louisiana Standard Specifications for Roads and Bridges</u>.</p> <p>Phase II of the project focused on the proposed reconstruction of a rock jetty and deep foundation design for the planned extension of a fishing pier at the Grand Isle Park. Eustis Engineering's field exploration for this phase comprised two marine-based soil borings to obtain samples of the various strata encountered at the rock jetty and fishing pier. The borings extended to depths of 50 and 100 feet below the mudline.</p> <p>Soil mechanics laboratory tests included natural water content, unit weight, unconfined compression shear, unconsolidated undrained triaxial compression shear, Atterberg limits determinations, and grain size distributions.</p> <p>Proposed fishing pier upgrades comprise an extension of the existing pier into the Gulf of Mexico by approximately 400 feet. Eustis Engineering developed estimates of allowable axial and lateral pile load capacity to support the new pier foundations. We also provided estimates of allowable soil bearing capacity, deep-seated stability assessments, and general construction recommendations for the reconstruction of a rock jetty at the site.</p> <p>In November 2023, further improvements to Grand Isle State Park's fishing pier were proposed, featuring a new structure of approximately 1,300 feet in the Gulf of Mexico. Eustis Engineering was asked to perform geotechnical services for this effort. We are utilizing data from Boring B-1 of the geotechnical exploration conducted during Phase II at the fishing pier under</p>

PROJECT NO. 09		
Project Name, Location, and Owner's Contact Information:	Nature of Firm's Responsibility:	
	Eustis Engineering Project No. 24093.01 to supplement our engineering analyses. We have also recently completed drilling one undisturbed soil boring to a depth of 120 feet using a track-mounted drill rig to supplement the available data. Our team applied for and acquired a Coastal Use Permit through the Louisiana Department of Energy and Natural Resources, Office of Coastal Management, to allow for these exploration operations. The existing data, new soil boring, and laboratory tests are being utilized to prepare an updated design report of our findings and recommendations for the revised project scope. With the supplemental field exploration completed, the design analyses are underway and the report will be published in July 2024.	
Completion Date (Actual or Estimated)	Estimated Cost:	
	Entire Project:	Work for Which Firm Was Responsible:
07/2024 (E)	Unknown	\$44,000 (to date)

PROJECT NO. 10	
Project Name, Location, and Owner's Contact Information:	Nature of Firm's Responsibility:
<p>State of Louisiana Department of Wildlife and Fisheries Marsh Island Refuge Water Control Structure Replacements Belly Dam, Joe Aucoin, and Northeast Bird Island Iberia Parish, Louisiana Ducks Unlimited Project No. DU-LA-198-1 Eustis Engineering Project Nos. 24170.00, .01</p> <p>Contact Information: State of Louisiana Through Ducks Unlimited, Inc. 915 Front Street Richmond, Texas 77469 John Hetherwick @ 832-595-0063 jhetherwick@ducks.org</p>	<p>The project consists of the construction of three new flood control structures within the existing Marsh Island Refuge in Iberia Parish, Louisiana. The exact site was positioned on the northern side of Marsh Island, just south of the New Iberia, Louisiana coast. The Joe Aucoin West Weir and Belly Dam Weir flood control structures will replace existing structures with reported scour areas, and the Northeast (NE) Unit Structure on the Northeast Bird Island Unit will comprise new construction. Eustis Engineering L.L.C. was contracted to perform a geotechnical exploration and subsequent analyses, based on specific hydraulic design criteria, for the proposed design features.</p> <p>Three borings were drilled to depths of 50 feet below the existing mudline in open water channels and bayous. These borings were completed with the use of a drill rig mounted onto a pontoon boat owned and operated by Specialized Environmental Resources, Inc. as subcontracted through Eustis Engineering. We provided the soil technician to log the boreholes and retain the samples. Once the field/marine operations were completed, we selected samples to be subjected to soil mechanics laboratory tests in our in-house facilities. Testing performed included natural water content, total unit weight, and unconsolidated undrained triaxial compression shear. Additionally, Atterberg limits determinations were performed on selected samples.</p> <p>Engineering analyses performed and evaluations made, based on the soil borings and laboratory tests, consisted of:</p> <ul style="list-style-type: none"> • site preparation recommendations regarding the demolition of the existing structures; • sheetpile wall (PVC, vinyl, or steel) foundation recommendations for the Joe Aucoin West Weir, NE Unit Structure, and Belly Dam Weir; • results of local and global slope stability analyses and respective factors of safety; • flood control structure analyses and recommendations; • deep foundation recommendations including allowable load capacity for treated ASTM D25 timber piles and pile group capacity and spacing considerations; • settlement estimates due to structural loads of deep foundations; and • deep foundation installation and testing recommendations for driven piles.

PROJECT NO. 10		
Project Name, Location, and Owner's Contact Information:	Nature of Firm's Responsibility:	
	After issuing our report, Eustis Engineering was requested to perform supplemental engineering analyses for the project. Specifically, additional local stability analyses were requested to be performed for each of the proposed water control structures. The purpose of these additional analyses was to verify the amount of sheetpile length saved if an anchored sheetpile wall was designed at each of the project locations in lieu of a cantilevered sheetpile wall.	
Completion Date (Actual or Estimated)	Estimated Cost:	
	Entire Project:	Work for Which Firm Was Responsible:
12/2021 (A)	Unknown	\$38,000

TEC Professional Services Questionnaire

M. List all prior and/or on-going litigation between Firm and Jefferson Parish. Please attach additional pages if necessary.

Parties:		Status/Result of Case:
Plaintiff:	Defendant:	
1. None at this time.		
2.		
3.		
4.		

N. Use this space to provide any additional information or description of resources supporting Firm's qualifications for the proposed project.

EVALUATION CRITERIA

Professional Training and Experience. Our staff includes eight project managers and senior project managers with a supporting staff of project engineers, engineering interns, engineering technicians, and geologists. This staff has worked on field investigations for Jefferson Parish projects as well as the geotechnical design of marsh and ridge restoration, shoreline stabilization, and living shorelines across the Gulf Coast during their tenure with Eustis Engineering. Eustis Engineering currently has 17 professional engineers registered in the State of Louisiana.

Capacity for Timely Completion. Our geotechnical engineering staff has extensive experience in a wide range of projects to meet the needs of the team to support projects for Jefferson Parish. Our staff size allows diversification and appointment of teams to meet our commitments on projects in a timely and professional manner. We believe Eustis Engineering has demonstrated that we have sufficient capability and capacity to provide geotechnical services under this SOQ.

Location of the Principal Office Where Work will be Performed. Work under this advertisement will be performed out of Eustis Engineering's headquarters in Metairie, Louisiana. This office is conveniently located just off the I-10 Service Road and Causeway Boulevard in the heart of Jefferson Parish.

Adversarial Legal Proceedings with the Parish. Currently, Jefferson Parish and Eustis Engineering have no ongoing adversarial legal proceeding between our entities.

Prior Successful Completion of Projects Requiring Soils Investigation Services for Which Firm has Provided Verifiable References. Eustis Engineering has provided geotechnical services for more than 4,000 projects in Jefferson Parish during our nearly 80 years in business. Some of these projects include:

- Mid-Barataria Sediment Diversion Project, Mississippi River Mile 60.7 AHP, Plaquemines and Jefferson Parishes, Louisiana;
- Lafitte Area Independent Levee District, Lafitte Tidal Protection, Rosethorn Basin – Phase I Frontal Levee Along Bayou Barataria;
- Lafitte Area Independent Levee District, Fisher School Basin – Tidal Protection Along Bayou Barataria;
- National Park Service, Jean Lafitte National Historical Park and Preserve, Barataria Preserve Unit;

- Coalition to Restore Coastal Louisiana and Pontchartrain Levee District – Salinity Barrier, Interstate 10 at Interstate 310, Jefferson Parish – St. Charles Parish line;
- Veterans Boulevard Drainage Pump Stations;
- Hoey’s Canal Drainage Improvements;
- 17th Street Canal Drainage Improvements, Airline Highway to Hoey’s Canal;
- Instrumentation Installation and Monitoring, Lapalco Boulevard Overpass at Bayou Segnette; and
- Grand Isle State Park, Phase I and II Improvements.

References:

Kevin DeZarn, P.E. GIS Engineering, L.L.C. 197 Elysian Drive Houma, Louisiana PN 985-219-1048	Randy M. Perrin, E.I. U.S. Army Corps of Engineers Post Office Box 60267 New Orleans, Louisiana 70160 PN 504-862-1121
Anthony Goodgion, P.E. Linfield, Hunter & Junius, Inc. 3608 18 th Street Metairie, Louisiana 70002 PN 504-833-5300	Mark Gonski, P.E. AECOM 1515 Poydras Street Suite 2700 New Orleans, Louisiana 70112 PN 504-799-1332
Joe Fifer, P.E. Ducks Unlimited, Inc. 806 Bayou Black Houma, Louisiana 70360 PN 985-853-3005	Bruce Adams, P.E. Volkert Inc. 3801 Canal Street Suite 210 New Orleans, Louisiana 701189 PN 504-865-0456

When Eustis Engineering L.L.C. opened its first office in Vicksburg, Mississippi, in 1946, it housed its entire operation in less than 500 square feet of space. ***Seventy-eight years later***, our personnel and equipment occupy 40,000+ square feet of space in five locations.

Eustis Engineering is the third oldest, continually operating geotechnical firm in the United States. From a single two-man office to approximately 115 individuals in five offices, the firm has grown to house accounting, administrative, quality control, safety, drilling, engineering, laboratory, and construction materials testing departments. These departments work together to provide our clients with the quality work desired in a cost efficient and timely manner.

Eustis Engineering is headquartered in Metairie, Louisiana, in the heart of Jefferson Parish. We also operate branch offices in Baton Rouge and Lafayette, Louisiana, Gulfport, Mississippi, and Houston, Texas. Our offices and staff collaborate seamlessly using Microsoft Teams and other virtual platforms.

Eustis Engineering’s services encompass many disciplines including the performance of:

- subsurface exploration (drilling of soil borings, cone penetration testing, downhole vane, and Geoprobe®);
- soil mechanics laboratory tests;
- field instrumentation and monitoring;
- non-destructive testing of piles and shafts including dynamic pile testing, crosshole sonic logging, single-hole sonic logging, low strain pile integrity testing, and thermal integrity profiling;
- geotechnical engineering design;
- special inspections; and
- construction quality control and materials testing services.

Eustis Engineering L.L.C. Important Numbers	
Item	Number
Unique Entity Identifier (UEI)	R83MG9NLTMS4
CAGE Code	4MOP2
Firm License - Louisiana	EF.0003558
Firm License - Mississippi	2078
Firm Registration – Texas	13895

Eustis Engineering has worked on over 850 geotechnical and construction materials testing projects for Jefferson Parish Government entities. We have also worked on over 4,000 projects of all types throughout the east and west banks of Jefferson Parish alone, not considering similar projects in the surrounding parishes. This work history gives our engineering staff unparalleled familiarity with the foundation conditions in the Gulf Coast and the challenges that may arise for projects associated with this contract.

ENGINEERING SERVICES

Eustis Engineering has geotechnical engineering capabilities to fulfill the requirements of nearly any project. As evidenced by the included write-ups in this package, our experience with various marsh creation, ridge restoration, and other coastal engineering projects is varied and extensive. We evaluate local and deep-seated global stability of earthen containment dikes, ridges, and terraces; levee embankments and shoreline; and waterway slopes. We provide assessments of seepage and erosion control measures.

We have developed pile capacity and bearing capacity analyses for projects throughout the coastal areas of the United States. Eustis Engineering’s evaluation of piles includes estimates of vertical capacity for groups. We also perform lateral analyses of individual piles and pile groups using LPILE® and GROUP® software. We evaluate floodwalls, including I-walls, L-walls, T-walls and gates.

We perform settlement studies including estimates of settlement and time-rate of settlement with and without wick drains to enhance consolidation. These settlement studies include estimates and recommendations for lift construction affecting a gain-in-strength of foundation soils associated with subsoil consolidation. Preload/surcharge operations are also a component of our settlement evaluations.

In our practice, Eustis Engineering has developed methodologies associated with the estimates of negative skin friction on pile foundations. The methods are the current state of practice. The extension of these methods is an evaluation of settlement induced bending moments. Eustis Engineering is also utilizing a numerical model program, SIGMA/W, in association with the rigorous settlement program Settle3.

Engineering Staffing

Our engineering staff has 16 master's degrees in Civil Engineering, Engineering, Engineering Management, Geology, and Business Administration. Participation in post-Bachelor of Science curricula, as well as continuing education and professional registration that emphasizes engineering management and technical issues, is very important to Eustis Engineering. Our engineers also regularly present at technical conferences. We encourage and fund our staff for these activities and programs.

Employee	Education	Experience	
		Years with Eustis Engineering	Total Years
Professional Engineers (P.E.)			
Benjamin M. Cody	M.S. / Civil Engineering	22	26
Brian A. Deschamp		12	12
	B.A. / Business Administration		
	M.S. / Civil Engineering – Geotechnical		
P. Tennant Duckworth	M.S. / Civil Engineering	3	3
James J. Hance	M.S. / Civil Engineering	20	24
	M.B.A. / Business Administration		
Chad L. Held	M.S. / Civil Engineering	33	33
Matthew K. Morales	B.S. / Civil Engineering	15	15
Tomas K. Morales	B.S. / Civil Engineering	10	10
Travis R. Richards	M.S. / Engineering	17	24
	M.S. / Engineering Management		
	Coastal Engineering Certificate		
Chad D. Roe	M.S. / Civil Engineering	1	11
Gwendolyn P. Sanders	M.S. / Engineering	31	31
Sanjay S. Shahji	M.S. / Civil Engineering	1	18
Shaun R. Simon	M.S. / Civil Engineering	24	24
Alice E. Stark	B.S. / Civil and Environmental Engineering	<1	8
Patrick A. Thurmond	M.S. Engineering Management	9	9
	M.S. / Civil Engineering		
	Coastal Engineering Certificate		
Sean G. Walsh	M.S. / Civil Engineering	11	16
James M. Williams	M.S. / Civil Engineering	6	6
Henry C. Worley	M.S. / Engineering	6	7
	Coastal Engineering Certificate		
Engineering Interns (E.I.)			
Adam K. Abdulbagi	B.S. / Civil Engineering	1	1
Naba Almofraji	B.S. / Civil Engineering	<1	6
Alvaro E. Carvajal	B.S. / Civil Engineering	1	1
Joseph P. DiGiovanni	B.S. / Civil Engineering	1	1

Steven B. Tidwell	B.S. / Geological Engineering	<1	13
Engineering Graduates			
Alexander Soriano Doninelli	B.S. / Civil Engineering	<1	4
Lesley L. Reitmeyer	B.S. / Civil Engineering	15	15
Xia (Bruce) Xialong	PhD / Geotechnical Engineering	<1	10
	M.S. / Geotechnical Engineering		
Geologists			
Matthew J. Blasini, G.I.T.	B.S. / Geology	5	6
Nathan A. Quick, P.G.	M.S. / Geology	2	7
Total Years of Experience		246	322

Reviewing our table, the majority of Eustis Engineering's professional engineers have at least ten years of experience in geotechnical engineering.

Cone Penetration Testing Capabilities

Eustis Engineering owns two dedicated track-mounted cone penetration test (CPT) rigs and operates four other multi-purpose rigs capable of performing CPTs. Operators are either specifically trained engineering technicians or engineers who perform field operations utilizing the CPT equipment. Engineers with specialized knowledge and experience operating the rigs evaluate the sounds and produce the CPT logs. Five of our rigs can be placed on a cargo buggy, shallow draft barge, or airboat to access coastal marsh or open water. We have sounded to depths of 180 feet and have the ability to perform dissipation and seismic testing. Field testing is performed according to ASTM D5778 and common industry practices. Eustis Engineering has been performing CPTs and using CPT technology since the early 2000s.

A CPT can be accomplished rapidly with four or five being performed in the same time frame as a standard geotechnical boring; therefore, CPTs are typically cost-effective in providing enhanced subsurface exploration and better delineation of subsurface conditions at a project site.

Dynamic Pile Testing Capabilities

Eustis Engineering was the first private consulting firm to own and operate dynamic pile testing equipment in the States of Louisiana and Mississippi. The pile types tested include timber piles; small size pipe piles; square, precast concrete piles and large (60 to 72-in. diameter) spun-cast, prestressed concrete piles; open-end and closed-end steel pipe piles; and steel H-piles.

We often upgrade our data collectors and operate four Pile Driving Analyzers® (PDAs): one PAX unit and three PDA-8G units. These units can be battery operated and use wireless gauge transmitters to eliminate the need for a main cable to connect directly to the units. We also stock and use underwater gauges to monitor pile driving in marine environments when the pile head descends below the water surface. To support our four PDA units, Eustis Engineering maintains an extensive inventory of calibrated gauges and accessories. To provide quality assurance and rapid responses to issues in the field, all PDAs have wireless communication, enabling our engineers direct oversight of the dynamic pile testing process in real time.

We also use this PDA equipment to maintain the calibrations of our automatic Standard Penetration Test (SPT) hammers on our drill rigs.

Other Non-Destructive Testing Capabilities

Our engineering staff at Eustis Engineering performs other non-destructive testing services to verify the structural integrity of drilled shafts, augercast piles, and precast concrete piles. Some of these processes include crosshole/single-hole sonic logging (CSL or SSL), low strain pile integrity testing (PIT), and thermal integrity profiling (TIP™). We also perform parallel seismic testing to evaluate existing foundation depths.

INSTRUMENTATION

Eustis Engineering has installed geotechnical instrumentation for decades. Our instrumentation programs have resulted in substantial cost savings to our clients by reducing preload durations, providing refinement of geotechnical design parameters through full-scale testing, and verifying the performance of cutting-edge designs. Our services go beyond the construction phase, as long-term monitoring programs enable owners to maximize utilization of their facilities throughout the design life by verifying if soil behavior is within acceptable limits.

Eustis Engineering provides the following instrumentation services:

- Vibrating wire devices including piezometers, extensometers, settlement gauges, and strain gauges
- Data loggers to enable periodic collection of data for vibrating wire devices
- Data links for remote web access to data loggers in near real time
- Settlement plates
- Conventional slope inclinometers or MEM sensor array inclinometers
- Monitoring services of all instrumentation devices with geotechnical interpretation

Instrumentation is a natural complement to our design services, providing data to verify or modify recommendations based on the observational method. Ongoing monitoring enables us to provide continuing services from project inception to the end of a project's design life.

DRILLING/FIELD EXPLORATION

Eustis Engineering possesses licenses and credentials to perform geotechnical drilling in Louisiana and Mississippi (no license is needed in Texas). With our licenses and credentials, Eustis Engineering drills soil borings and performs sampling operations for our clients' projects in all types of environments including land, marsh, swamp, and marine. Our personnel have the capability and experience to provide these services from trucks, barges, pontoons, and swamp or marsh buggies. We also have portable units that can be used inside structures planned for retrofit/renovations.

Field Exploration Personnel

We can provide up to nine drillers and drill rigs capable of obtaining standard 3-in. diameter Shelby tube samples and 5-in. diameter fixed piston samples, sounding CPT, advancing Geoprobe samplers, and installing

geotechnical instrumentation on land, in water, and in marsh environments as indicated in the following table.

Capabilities of Eustis Engineering's Field Exploration Staff	Blair Armant	Scott Bombard	James Cordes	Tevin Crawford	Rene Davidson	Eric Held	James Lubben	George Reitmeyer	Lawrence Rome
Hand Auger Borings	X	X	X	X	X	X	X	X	X
General Type (3-in. Diameter Borings)	X	X	X	X	X	X	X		X
General Type (3-in. Diameter Borings) in Hard Access Locations (Marsh, Swamp, Heavily Forested)	X	X	X	X	X	X	X		X
Undisturbed Type (5-in. Diameter Borings)	X	X	X	X	X	X	X		X
Undisturbed Type (5-in. Diameter Borings) in Hard Access Locations (Marsh, Swamp, Heavily Forested)	X	X	X	X	X	X	X		X
Location Information (Latitude, Longitude)	X	X	X	X	X	X	X		X
Set Permanent Benchmarks	X	X	X	X	X	X	X		X
Install Instrumentation	X	X	X	X	X	X	X		X
Cone Penetration Tests		X				X		X	X
Geoprobe Sampling		X	X		X	X	X		X

Field Exploration Equipment

Eustis Engineering owns and operates seven wet rotary drill rigs. These include truck, track, and skid-mounted rigs. This equipment includes one Diedrich truck-mounted D-50 turbo drill rig (with an automatic SPT hammer); one truck-mounted CME-55 rig; one track-mounted CME-850X rig with an automatic hammer; one track-mounted CME-850XR rig with an automatic hammer; one truck-mounted CME-55 rig with a detachable CME-55 skid unit and automatic hammer; and two track mounted Geoprobe 3230 DT. We also own two track-mounted cone penetrometer systems capable of providing up to 15 tons of reaction. Our CME track rigs provide low ground pressure and are designed to traverse soft ground surfaces, steep slopes, and lightly wooded areas. Eustis Engineering also owns two direct push Geoprobe units: the 6620DT, and the 540M. Eustis Engineering's 6620DT Geoprobe with its 12-in. tracks allow this equipment to be used on pavement as well as off road and in rugged terrain. The 6620DT and 3230DT rigs also can be placed on specialized equipment. This includes a jack-up barge and a cargo buggy for operations over marsh/water. These units can install shallow monitoring wells and other instrumentation. We also have the capability to perform CPTs and downhole vanes using the 3230DT rigs. Our 540M Geoprobe can fit into confined spaces as narrow as 32 inches. The 540M can also be utilized on an airboat for coastal terrains.

Other Specialized Soil Sampling Equipment

In addition to our drill rigs, Eustis Engineering owns and operates an Acker Vane Shear to perform down hole in-situ testing. We also have hand augers to obtain samples at various depths for use in classification and stratification of soil deposits. This equipment can be used in association with handheld piston samplers to obtain small diameter samples. Finally, we operate dynamic cone penetration tests (DCPTs) to assess the in-situ strength of undisturbed soils and compacted materials in accordance with ASTM D6951.

Drone Capabilities

Eustis Engineering utilizes small Unmanned Aerial Systems (sUAS), more commonly known as “drones,” to enhance our services. We use drones to perform site inspections, field reconnaissance, pre/post-construction condition surveys, construction inspections, and other forms of visual monitoring. We currently operate a DJI Mavic Air 2S Drone piloted by a Part 107 Certified Remote Pilot.

LABORATORY SERVICES

Eustis Engineering’s laboratories are constantly evolving with the purchase of new equipment on a yearly basis. Our gINT® data management software from Bentley allows for maximum efficiency in the production of boring logs and data entry.

Eustis Engineering has also acquired OpenGround®, Bentley’s Cloud platform, which interfaces with a collection of geotechnical applications. OpenGround provides a comprehensive solution for collecting, reporting, managing, visualizing, analyzing, and accessing data. Its advanced digital workflows combine both subsurface and surface data into one cohesive design. This software provides Eustis Engineering’s team members access to a data source via connected applications or a web portal, increasing both collaboration and efficiency. Improved access and reliability will save time and money in the planning, design, analysis, construction, and operation of infrastructure projects.

Eustis Engineering has also acquired KeyLAB® from Bentley. KeyLAB is the leading laboratory management system built specifically for geotechnical and construction materials testing laboratories. It improves our laboratory efficiency at every stage of the geotechnical and construction testing process, including sample and storeroom management, as well as electronic scheduling, testing, and reporting. It integrates with Microsoft Excel®, allowing for the efficient development of customized worksheets and reports.

Technical testing common to our laboratories includes ASTM; American Concrete Institute (ACI); State of Louisiana, Department of Transportation and Development (LaDOTD); AASHTO; FAA; and the U.S. Army Corps of Engineers (USACE). Our laboratories hold accreditations from AASHTO, LaDOTD, and the USACE.

Laboratory Staffing

Eustis Engineering currently has qualified technicians to sample construction materials and perform soil mechanics laboratory testing. These technicians are versed in the latest standards from ASTM, LaDOTD, MDOT, AASHTO, FAA, and the USACE. Many of our technicians have earned certifications with the National Institute for Certification in Engineering Technologies (NICET) in the area of geotechnical engineering technology and in the subfields of construction, exploration, generalist, and laboratory.

Laboratory Quality Control

In our effort to ensure the quality of our laboratory and materials testing, our programs are regularly inspected by outside agencies such as the USACE, the AMRL Group of the American Association of State Highway and Transportation Officials, and the CCRL Group of AASHTO. Eustis Engineering is also accredited by the Mississippi Department of Transportation.

Eustis Engineering has three soil mechanics laboratories where our laboratory practices and quality management system meet the requirements of AASHTO R 18 and ASTM E329. These offices are located in Metairie, Baton Rouge, and Gulfport. Individual offices may comply with ASTM quality system specifications including ASTM C1077, ASTM D366, and ASTM D3740. Accreditations in the various areas are shown below.

Metairie	Baton Rouge	Gulfport
Aggregate	Aggregate	Aggregate
Concrete	Soil	Asphalt
Masonry	Concrete	Concrete
Soil	Spray Fire-Resistive Material	Soil
		Spray Fire-Resistive Material

To further show quality is paramount to Eustis Engineering, we have two individuals in charge of maintaining quality in our testing. Travis R. Richards, P.E., is the Engineer-In-Charge. Timmy Holleman, dedicated Quality Control Manager, oversees the calibration of our equipment and maintenance of our quality system. The biggest reward of our quality system is knowing our clients are confident our testing laboratories produce the highest quality results and conform to state and national standards.

CONSTRUCTION MATERIALS TESTING

Eustis Engineering has been involved in construction materials testing (CMT) and inspection on a regular basis since the mid-1980s. Over the past 30+ years, Eustis Engineering has accumulated a wealth of experienced technicians in these areas. Whether 20 feet down in an excavation or 20 stories up in a high rise, our CMT technicians are there providing the inspection services needed on individual projects.

Staffing

Eustis Engineering currently has nearly 30 technicians on staff to provide construction inspection services on a daily basis. These services encompass the areas of soils, piling, asphalt, concrete, steel, and others.

Services

Soils testing in the field is performed by means of density tests, fill placement inspection, and depth checks. These services are performed by technicians who have attended courses by Troxler or Humboldt in the use of nuclear density devices.


Piling services include the inspection of various types of piles, logging these piles, and performance of pile load tests with calibrated equipment. Load test results are, in turn, interpreted and reported by a registered engineer on our staff.

Our realm of concrete inspection includes the formulation and review of mix designs, quality control at the plant and in the field, materials testing and sampling, precast piling inspection, post tension inspection, floor flatness, and mortar and grout inspection. These services are performed by our ACI and NICET certified technicians.

Steel inspection may include the visual inspection of structural steel at the site or in the shop, steel and pipe coating sampling, post tension and welder certification witnessing, and the performance of ultrasonic and x-ray testing. These services are performed by members of our staff currently certified with AWS, ASNT, and/or ASME.

Other CMT services provided by Eustis Engineering personnel include fireproofing inspection, vibration and acoustical monitoring, paint inspection, and more.

O. To the best of my knowledge, the foregoing is an accurate statement of facts.

Signature: 
Title: President

Print Name: Gwendolyn P. Sanders, P.E.
Date: 21 June 2024

TEC Professional Services Questionnaire: Hydroterra Technologies, LLC



Technical Evaluation Committee (TEC) Questionnaire

Instructions

- The Technical Evaluation Committee (TEC) Questionnaire shall be used for professional services related to architecture, engineering, or survey projects.
- **The TEC Questionnaire should be completely filled out. Complete and attach ALL sections. Insert “N/A” or “None” if a section does not apply or if there is no information to provide.**
- Questionnaire must be signed by an authorized representative of the Firm. Failure to sign the questionnaire shall result in disqualification of proposer pursuant to J.P. Code of Ordinances Sec. 2-928.
- All subcontractors must be listed in the appropriate section of the Questionnaire. Each subcontractor must provide a complete copy of the TEC Questionnaire, applicable licenses, and any other information required by the advertisement. Failure to provide the subcontractors' complete questionnaire(s), applicable licenses, and any other information required by the advertisement shall result in disqualification of proposer pursuant to J.P. Code of Ordinances Sec. 2-928.
- If additional pages are needed, attach them to the questionnaire and include all applicable information that is required by the questionnaire.

TEC Professional Services Questionnaire

A. Project Name and Advertisement Resolution Number:

SOQ 24-020 Coastal Engineering Consulting Services as needed parish wide Jefferson Parish Government

B. Firm Name & Address:

Hydroterra Technologies, LLC
212 Jacobs Run, Scott Louisiana 70583

C. Name, title and contact information of Principal, as defined in Section 2-926 of the Jefferson Parish Code of Ordinances, who is a registered, licensed architect, professional engineer, or surveyor in the State of Louisiana:

Keith J. Roberts – PLS/General Manager
keithr@hydroterratec.com | 337-517-3373
Louisiana Survey License No 4780 Active registration: Year first registered: 1996

D. Name and contact information of employee who is a registered and licensed architect, professional engineer, or surveyor in the State of Louisiana in the applicable discipline. A subcontractor may be substituted here only if the advertised Project requires more than one discipline.**E. Please provide the number of employees whose primary function corresponds with each category:**

<u> 2 </u> Administrative	<u> 1 </u> Estimators	<u> </u> Specification Writers
<u> </u> Architects (Licensed)	<u> 1 </u> Geologists	<u> </u> Structural Engineers
<u> </u> Chemical Engineers	<u> </u> Geotechnical Engineers	<u> </u> Graduate Engineers
<u> </u> Civil Engineers	<u> </u> Interior Designers	<u> 4 </u> Project Managers
<u> </u> Construction Inspectors	<u> </u> Landscape Architects	<u> </u> Clerical
<u> </u> Ecologists	<u> 10 </u> Land Surveyor	<u> </u> Grant/Funding Specialist
<u> </u> Electrical Engineers	<u> </u> Mechanical Engineers	<u> </u> Sanitary Engineers
<u> </u> Engineer Intern	<u> </u> Environmental Engineers	
<u> 3 </u> Professional Land Surveyors		<u> 21 </u> TOTAL

F. Is this submittal by a JOINT-VENTURE? Please check: YES NO X

If marked “No” skip to Section I. If marked “yes” complete Sections G-H.

TEC Professional Services Questionnaire

G. If submittal is by JOINT-VENTURE, list the firms participating and outline specific areas of responsibility (including administrative, technical, and financial) for each firm. Please attach additional pages if necessary.

1.

2.

H. Has this JOINT-VENTURE previously worked together? Please check:
YES NO

I. List all subcontractors anticipated for this Project. Please note that all subcontractors must submit a fully completed copy of this questionnaire, applicable licenses, and any other information required by the advertisement. See Jefferson Parish Code of Ordinances, Sec. 2-928(a)(3). Please attach additional pages if necessary.

Name & Address:	Specialty:	Worked with Firm Before (Yes or No):
1.		
2.		
3.		

J. Please specify the total number of support personnel that may assist in the completion of this Project:

TEC Professional Services Questionnaire

K. List the professional in charge, key persons, specialists, and individual consultants anticipated for this Project and provide their relevant information below. If necessary, please attach additional documentation (i.e. resume) that demonstrates the employment history and experience of the Firm's key persons that may assist in the completion of this Project. Please attach additional pages if necessary.
PROFESSIONAL IN CHARGE OF PROJECT:
Name & Title: Keith J. Roberts PLS - General Manager
Project Assignment: Overall in charge of Hydrographic and Landing Surveying Requirements
Name of Firm with which associated: Hydroterra Technologies, LLC
Years' experience with this Firm: 15
Education: Degree(s)/Year/Specialization: Diploma/1979/Civil Engineering Technology
Active registration: Year first registered/discipline: Louisiana Survey License No 4780 Active registration; Year First Registered: 1996
Other experience and qualifications relevant to the proposed Project: HydroTerra Technologies, LLC Scott LA <i>Managing Partner and Professional Land Surveyor</i> Feb 2009-Present <ul style="list-style-type: none"> Project Manager/Surveyor in Responsible Charge on numerous hydrographic, topographic, hazard, geodetic control, and marine construction surveys along the entire Gulf Coast in support of CPRA, DNR, USACE, and NRCS projects. C.H. Fenstermaker & Assoc. Lafayette, LA <i>Land Surveyor/Survey Operations Manager/Director/Assistant Vice President</i> Jan 1996 – Feb 2009 <ul style="list-style-type: none"> Surveyor in Responsible Charge on numerous hydrographic, boundary, topographic, geodetic control and construction surveys along the entire Gulf Coast in support of Government and Oil & Gas Operations. Responsibilities included but were not limited to cost estimating, bid and proposal preparation; contract negotiations; research; establishing procedures for field data acquisition and processing; geodetic control networks; calculations and analysis; boundary opinions, expert witness testimony, TIN creation and volumes; and CAD (Computer Aided Drafting) mapping.

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
Name & Title:
Tim Fontenot - PLS
Project Assignment:
Project Manager
Name of Firm with which associated:
Hydroterra Technologies, LLC
Years' experience with this Firm:
7
Education: Degree(s)/Year/Specialization:
University of Louisiana at Lafayette: B.S. Business Administration Louisiana Technical College - T.H. Harris Campus: Civil Engineering Technology
Active registration: Year first registered/discipline:
Louisiana Survey License No 5717 Active registration: Year first registered: 2000
Other experience and qualifications relevant to the proposed Project:
<p>HydroTerra Technologies, LLC – Scott, LA <i>Project Manager and Professional Land Surveyor</i> Nov 2017 - Present</p> <ul style="list-style-type: none"> Project Manager on numerous hydrographic, topographic, hazard, geodetic control, and marine construction surveys along the entire Gulf Coast in support of CPRA, DNR, USACE, and NRCS projects. <p>LW Survey – Lafayette, LA <i>Land Surveyor Project Manager</i> Jan 2015 – Nov 2017</p> <p>Responsible for the immediate supervision of the Land Surveyors and the Survey Technicians as well as providing any necessary operational support and/or coverage for the Senior Survey Project Manager and/or Director of Survey Operations. Coordinates with the Client, Survey Supervisor/Field Crews, and the GIS group to assist in ensuring quality project organization.</p> <p>C.H. Fenstermaker & Assoc. – Lafayette, LA <i>Associate Director/ Surveyor</i> Feb 2003 – Jan 2015</p> <p>Managed client relations and supervised a team to fulfill clients' requests. Reported projected workloads, review/approve invoices and timesheets, assisted in collecting accounts receivable, and provided coaching for team members. Continuously evaluated processes and assisted in evolving and/or developing new methods to assure that the company preformed efficiently.</p>

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
Name & Title:
Jason J. Poret – PLS/Certified Hydrographer
Project Assignment:
Project Manager
Name of Firm with which associated:
Hydroterra Technologies, LLC
Years' experience with this Firm:
15
Education: Degree(s)/Year/Specialization:
Diploma/1979/ Civil Engineering Technology/Louisiana Technical College - T.H. Harris Campus Opelousas, Louisiana
Active registration: Year first registered/discipline:
Arkansas Survey License No 1617 - Active Registration: Year First Registered 2007 Certified Hydrographer - 240 (2007)
Other experience and qualifications relevant to the proposed Project:
<p>HydroTerra Technologies, LLC – Scott, LA <i>Managing Partner and Professional Land Surveyor</i> May 2008 - Present</p> <ul style="list-style-type: none"> Project Manager/Surveyor in Responsible Charge on numerous hydrographic, topographic, hazard, geodetic control, and marine construction surveys along the entire Gulf Coast in support of CPRA, DNR, USACE, and NRCS projects. <p>C.H. Fenstermaker & Assoc. – Lafayette, LA <i>Land Surveyor/Project Manager</i> Feb 2004 – May 2008</p> <ul style="list-style-type: none"> Managed numerous hydrographic, boundary, topographic, geodetic control and construction surveys along the entire Gulf Coast in support of Government and Oil & Gas Operations. Responsibilities included but were not limited to cost estimating, bid and proposal preparation; contract negotiations; research; establishing procedures for field data acquisition and processing; geodetic control networks; calculations and analysis; boundary opinions, expert witness testimony, TIN creation and volumes; and CAD (Computer Aided Drafting) mapping.

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
Name & Title:
Mike Nitska – Cost Estimator
Project Assignment:
Cost Estimator
Name of Firm with which associated:
Hydroterra Technologies, LLC
Years' experience with this Firm:
12
Education: Degree(s)/Year/Specialization:
BS/1981/Hydrographic Surveying Degree
Active registration: Year first registered/discipline:
Other experience and qualifications relevant to the proposed Project:
<p>HydroTerra Technologies, LLC, Scott, LA <i>Cost Estimator</i> March 2012 - Current</p> <ul style="list-style-type: none"> Cost Estimator responsible for all cost estimates in support of Parish, CPRA, DNR, USACE, and NRCS projects along the entire Gulf Coast. <p>Navigation Electronics Inc. Lafayette, LA <i>Rental Coordinator/Trimble Survey Support Specialist</i> April 2008 – March 2012</p> <ul style="list-style-type: none"> Tasks included but were not limited to coordinating all GPS/Conventional/Marine/Hydrographic rentals. Technical support for Trimble survey and marine products. <p>UTEC Surveys Houston TX <i>Project Manager</i> 2004 – April 2008</p> <ul style="list-style-type: none"> Coordinate crews for platform recovery operations in the Gulf of Mexico following Hurricane Katrina. Senior navigator on oil and gas projects in the North Sea and off the coast of Western Australia. Performed high definition laser scanner surveys. <p>C. H. Fenstermaker and Associates, Lafayette, LA <i>Special Projects Manager</i> 2000 - 2004</p> <ul style="list-style-type: none"> Responsibilities included but were not limited to cost estimating, bid and proposal preparation; contract negotiations; establishing procedures for field data acquisition and processing; geodetic control networks; and CAD (Computer Aided Drafting) mapping.

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
Name & Title:
Jake Boyd – Party Chief
Project Assignment:
Party Chief
Name of Firm with which associated:
Hydroterra Technologies, LLC.
Years' experience with this Firm:
10
Education: Degree(s)/Year/Specialization:
Active registration: Year first registered/discipline:
Other experience and qualifications relevant to the proposed Project:
HydroTerra Technologies, LLC – Scott, LA <i>Party Chief</i> May 2014 - Present Responsible for topographic, bathymetric, and magnetometer surveys utilizing a combination of Real Time Kinematic GNSS (RTK), electronic echo-sounding equipment and methodologies, and metal locators.

TEC Professional Services Questionnaire

L. Work by Firm or Joint-Venture members which best illustrates current qualifications relevant to this Project. Please include any and all work performed for Jefferson Parish. Please attach additional pages if necessary.		
PROJECT NO. 1		
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
CPRA - Bayou De Cade Marsh and Ridge Creation (TE-0138), Terrebonne Parish, LA Tina Moore (409) 833-3330 tmoore@apolloenviro.com	Subcontracted to Apollo Environmental. Hydroterra Technologies provided bathymetric, topographic, magnetometer surveys and aerial photographs and submittals of the project features	
Completion Date (Actual or estimated):	Estimated Cost:	
July 2022	Entire Project: \$17 Million	Work for which Firm was Responsible: \$422K

PROJECT NO. 2		
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
United States Department of Agriculture - Natural Resources Conservation Service - LaBranche Marsh Creation PO-75 Jessica Heath (904) 831-2381 JHeath@MansonConstruction.com	Subcontracted to Manson Construction. Hydroterra Technologies provided bathymetric (Single beam and multibeam), topographic and magnetometer surveys and submittals of the project features	
Completion Date (Actual or estimated):	Estimated Cost:	
On-going	Entire Project:	Work for which Firm was Responsible: \$469K

TEC Professional Services Questionnaire

PROJECT NO. 3		
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility	
Port of Iberia - AGMAC Channel Dredging Phase 2 Andrew George (361) 746-1540 AGeorge@orionmarinegroup.com	Subcontracted to Orion Marine Group. Hydroterra Technologies provided bathymetric (Single beam and multibeam), topographic and magnetometer surveys and submittals of the project features	
Completion Date (Actual or estimated)	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
On-going		\$421K

PROJECT NO. 4		
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
Jefferson Parish Upper Barataria Terracing Project Ryan Fikes (512) 617-3141 ryan.fikes@freese.com	Subcontracted to Freese and Nichols. Hydroterra Technologies provided bathymetric (Single beam), topographic and magnetometer surveys and submittals of the project features	
Completion Date (Actual or estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
Feb 2023		\$ 34K

TEC Professional Services Questionnaire

PROJECT NO. 5		
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
USACE - Grand Isle, Post-Ida Clay Core Geotube Repairs Tyler Upton (713) 609-3940 Tupton@callanmarineltd.com	Subcontracted to Callan Marine. Hydroterra Technologies provided bathymetric (Single beam and multibeam), topographic, magnetometer and digital levelling surveys and submittals of the project features	
Completion Date (Actual or estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
On-going		\$300K

PROJECT NO. 6		
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
CPRA - East Rainey Marsh Creation - Pecan Island Component Survey April Newman (225) 218-7610 April.Newman@LA.GOV	Contracted to Callan Marine. Hydroterra Technologies provided bathymetric (Single beam and multibeam), topographic, magnetometer and sidescan surveys for design and submittals of the project features	
Completion Date (Actual or estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
Sept 2023		\$387K

TEC Professional Services Questionnaire

M. List all prior and/or on-going litigation between Firm and Jefferson Parish. Please attach additional pages if necessary.

Parties:		Status/Result of Case:
Plaintiff:	Defendant:	
1. N/A		
2.		

N. Use this space to provide any additional information or description of resources supporting Firm's qualifications for the proposed project.

HydroTerra Technologies, LLC is a **Hudson Initiative Certified Small and Emerging Business Enterprise, a Hudson Certified Active Small Entrepreneurship Business and a BBB Accredited Business**. We are a full-service land and hydrographic surveying firm, specializing in inshore and near shore shallow water hydrographic surveying and a wide range of land survey services. Although initially formed as a consulting firm over 16 years ago, we have expanded our initial focus and capabilities to provide a wide array of land and hydrographic surveying services to a diverse variety of clientele. Using the latest technology and innovative techniques, HydroTerra Technologies, LLC provides cost effective land and hydrographic solutions to our clients including; coastal restoration projects, marsh creation projects, rock revetment projects, dredging support surveys, oil and gas well location surveys, pipeline and utility route surveys, right of way mapping, site clearance and investigation, LiDAR survey, aerial photography surveys, hazard surveys (magnetometer, sidescan and sub bottom profilers), single beam bathymetric surveys, multibeam bathymetric surveys, GIS acquisition and development, consulting and training, and mapping and charting. We currently have professional survey licenses for Texas, Oklahoma, Arkansas, Louisiana, Mississippi, Alabama, Tennessee, and Florida, in addition to having a certified Hydrographer on staff.

Keith J. Roberts is a Professional Land Surveyor licensed in the State of Louisiana (#4780) having an extensive amount of experience in hydrographic, topographic, and geodetic control surveying. Being a pioneer in the early stages of Global Positioning System (GPS), Mr. Roberts has provided GPS training to various government agencies and was part of the initial survey team that established deep rod monuments as part of LADNR's primary GPS network in addition to assisting in authoring the first iteration of A Contractor's Guide to Minimum Standards for Contractors Performing GPS Surveys & Establishing GPS Derived Orthometric Heights Within the Louisiana Coastal Zone.

The entire staff at HydroTerra has performed projects at present and/or past firm(s) that required performing survey work and providing submittals.

O. To the best of my knowledge, the foregoing is an accurate statement of facts.

Signature: Mike Nitska Print Name: Mike Nitska

Title: Cost Estimator Date: July 10, 2024

TEC Professional Services Questionnaire: Marais Consultants, LLC

Innovative approaches

Technical Evaluation Committee (TEC) Questionnaire

Instructions

- The Technical Evaluation Committee (TEC) Questionnaire shall be used for professional services related to architecture, engineering, or survey projects.
- **The TEC Questionnaire should be completely filled out. Complete and attach ALL sections. Insert “N/A” or “None” if a section does not apply or if there is no information to provide.**
- Questionnaire must be dated and signed by an authorized representative of the Firm. Failure to sign the questionnaire shall result in disqualification of proposer pursuant to J.P. Code of Ordinances Sec. 2-928.
- All subcontractors must be listed in the appropriate section of the Questionnaire. Each subcontractor must provide a complete copy of the TEC Questionnaire, applicable licenses, and any other information required by the advertisement. Failure to provide the subcontractors' complete questionnaire(s), applicable licenses, and any other information required by the advertisement shall result in disqualification of proposer pursuant to J.P. Code of Ordinances Sec. 2-928.
- If additional pages are needed, attach them to the questionnaire and include all applicable information that is required by the questionnaire.

TEC Professional Services Questionnaire

A. Project Name and Advertisement Resolution Number:

Coastal Engineering Consulting Services as needed parish wide
Resolution No. 144205

B. Firm Name & Address:

Marais Consultants LLC
2018 Jena Street
New Orleans, LA 70115

C. Name, title and contact information of Principal, as defined in Section 2-926 of the Jefferson Parish Code of Ordinances, who is a registered, licensed architect, professional engineer, or surveyor in the State of Louisiana:

Jennifer Snape, PE
Owner and Lead Designer
Phone: 504.350.2644
Email: jenny@maraisconsultants.com

D. Name and contact information of employee who is a registered and licensed architect, professional engineer, or surveyor in the State of Louisiana in the applicable discipline. A subcontractor may be substituted here only if the advertised Project requires more than one discipline.

Jennifer Snape, PE
Owner and Lead Designer
Phone: 504.350.2644
Email: jenny@maraisconsultants.com

E. Please provide the number of employees whose primary function corresponds with each category:

<u>1</u> Administrative	<u> </u> Estimators	<u> </u> Specification Writers
<u> </u> Architects (Licensed)	<u> </u> Geologists	<u>1</u> Structural Engineers
<u> </u> Chemical Engineers	<u> </u> Geotechnical Engineers	<u>3</u> Graduate Engineers
<u>1</u> Civil Engineers	<u> </u> Interior Designers	<u> </u> Project Managers
<u> </u> Construction Inspectors	<u> </u> Landscape Architects	<u> </u> Clerical
<u> </u> Ecologists	<u> </u> Land Surveyor	<u> </u> Grant/Funding Specialist
<u> </u> Electrical Engineers	<u> </u> Mechanical Engineers	<u> </u> Sanitary Engineers
<u>3</u> Engineer Intern	<u> </u> Environmental Engineers	
<u> </u> Professional Land Surveyors		<u>9</u> TOTAL

F. Is this submittal by a JOINT-VENTURE? Please check: YES ☐ NO ☒

If marked "No" skip to Section I. If marked "yes" complete Sections G-H.

TEC Professional Services Questionnaire

G. If submittal is by JOINT-VENTURE, list the firms participating and outline specific areas of responsibility (including administrative, technical, and financial) for each firm. Please attach additional pages if necessary.		
1. <div style="border: 1px solid black; height: 40px; width: 100%;"></div>		
2. <div style="border: 1px solid black; height: 40px; width: 100%;"></div>		
H. Has this JOINT-VENTURE previously worked together? Please check: YES <input type="checkbox"/> NO <input type="checkbox"/>		
I. List all subcontractors anticipated for this Project. Please note that <u>all subcontractors must submit a fully completed copy of this questionnaire</u>, applicable licenses, and any other information required by the advertisement. See Jefferson Parish Code of Ordinances, Sec. 2-928(a)(3). Please attach additional pages if necessary.		
Name & Address:	Specialty:	Worked with Firm Before (Yes or No):
1. <div style="border: 1px solid black; height: 40px; width: 100%;"></div>	<div style="border: 1px solid black; height: 40px; width: 100%;"></div>	<div style="border: 1px solid black; height: 40px; width: 100%;"></div>
2. <div style="border: 1px solid black; height: 40px; width: 100%;"></div>	<div style="border: 1px solid black; height: 40px; width: 100%;"></div>	<div style="border: 1px solid black; height: 40px; width: 100%;"></div>
3. <div style="border: 1px solid black; height: 40px; width: 100%;"></div>	<div style="border: 1px solid black; height: 40px; width: 100%;"></div>	<div style="border: 1px solid black; height: 40px; width: 100%;"></div>
J. Please specify the total number of support personnel that may assist in the completion of this Project: <div style="border: 1px solid black; height: 20px; width: 100%;"></div>		

TEC Professional Services Questionnaire

K. List the professional in charge, key persons, specialists, and individual consultants anticipated for this Project and provide their relevant information below. If necessary, please attach additional documentation (i.e. resume) that demonstrates the employment history and experience of the Firm's key persons that may assist in the completion of this Project. Please attach additional pages if necessary.

PROFESSIONAL IN CHARGE OF PROJECT:

Name & Title:

Jennifer Snape, PE
Owner and Lead Designer

Project Assignment:

Lead Engineer

Name of Firm with which associated:

Marais Consultants LLC

Years' experience with this Firm:

2 years

Education: Degree(s)/Year/Specialization:

Master's Certificate /2012/ Coastal Engineering
B.S./2004/Civil Engineering

Active registration: Year first registered/discipline:

2010/LA Civil Engineering PE # 35470
Also in CA, AL, FL, MS, MT, HI
ASCE Sustainable Infrastructure Certificate

Other experience and qualifications relevant to the proposed Project:

Jennifer Snape, PE is owner and lead designer at Marais Consultants LLC and has 21 years of experience in the engineering field, with more than 10 years of coastal engineering experience in Southern Louisiana. She has a wide range of project experience including coastal erosion protection systems design; hydrologic and hydraulic modeling; stormwater management plans for urban, rural, and coastal systems; environmental consulting and due diligence studies; sewer design; grading and drainage design; structural design for both residential and commercial structures for renovations and new construction; civil site design for sites ranging from less than an acre to over 1000 acres; and permitting through federal, state, and local agencies. She has successfully managed and delivered projects for private and public clients, including the City of New Orleans, Sewerage & Water Board of New Orleans, Plaquemines Parish, St. Bernard Parish, St. Tammany Parish, and others. At Marais, she oversees, manages, and designs all engineering projects.

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
Name & Title:
Jake Yemma, PE Civil Engineer
Project Assignment:
Civil Engineer
Name of Firm with which associated:
Marais Consultants, LLC
Years' experience with this Firm:
<1 year
Education: Degree(s)/Year/Specialization:
BS/ Civil Engineering/ Louisiana State University BS/ Music/ Tulane University
Active registration: Year first registered/discipline:
2023/LA Civil Engineering PE #0048432
Other experience and qualifications relevant to the proposed Project:
Jake Yemma, PE is a Civil Engineer at Marais Consultants, LLC. Mr. Yemma completed his bachelor's degree at Tulane in 2016. While in school, he interned for the Louisiana DOTD where he honed his skills in data collection and Arc GIS. He spent several years in New York working on private and public roadway and infrastructure projects and returned to New Orleans to work for the Louisiana DOTD as an EIT. Mr. Yemma has extensive experience with permitting, cost estimating, project management, roadway design, grading and drainage, traffic analysis and reporting, construction staging, inspection, and MPT, stormwater management, surveying, cost. He is also proficient in construction administration, including submittal and shop drawing reviews for residential and commercial projects.

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
Name & Title:
Cleo Pappas, EI Engineer Intern
Project Assignment:
Project Designer
Name of Firm with which associated:
Marais Consultants LLC
Years' experience with this Firm:
2 years
Education: Degree(s)/Year/Specialization:
Master's Certificate / 2024 / Coastal Engineering B.S. / 2021 / Civil Engineering
Active registration: Year first registered/discipline:
2021 / LA Civil Engineering EI #34841
Other experience and qualifications relevant to the proposed Project:
Cleo Pappas is a Project Designer at Marais Consultants LLC. Beginning as a student intern a year prior to graduation, Cleo has gained a wide range of experience including civil site design (sewer and wastewater), drainage design, and stormwater management plans. She has also assisted in the design of residential and commercial structures from new construction to historic renovations. Cleo is adept at using AutoCAD, ArcGIS, and RISA. Cleo has been involved in the design of several City of New Orleans roadway projects that included the design of sanitary sewer lines and she has developed plan and profile drawings for construction drawings for those designs.

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
Name & Title:
Philip Aucoin, EI Civil and Structural Designer
Project Assignment:
Project Designer
Name of Firm with which associated:
Marais Consultants LLC
Years' experience with this Firm:
1 year
Education: Degree(s)/Year/Specialization:
B.S. / 2015 / Civil Engineering
Active registration: Year first registered/discipline:
2016 / LA Civil Engineering EI #32861
Other experience and qualifications relevant to the proposed Project:
<p>Philip Aucoin, EI is a civil and structural designer at Marais specializing in residential and small to medium commercial projects. After graduating with a B.S. in Civil Engineering from LSU, he began working as a field engineer for a roadway and utility construction company. He has 8 years of experience in civil site design (including sewer and wastewater), roadway/parking lot design, and structural design for various projects throughout the Southeastern United States. Mr. Aucoin has worked directly with design engineers and inspectors on a variety of public and private projects. Some of these projects spanned across many years and cost \$10+ million to complete. As a field engineer for Barriere Construction, Phil worked on several large-scale roadway projects that involved extensive sewer installations. One of these was a street widening project on Ames Blvd. in Marrero, and included a sewer force main, i.e. pressurized sewer lines. Another roadway project involved post-Katrina street repairs to the gravity sewer system at St. Bernard Ave. in New Orleans. At Marais, Mr. Aucoin assists with the preparation of civil and structural engineering drawings; prepares and modifies calculations and reports; conducts data research and field investigations; and coordinates with public and government agencies.</p>

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
Name & Title:
Anne Gutierrez, EI Civil Engineer
Project Assignment:
Project Designer
Name of Firm with which associated:
Marais Consultants LLC
Years' experience with this Firm:
>1 year
Education: Degree(s)/Year/Specialization:
B.S. / 2020 / Civil Engineering
Active registration: Year first registered/discipline:
2023 / FL Civil Engineering EI # 1100026549 2023 / Certificate of Training - Suspended Scaffold Competent Person 2023 / Remote (Drone) Pilot - Small Unmanned Aircraft Systems (UAS) #4926504
Other experience and qualifications relevant to the proposed Project:
Anne Gutierrez, EI recently joined Marais as a Project Designer. Ms. Gutierrez completed her bachelor's degree in Civil Engineering at the University of Louisiana in Lafayette in 2020. Anne has extensive experience with structural design, forensic investigations and assessments, restoration and historic renovation, residential design, and construction administration. Following graduation, Anne worked with a small local structural engineering firm in Santa Rosa, Florida where she conducted residential inspections for hurricane damages homes and oversaw construction for home renovations. Anne continued gaining experience with a nation-wide firm in Tampa where she performed structural design for small to medium residential and commercial buildings. She also applied her design skills to restorations of a large apartment complex and a hotel roof/envelope. At Marais, Anne is performing structural design for small to medium residential and commercial sites throughout southern Louisiana and is continuing to add to her impressive skill set as she works toward her Professional Engineer certification.

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
Name & Title:
Alexander Vu Project Designer
Project Assignment:
Project Designer
Name of Firm with which associated:
Marais Consultants LLC
Years' experience with this Firm:
1 year
Education: Degree(s)/Year/Specialization:
B.S. / 2021 / Civil Engineering
Active registration: Year first registered/discipline:
2021/ Procore Certified Project Manager 2021/ USACE Construction Quality Mgmt/ SE9-04-19-00231
Other experience and qualifications relevant to the proposed Project:
Alexander Vu is a civil and structural designer and project manager at Marais. He specializes in project management and estimating; site supervision; scheduling; quality control; project financials and budgets; value engineering; civil design; and structural design. He is experienced with ProCore, BIM360, Submittal Exchange, and AutoCAD/Civil 3D. Mr. Vu is a member of the American Concrete Institute (ACI), American Society of Civil Engineers (ASCE), and the Society of American Military Engineers (SAME). Alexander is a Procore Certified: Project Manager and is certified through the USACE: Construction Quality Management for Contractors (SE9-04-19-00231)

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
Name & Title:
Laura Snape Graphic Designer
Project Assignment:
CAD Technician
Name of Firm with which associated:
Marais Consultants LLC
Years' experience with this Firm:
2 years
Education: Degree(s)/Year/Specialization:
B.A. / 2006 / Studio Art and French Language
Active registration: Year first registered/discipline:
N/A
Other experience and qualifications relevant to the proposed Project:
<p>Laura Snape is a graphic designer with more than 15 years of experience providing design support to engineers and architects. In 2006, she graduated with a degree in studio art and started working in the engineering industry as a project coordinator. She is skilled in Auto CAD, web design, print design, and Arc GIS. Laura specializes in crafting and implementing public outreach plans and designing support resources to accompany these projects. She has been recognized for her work with multiple awards from the Society for Marketing Professional Services (SMPS) for communications materials. At Marais, she assists with the preparation of civil and structural engineering drawings for projects of all types and sizes.</p>

TEC Professional Services Questionnaire

L. Work by Firm or Joint-Venture members which best illustrates current qualifications relevant to this Project. Please include any and all work performed for Jefferson Parish. Please attach additional pages if necessary.		
PROJECT NO. 1		
Project Name, Location and Owner's contact information: Campus-wide Drainage Study City of Kenner Jefferson Parish Jeff Doudrick Burns & McDonnell 816-286-6900 jadoudrick@burnsmcd.com	Nature of Firm's Responsibility: The overarching goal of this effort will be to provide the project area with a comprehensive model documenting the subcatchments, collection systems, and conduits serving the site as they currently exist; and assessing drainage impacts in terms of discharge and stage variation in the connecting canal outfalls due to current and selected future infrastructure improvements. The developed model will serve as a base model that will allow for future model adjustments to be made with relative ease when the model is used for assessment of drainage impacts due to proposed future improvements involving new fill and impervious pavements, and any detention features.	
Completion Date (Actual or estimated): Estimated 2024	Estimated Cost:	
	Entire Project: N/A	Work for which Firm was Responsible: \$45,000

PROJECT NO. 2		
Project Name, Location and Owner's contact information: Bayou St. John Water Quality Testing New Orleans, LA Danielle Duhe 504-345-2639 dduhe@danabrownassociates.com	Nature of Firm's Responsibility: Sample and analyze runoff collected in each of the 5 GI facilities • Field tests: temperature, dissolved oxygen, electric conductance, pH, and turbidity • Lab tests: TSS, BOD, and phosphorus	
Completion Date (Actual or estimated): Estimated 2024	Estimated Cost:	
	Entire Project: N/A	Work for which Firm was Responsible: \$44,776

TEC Professional Services Questionnaire

PROJECT NO. 3		
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility	
<p>Brazilier Island Infrastructure Development</p> <p>Brazilier Island New Orleans, LA</p> <p>Bryce French Landowner 504-427-2090 bryce@maxderbes.com</p>	<p>This shoreline infrastructure development project is located on a 112.7 (+/-) acre parcel of land located in Orleans Parish on the north side of Hwy 90 and on the east bank of Chef Menteur Pass referred to as Brazilier Island. This area of coastal marsh plays an important role in absorbing storm surge from Lake Pontchartrain and is a crucial habitat for wildlife.</p> <p>The first phase of the project is to provide power, drinking water, and sanitary sewer service to the site, install an entrance gate, and make repairs to the road to make it passable and dry. Phase II will include structures for rental properties and improvements to boat slips and water-side access to the site for recreation.</p>	
Completion Date (Actual or estimated)	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
Estimated 2024	\$13,000	\$13,000

PROJECT NO. 4		
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
<p>Lincoln Beach Redevelopment Master Plan</p> <p>New Orleans, LA</p> <p>City of New Orleans Prime - Sasaki Joshua Brooks, PE 720.776.4675 jbrooks@sasaki.com</p>	<p>Lincoln Beach is an approximately 15-acre property located on the shore of Lake Pontchartrain. The site is bordered on the southeast by a railroad track, flood protection levee, and a large roadway. It was established along the shores of the Lake in 1939 as a recreational area for the city's African American population. The site was managed by the City of New Orleans until its closing in 1964. Since then, the structures and facilities at Lincoln Beach have gradually deteriorated over time causing unsafe conditions at the site. The master planning process will facilitate additional public input and engage residents in formulating and implementing a plan that truly belongs to the community. It will include improved amenities for ongoing use of the site as well as shoreline improvements, beach nourishment, and new structures. Marais is providing civil and structural design and assistance with permitting for the project.</p>	
Completion Date (Actual or estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
Estimated 2025	N/A	\$132,000

TEC Professional Services Questionnaire

PROJECT NO. 5		
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
<p>ADA-Compliant Restroom Facility for Westwego WHARF Complex</p> <p>Westwego, LA</p> <p>City of Westwego Prime - APTIM Environmental Gerard Gillen 504.832.4880 gerard.gillen@aptim.com</p>	<p>This new construction project is part of a larger master plan in Westwego known as the WHARF – Wetlands Harbor Activities Recreational Facility. The City of Westwego acquired a 92-acre tract of cypress/bottomland hardwood forest that will enhance water access to the Jean Lafitte Historical Park, Bayou Segnette State Park, and Lake Salvador Game Management Preserve. The facility is being constructed on the unprotected side of the federal levee system, requiring buildings to be fortified beyond the typical standards for the area to increase the resiliency of the site. Due to its waterfront location, the project requires close coordination with the USACE for approval of developments along a navigable waterway. Marais provided design services for the construction of an ADA accessible facility at the WHARF. The facility will house restrooms, offices, storage areas, and a small event space. The building will be approximately 4,818 SF upon completion.</p>	
Completion Date (Actual or estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
Estimated 2024	N/A	\$25,000

PROJECT NO. 6		
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
<p>Ninth Ward Stadium</p> <p>New Orleans, LA</p> <p>Orleans Parish School Board Prime - Williams Architects Andrew Stephens 504.566.0888 astephens@williamsarchitects.com</p>	<p>This new construction school sports facility will include an artificial turf football field, an 8-lane track with field events included, a grandstand seating 3,000 - 5,000 spectators plus a pressbox and scoreboard, restrooms, concessions and ticketing, parking and site amenities. Marais's scope of work consists of civil and structural design for the complete construction of the stadium facility. Site Improvements include stadium lighting, access drives and parking, entry plaza and ticket booth, and perimeter fencing. The design focuses on incorporating green infrastructure and a storm water retention system in the site design through pervious concrete, stormwater detention/native planting areas, pervious pavers, and stormwater bioswales. The site's infrastructure will include electric vehicle charging stations, bicycle parking, dark sky compliant LED lighting, water-efficient plumbing, and recycled field turf.</p>	
Completion Date (Actual or estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
Estimated 2025	N/A	\$97,000

TEC Professional Services Questionnaire

PROJECT NO. 7		
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
Elevated Sleeve Pile Repair System (ESPRS) for St. Tammany Drainage District #4 Pumping Station 1221 Elmwood Park Boulevard New Orleans, LA Levare LLC John Anders john@andersconstruction.com	This project consists of repairs to seven (7) timber piles at the St. Tammany Parish Drainage District #4 Pumping Station utilizing ESPRS. Marais performed site visits to obtain the necessary information and measurements for the existing timber piles, concrete deck, and concrete beams to prepare the required design for ESPRS. We analyzed timber piles for suitable connections, determined dimensions and load conditions for concrete deck, determined potential shear and moment capacities of concrete support beams, and analyzed impacts of wind load on site facility.	
Completion Date (Actual or estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
Estimated 2024	N/A	\$5,000

PROJECT NO. 8		
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
Sewerage and Water Board Asset Management System Needs Assessment New Orleans, LA Sewerage and Water Board of New Orleans Prime - Freese and Nichols Nina Reins 504.478.1065 nina.reins@freese.com	Marais is working with Freese and Nichols to perform a thorough assessment of the SWB asset management system. We are compiling a summary of provided data along with feedback from past experience, assessing CASSWORKS activities and future replacement software needs, preparing documentation of departmental needs assessment workshops, reviewing the EAMS needs assessment findings, and reviewing and ranking RFPs based on scoring criteria developed by prime.	
Completion Date (Actual or estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
Estimated 2025	N/A	\$53,000

TEC Professional Services Questionnaire

PROJECT NO. 9		
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
<p>Ecole Pointe-au-Chien</p> <p>1558 Louisiana 665 Montegut, LA</p> <p>Williams Architects Morgan Conner 504.566.0888 mconner@williamsarchitects.com</p>	<p>Marais is providing civil and structural design to assist in the restoration of École Pointe-au-Chien elementary school in Pointe-aux-Chenes, in Terrebonne Parish, Louisiana. The site consists of four buildings and walkways that connect the structures. T Marais's scope includes:</p> <ul style="list-style-type: none"> Historic Building 1: Strengthening structure for wind uplift Historic Building 2: Repair/strengthen roof, possibly some slab cuts for utilities Walkways: Repairing/replacing structure as needed based on condition Civil: Sewage treatment system repairs. 	
Completion Date (Actual or estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
Estimated 2025	N/A	\$29,000

PROJECT NO. 10		
Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
<p>Slidell Breakwater Restoration Peer Review</p> <p>Slidell, LA</p> <p>CPRA Prime - Wingate Engineers Josh Torregano 504.290.2033 josh@wingateengineers.com</p>	<p>Marais performed a peer review of plans for proposed dredging and design. We performed QA/QC for the access route plan and utilities plan.</p>	
Completion Date (Actual or estimated):	Estimated Cost:	
	Entire Project:	Work for which Firm was Responsible:
2024	N/A	\$1,000

TEC Professional Services Questionnaire

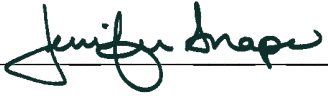
M. List all prior and/or on-going litigation between Firm and Jefferson Parish. Please attach additional pages if necessary.

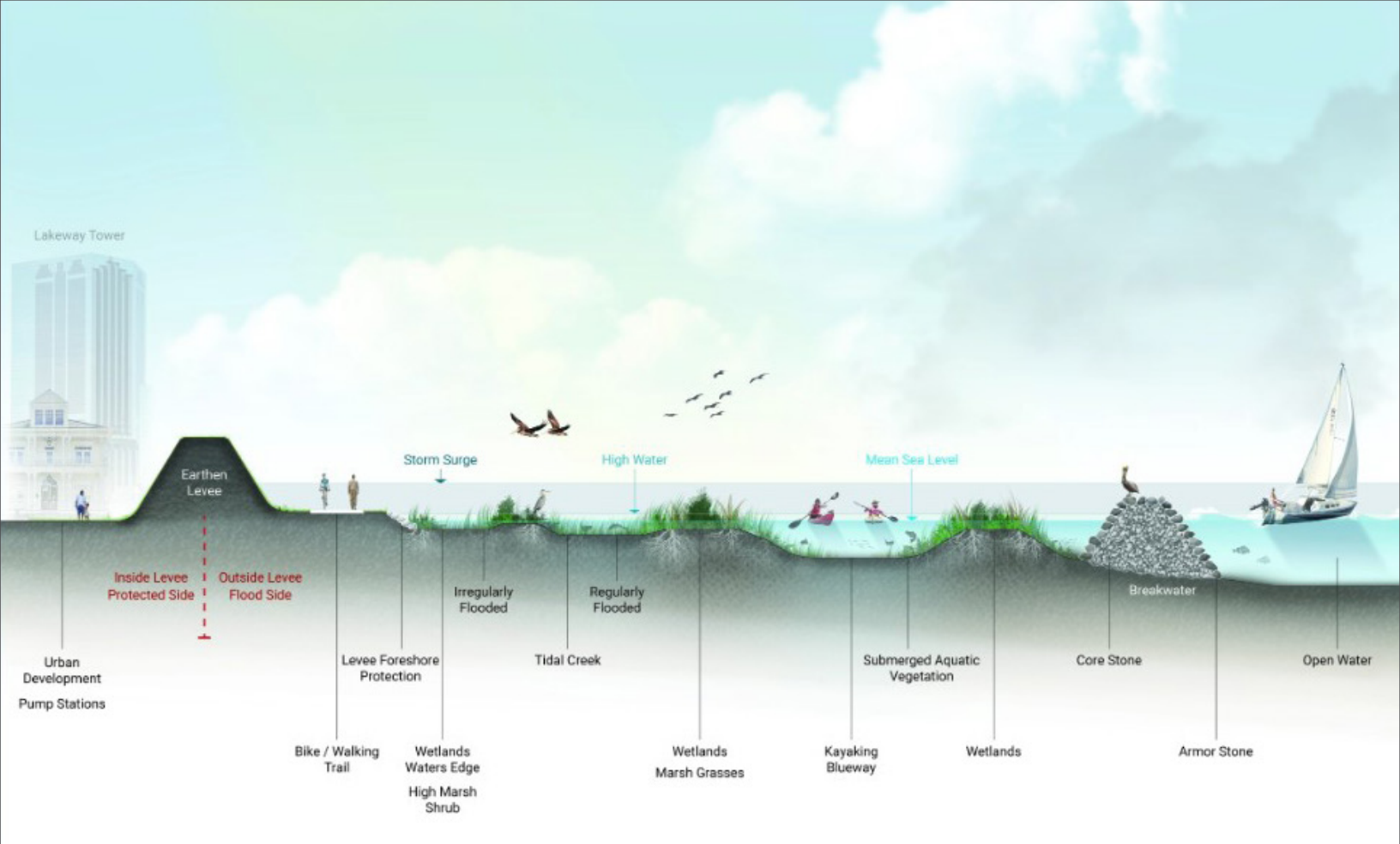
Parties:		Status/Result of Case:
Plaintiff:	Defendant:	
1. N/A		
2. N/A		
3. N/A		
4. N/A		

N. Use this space to provide any additional information or description of resources supporting Firm's qualifications for the proposed project.

Coastal engineering is one of the core services upon which Marais was founded. Our owner Jennifer and project designer Cleo have Master's Certificates in Coastal Engineering. We provide a broad spectrum of design in support of coastal projects including H&H Analysis, utilities and permitting, planning, civil design, and bidding and construction administration. Our staff have worked on coastal projects throughout southern Louisiana involving beneficial use of dredge material, living shoreline design, hydrologic and hydraulic modeling, design analysis and reports, wetland assessments, cost estimates, and opinions of probable cost. Our designs incorporate and complement the existing site features, working to enhance the project's value to its environment. As a result of our work on projects throughout the region, we have established strong working relationships with local municipalities allowing us to streamline the permitting process. We believe that quality and consistency have shaped our successful history of obtaining timely approvals for our developments. In addition, we understand and account for the variability in soil conditions in southern Louisiana by balancing the specific earthwork components encountered on each project with the project goals.

O. To the best of my knowledge, the foregoing is an accurate statement of facts.

Signature:  Print Name: Jennifer Snape
Title: Owner Date: 6/21/2024



Mission



Innovative approaches
Practical results
Outstanding service

Vision

Be the firm of choice for
clients and employees

Values



-  LEARN CONTINUOUSLY
-  ENGAGE AS FAMILY
-  ACT WITH INTEGRITY
-  DELIVER QUALITY
-  SERVE ALWAYS



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