PINE TREE WATER CONTROL DISTRICT

INTER-OFFICE CORRESPONDENCE

MEMORANDUM NO. 2026-01

To: Pine Tree Water Control District Board of Supervisors

cc: Camille Berloune, District Manager
Shawn Frankenhauser, Field Manager
Warren Craven, District Engineer
Donald J. Doody, General Counsel

From: Brian J. Sherman, General Counsel BJS

Date: January 28, 2026

Re.: Pine Tree Water Control District ("District")/ Site of Coral Springs Plane Crash

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Pursuant to the Board's request, we are providing this update as to the status of Pond 4, located at CORAL CREEK REPLAT No. 3 160-25 B DMA #4, in advance of the Board's February 12, 2026, meeting.

District staff completed the water testing at Pond 4 on January 23, 2006. The District has yet to receive any reports or results of any water testing conducted by CayJets or Great American Insurance Company or its subcontractors. Special Counsel was authorized to seek additional information from the Florida Department of Environmental Protection, and the results of the inquiry will be shared when they are provided.

Despite continued efforts to communicate with CayJets and Great American Insurance Company, neither party has provided any additional information or timeline to complete the remediation of Pond 4. As a result, the District has solicited the enclosed two quotes for consulting services, and a third quote will be provided upon receipt, for your review. The engagement of a consultant will be considered by the Board at its February 12, 2026 meeting, and is the first step towards the District undertaking the remediation of Pond 4.

We will continue to keep you updated, and please do not hesitate to contact our office anytime if you have any questions or we can provide any additional assistance.

FISHER ARNOLD

ENGINEERS | ARCHITECTS | CONSULTANTS | PLANNERS

January 8, 2026

Pine Tree Water Control District
c/o Camille Berloune, District Manager
Inframark Community Management Services
11555 Heron Bay Boulevard, Suite 201
Coral Springs, Fl 33076
Berloune.Camille@inframark.com

c/o Timothy J. Perry, Esq
Sid Bigham, Esq.
Gardner Bist King & Wood, LLP
1300 Thomaswood Drive
Tallahassee, Florida 32308
tperry@GBKWLaw.com
sid@GBKWLaw.com

RE: ENVIRONMENTAL CONSULTING SERVICES
Pine Tree Water Control District
Pond 4 Incident Site
Windsor Bay Community, Coral Springs, FL

Dear Ms. Berloune:

Fisher & Arnold, Inc (FA). is pleased to submit the following proposal for environmental consulting services related to the above-referenced site.

Fisher Arnold is a multi-disciplined environmental, engineering, surveying, architectural, planning, and design firm providing environmental expertise and experience to government, public, and private sector clients. Since the company's inception in 1986, we have grown to nearly 150 employees in nine offices and have earned a reputation throughout the United States as a leader in environmental disciplines. Our diverse environmental staff includes Professional Engineers (PE), Geologists (PG), Certified Hazardous Materials Managers (CHMM), Environmental Scientists, HazMat Surveyors, GIS/CADD Technicians, and seasoned Environmental Remediation Technicians. Professional resumes of the key staff involved in this project are included in this proposal.

FA understands that the purpose of this project is to provide environmental consulting services on behalf of the Pine Tree Water Control District (PTWCD) to review and assess work previously performed by third parties, and to assess and remediate environmental impacts, if necessary, to "Pond 4" of the Windsor Bay Community in Coral Springs, FL resulting from a recent plane crash incident on November 10, 2025.

1114 Thomasville Rd, Ste E-5
Tallahassee, FL 32303

901.748.1811 #3100
Fax: 901.748.3115
Toll Free: 1.888.583.9724

www.fisherarnold.com

FA understands that coordination with these third parties and state and local environmental regulatory agencies will be required during the performance of work for this project. Our proposed team is comprised of professionals with experience in emergency spill response, environmental remediation, and environmental resources. The following pages detail our experience and the personnel which we intend to dedicate to this proposal.

If you have any questions or need additional information regarding this proposal or about the services that we can provide, please feel free to call (850) 328-7510 or via email (listed below). A professional services agreement and labor rate schedule has been included with this submittal.

Sincerely,
FISHER & ARNOLD, INC.

Kiel T. Sims, MS, MBA
Environmental Manager
ksims@fisherarnold.com

Gene Bailey, PE
Vice President - Environmental Services
gbailey@fisherarnold.com

Pine Tree Water Control District
Environmental Consulting Services
January 8, 2026

SCOPE OF WORK

Task 1: Reports and File Review

FA will complete third party reviews of environmental reports provided to the PTWCD by third parties relevant to the above referenced incident at "Pond 4", shown in the figure included in **Attachment 1**.

The reports will be reviewed for compliance with applicable state and local regulatory standards including but not limited to Chapter 62-780, Florida Administrative Code (F.A.C.): Contaminated Site Cleanup Criteria guidelines for Emergency Response Action.

FA will review the methodology and detail of initial assessment and emergency spill response work performed at the incident site and properties adjacent to the incident site performed by third parties. If available, records, documents, and other information beyond what is provided in the reports will be reviewed.

Upon completion of the review of any third-party reports and documents, Fisher & Arnold will submit a review letter detailing any apparent state and/or local regulatory compliance issues or apparent technical insufficiencies, if any, and recommendations concerning further action at the incident site, if necessary.

Task 2: Surface Water and Sediment Assessment

FA will conduct a third-party assessment of the condition of the surface water and sediment layer within "Pond 4" as well as shoreline soils surrounding the pond through the collection of surface water and sediment samples for analysis by a state-certified laboratory.

The known potential pollutants are Aviation Gasoline (Avgas) for small piston-engine aircraft such as the Beech King Air B100 aircraft involved in the incident, as well as motor oil and hydraulic oil which are typically used in internal combustion engines and hydraulic components of aircraft such as brakes, landing gear, and flaps.

FA will conduct surface water and sediment sampling from targeted points within and around "Pond 4" in accordance with DEP-SOP-001/01- FS 2100 Surface Water Sampling and DEP-SOP-001/01- FS 4000 Sediment Sampling, respectively, to assess remaining impacts to the condition of the surface water resulting from the incident. The specific locations and number of samples will be determined based on the findings of reports provided to PTWCD by third parties from the initial assessment and emergency response efforts and any guidance from the Florida Department of Environmental Protection (FDEP) and the South Florida Water Management District (SFWMD).

Samples will be analyzed by a state-certified laboratory for contaminants identified in Tables C and D of Chapter 62-780, F.A.C. as shown in the tables below. Additional parameters may be required as incident reports and details may dictate and are not included:

TABLE C		
For Gasoline and Kerosene Analytical Groups		
Contaminants of Concern	Groundwater and Surface Water	Soil and Sediment
Benzene, Ethylbenzene, Toluene, total Xylenes, and MTBE	EPA 602, 624, 8021 or 8260	EPA 8021 or 8260
1-methylnaphthalene, 2-methylnaphthalene, and the 16 method-listed PAHs included in Table B	EPA 610 (by HPLC), 625, 8270 or 8310	EPA 8270 or 8310
1,2-dichloroethane and other listed Priority Pollutant Volatile Organic Halocarbons	EPA 601, 624, 8021 or 8260	NOT REQUIRED
1,2-dibromoethane [or EDB]	EPA 504, 504.1, 8011 or 8260 SIM	NOT REQUIRED
Lead, total	EPA 200.7, 200.8, 6010 or 6020	NOT REQUIRED
TRPHs	FL-PRO	FL-PRO

TABLE D		
For used oil, as defined in subsection 62-780.200(50), F.A.C., for identified products not listed in the Gasoline or Kerosene Analytical Groups, and for products for which the specific identity is unknown		
Contaminants of Concern	Groundwater and Surface Water	Soil and Sediment
Arsenic, total	EPA 200.7, 200.8, 6010 or 6020	EPA 6010 or 6020
Cadmium, total	EPA 200.7, 200.8, 6010 or 6020	EPA 6010 or 6020
Chromium, total	EPA 200.7, 200.8, 6010 or 6020	EPA 6010 or 6020
Lead, total	EPA 200.7, 200.8, 6010 or 6020	EPA 6010 or 6020
Priority Pollutant Volatile Organics	EPA 624 or 8260	EPA 8260
Priority Pollutant Extractable Organics	EPA 625 + 608, 625 + 8081 + 8082, 8270 + 608 (unless certified for Organochlorine Pesticides and PCBs by 8270), or 8270 + 8081 (unless certified for Organochlorine Pesticides by 8270) + 8082 (unless certified for PCBs by 8270)	EPA 8270 + 8081 (unless certified for Organochlorine Pesticides by 8270) + 8082 (unless certified for PCBs by 8270)
Nonpriority Pollutant Organics (with GC/MS peaks greater than 10 ug/L)	EPA 624 or 8260, and 625 or 8270	NOT REQUIRED
Priority Pollutant Volatile Organic Halocarbons	EPA 601, 624, 8021 or 8260	EPA 8021 or 8260
1-methylnaphthalene, 2-methylnaphthalene, and the 16 method-listed PAHs included in Table B	EPA 610 (by HPLC), 625, 8270 or 8310	EPA 8270 or 8310
PCBs	EPA 608 or 8082	EPA 8082
TRPHs	FL-PRO	FL-PRO

Task 3: Reporting

Upon completion of the work in Task 2 above and review of laboratory analytical reports, FA will complete and submit an Environmental Assessment Report to PTWCD detailing work performed, findings, and recommendations concerning further action at the incident site, if necessary. FA will also coordinate with FDEP and SFWMD should the findings of the Environmental Assessment Report necessitate the involvement of those agencies.

Cost & Schedule

Proposed costs and estimated timeframes for each phase of this project as summarized in the table are based on working assumptions and are calculated to include cost scenarios with the limited information we have at this time. The presented costs will be billed on a time and materials basis in accordance with the FA Fee Schedule included in **Attachment 2**. A retainer fee equaling 10% of the total estimated cost will be invoiced upon acceptance and execution of the Professional Services Agreement included in **Attachment 3**.

Task Description	**Estimated Cost**	**Estimated Timeframe***
Task 1: Reports and File Review	$9,375	20 business days
Task 2: Surface Water and Sediment Assessment	$40,275	20 business days from receipt of reports from third parties
Task 3: Reporting	$5,920	20 business days from completion of Task 2
Total	**$55,570**	
Retainer Fee (10%)	**$5,557**	

* The Estimated Timeframes are summarized as business days from the date of receipt of the executed contract.

ADDITIONAL SERVICES

It is recognized that additional work which is not included in the scope herein may become necessary. If at any time these services become necessary and/or the Client desires to have any of these additional services performed by FA, we can then mutually agree upon a fee for such services at the time they are deemed necessary. State or local fees, if any, are not included.

We welcome the opportunity to work on this project. Should you have any questions regarding this proposal, please contact me. The abbreviated terms and conditions statement below is followed by a signature of acceptance and authorization. Please sign, date, and return this proposal for our files and we can schedule the work at your direction.

Kiel T. Sims, MS, MBA, LEP

Environmental Manager

EDUCATION:

MASTER OF BUSINESS ADMINISTRATION - 2022
Florida State University

MASTER OF SCIENCE - OCEANOGRAPHY - AQUATIC ENVIRONMENTAL SCIENCE - 2014
Florida State University

BACHELOR OF ARTS - ENVIRONMENTAL SCIENCE & POLICY - 2011
Florida State University

TRAINING/CERTIFICATIONS:

Licensed Environmental Professional (LEP #410)

40-Hour HAZWOPER & 8-Hour HAZWOPER Refreshers

Wetlands Assessment and Delineation Training

FDEP SOP Training

FISHER ARNOLD

SUMMARY

Mr. Sims is the Environmental Manager of the Fisher Arnold office located in Tallahassee, FL. With over 15 years of experience in environmental consulting, he began his career as an Environmental Field Technician operating remediation system and conducting site assessments in 2010. He earned his Bachelor of Arts degree in Environmental Science and Policy, Master of Science degree in Oceanography - Aquatic Environmental Science, and M.B.A. from Florida State University. His education was focused on environmental contamination, aquifer hydrogeology, coastal oceanography, and Florida geology. Kiel's work specializes in environmental site assessments, soil and groundwater remediation, contamination source removal, environmental permitting, and stormwater management.

PROJECT EXPERIENCE

North Hollywood Dump Site, Memphis, TN (2024-ongoing)
Project Manager. This project involves ongoing monitoring of organophosphate pesticides and heavy metals at a former dump site. Source material was excavated from a portion of the site which now exists as a large lake adjacent to the Wolf River in Memphis, TN. The remainder of the site is under a landfill cap as an engineering control which is also monitored and maintained. FA performs annual groundwater and surface water sampling as well as triennial sediment and fish tissue sampling in accordance with a Record of Decision (ROD) issued by the EPA in 1997.

Builders FirstSource, Sarasota, FL (2023-2024)
Project Manager. Environmental Resource Permitting and Engineering project. Builders FirstSource contracted FA to assess redevelopment plans which required the modification of an existing retention pond and application for an Environmental Resource Permit (ERP) through the Southwest Florida Water Management District (SWFWMD). This project included an assessment of potential impacts related to an adjacent site with controlled groundwater contamination, development of civil engineering plans, construction plans, and permitting.

Crude Oil Refinery Release, Evergreen, AL (2022) (AOTC)
Project Manager/Field Manager. An estimated volume of 9,000 gallons of crude oil was released from a pinhole leak in the recovery piping of a saltwater oil extraction well in southern Alabama. The release occurred immediately adjacent to a creek flowing into a nearby swamp and caused approximately 6-acres of swampland to be contaminated. EPA Region 4 oversaw the emergency response and impact assessment. The project involved the direction and oversight of three emergency spill response teams. Soil in the immediate vicinity of the leak was assessed for petroleum contamination and remediated by excavation.

Patrick Space Force Base, Satellite Beach, FL (2021) (AOTC)
Project Manager. A release of Jet A fuel from an aboveground storage tank (AST) farm at Patrick Space Force Base required emergency spill response services to contain the release. Subsurface soil and groundwater sampling was performed to delineate the vertical and horizontal extent of the contamination. Forensic analysis of Total Recoverable Petroleum Hydrocarbon (TRPH) was performed on soil and groundwater samples to verify the detection of the Jet A fuel release. Remediation involved soil excavation in the vicinity of the ASTs.

Gene Bailey, PE

Vice President - Environmental

EDUCATION:

BACHELOR OF SCIENCE, CIVIL ENGINEERING - 1985
Christian Brothers University

ACTIVE REGISTRATIONS:

PROFESSIONAL ENGINEER:

AL #19173, AR #7776, FL #48012, GA #PE024091, IA #17271, IL #062048185, IN #PE11100594, KS #PE24527, KY #23329, LA #PE0026225, MI #6201062467, MS #11226, NJ #24GE03733600, OH #PE.59868, OK #17635, OR #76656PE, TN #21189, TX #82900

CERTIFICATIONS/ TRAINING:

State of Mississippi Brownfields Consultant (Professional Engineer)

Certified 40 Hr. OSHA and 8 Hr. Supervisor of Hazardous Waste Operations & Emergency Response

American Red Cross First Aid, Community CPR, and Safety

RELEVANT EXPERIENCE:

Environmental Remedial Design & Implementation

Portfolio Industrial Design

Storage Tank Management

Landfill Assessment & Closures

RCRA

CERCLA

Compliance & Permitting

FISHER ARNOLD

SUMMARY

Mr. Bailey has more than 31 years of engineering experience with a background that spans a wide range of environmental issues and activities. His responsibilities have included administrative and technical assignments for multi-disciplinary projects involving assessment, design, implementation, and contract management. His background includes projects with private and governmental sector clients. This work has required excellent technical and communication skills with agencies including numerous local and state environmental and health departments and federal agencies, to include at least two regions with the United States Environmental Protection Agency. His environmental work has included multi-task assignments in the areas of Site Assessments, Brownfields, Storage Tank Management, Asbestos Management, Site Investigations under RCRA and CERCLA, and compliance projects mandated by NEPA, RCRA, OSHA, and the Clean Water Act.

PROJECT EXPERIENCE

Memphis-Shelby County Airport Authority
Project Manager for emergency response for 10,000-gallon ethylene glycol spill into public drainage system. Services included aqueous sampling, waste profiling, communications with EPA and client along with support of client attorney. Was able to negotiate transfer of impacted stormwater to sanitary sewer. Supported client and client attorney at EPA penalty hearing and successfully limited the penalty to a Supplemental Environmental Project (SEP).

Private Manufacturing Client-Mississippi
Project Engineering Liaison for a hydrofluoric acid (HF) spill into a public drainage system. Acted as a Senior Project Engineer, overseeing disposal of impacted surface water and follow up report of project activity. Intervened for client in communications with State and local agencies. The incident incurred no penalties or notices of violation due to the prompt response of client team.

Private National Air Shipping Company
In response to an aircraft fire utilizing PFOA-PFOS containing fire fighting foam, acted as Project Engineer to support review of wipe sampling plan and implementation. Wipe sampling data was collected to determine the potential residual PFOA-PFOS remaining from the fire fighting foam. Project data supported allowing the plane to be returned to service.

Mississippi Department of Transportation
Mr. Bailey, as Project Engineer, developed a closure plan for a former wastewater lagoon to be close due to a local highway widening. The plan involved sampling, wastewater disposal, and clay soil backfill. Specifications were approved by MDOT and project completed satisfactorily to allow for the critical road widening.

City of Memphis Stormwater Compliance
Mr. Bailey managed a City of Memphis stormwater compliance project for the Federal NPDES Phase I Stormwater permit held with the Tennessee Department of Environment and Conservation (TDEC). Mr. Bailey managed dry weather drainage outfall sampling for over 100 outfalls. Data such as pH, detergent content, and flow (if any) were collected utilizing in part a Chemetrics field colormetric kit.

Dave Backus
PG, RPG, LPG, CPG

Environmental Manager

EDUCATION:
BACHELOR OF SCIENCE - GEOLOGY - 1985
University of Memphis

CERTIFICATIONS/TRAINING:
Professional Geologist, TN (2236)

Professional Geologist, AL (1635)

Professional Geologist, AR (2111)

Registered Professional Geologist, MS (0993)

Licensed Professional Geologist, IN (2636)

Certified Professional Geologist, American Institute of Professional Geologists (AIPG)

8-Hour HAZWOPER Refresher 2019

OSHA 40-Hour HAZWOPER Annual Refresher 1989-2016

Bi-Annual First Aid/CPR Training - 2016

OSHA 8-Hour Hazardous Waste Supervisor Training - 2014

NIMS/ICS-100, ICS-300, ICS-700, ICS-349 EUL Training

OSHA Competent Person for Excavations

OSHA 10-Hour Construction Safety and Health

Construction Quality Management for Contractors USACOE - 2024

PROFESSIONAL ORGANIZATIONS:
American Institute of Professional Geologists

SUMMARY
Mr. Backus has a diverse background in managing, designing, and implementing investigations and remediation techniques at uncontrolled hazardous waste sites. His background includes 35 years+ experience in emergency response, industrial services, site characterization, risk management, acquisition due diligence, litigation support, and remedial design/implementation.

Project experience includes RCRA Facility Assessments, RCRA Facility Investigations, Interim Actions, Corrective Measures Studies, Remedial Design, and Time Critical Removal Actions at NPL Sites. Mr. Backus also has experience with Emergency Response planning, sampling, and remedial activities in response to hazardous chemical releases, marine oil spills, and national disasters.

PROJECT EXPERIENCE

Emergency Response Project Experience

Train Derailment, CSX, Chunky River, Alabama (1989) (Weston)
Technical Assistance Team (TAT) member to USEPA Region 4 OSC. Submitted pollution reports, collected river water and sediment samples downstream of the diesel fuel spill from the locomotives.

Texas City Y Oil Spill, Kirby Inland Marine, Galveston, Texas (2014) (CTEH)
Field operations manager for multiple sampling teams to support the Environmental Unit Leader at a Bunker C oil spill just north of Galveston, TX. Performed marine water column and sediment sampling from Galveston Bay to Corpus Christi, TX.

Oil Pipeline Spill, Plains All American Pipeline, Gaviota, California (2015) (CTEH)
Environmental Director over team of 50 professionals conducting soil sampling, release site remediation, SCAT investigations over 35 miles of shoreline, Offshore marine environment sampling, and processed vs. naturally occurring oil forensic analysis.

Yellowstone River Oil Spill, Confidential Client, Glendive, Montana (2016) (CTEH)
Environmental Director over team of 20 professionals conducting SCAT investigations, sediment sampling, and water column sampling over 50 miles of the Yellowstone River downstream of Glendive, MT.

Crop Duster Crash Site Forensic Sampling, Chubb Insurance, McCrory, Arkansas (2016) (CTEH)
Project and Field Manager to perform forensic soil and shallow groundwater sampling at a small plane crash site outside McCrory, AR. Sample results were used to write opinion paper to allow forest crash site to be seasonally flooded for hunting lease operations.

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George Hyfantis
Ph.D., PE, CHMM

Principal and Knoxville Office Manager

EDUCATION:
Ph.D. ENVIRONMENTAL ENGINEERING - 1977
Vanderbilt University

MASTERS OF RADIATION CHEMISTRY - 1973
WestVirginia University

BACHELOR OF CHEMISTRY - 1970
Waynesburg Pennsylvania

ACTIVE REGISTRATIONS:
PROFESSIONAL ENGINEER:
Tennessee #14150
North Carolina #9928
Alabama #18620

CERTIFICATIONS
Member of the Tennessee Underground Storage Tank and Solid Waste Control Board

Certified Hazardous Materials Manager, Master Level

American Society of Civil Engineers

Editorial Advisory Board of Journal of Cleaner Production

Institute of Hazardous Materials Manager

FISHER ARNOLD

SUMMARY
Dr. Hyfantis currently serves as a Principal and Knoxville Office Manager of Fisher Arnold (FA) since 2023. He has over 45 years of experience in remedial design, remediation and spill assessment and cleanup. He provides technical oversight to FA staff as requested on difficult site assessment and remediation projects. He is a Certified Hazardous Materials Manager and is co-author of the Certified Hazardous Materials Manager's Manual's Radiation Safety Chapter (1987). His experience encompasses a wide range of environmental activities that have involved:

- RCRA Waste
- Radioactive Waste
- Radon
- PCB Contamination
- UST Remediation
- Lead Contamination
- Hazardous Materialz Management
- CERCLA (Superfund) Response and Implementation
- Chlorinated Solvent Remediation

Dr. Hyfantis has conducted extensive consulting services for Foreign Governments, U.S. Federal and State agencies, municipalities, and transit authorities, covering a broad variety of environmental concerns. At the request of the Saudi Arabian Government, he provided technical assistance and oversite for the cleanup of the major oil release to the Persian Gulf created by Saddam Hussain in the First Gulf War. Before merging his former company with Vice President of Environmental Systems Corporation, President of another international waste management company and Manager of the regional waste management program for the Tennessee Valley Authority. During his tenure with TVA, Dr. Hyfantis was the Federal on-site coordinator for emergency responses.

PREVIOUS EXPERIENCE
President, Quantum Environmental & Engineering Services, LLC, 2003-2023
Continued experience from Environmental Systems Corporation.

Vice President, Environmental Systems Corporation, 1990-2003
- Principal Corporate Engineer
- Lead professional directing response activities for emergency and interim abatement operations including 24 hour emergency response.
- Consultant on hazardous waste management to industrial clients.
- Principal Investigator, underground storage tank remedial action plan with Oak Ridge National Laboratory for tank containing radioactive wastes.
- Project Manager, development of underground storage tank management program for the Department of Navy.
- Project Manager for Voluntary Oversite Assistance Program (VOAP) for the Former Kays Ice Cream Plant in Knoxville, TN. Chlorinated groundwater contamination
- Project Manager for Former Hollis Hodgeson Superfund Landfill (also in the VOAP program) in Jefferson County, TN.

Stephen L. Stringfield, CHMM

Environmental Manager

EDUCATION:

BACHELOR OF SCIENCE - ENVIRONMENTAL SCIENCES AND ADVANCED SCIENCES - 1996
University of Saint Francis, Fort Wayne, IN

PROFESSIONAL QUALIFICATIONS:

Certified Hazardous Materials Manager (CHMM) #12142

40-Hour HAZWOPER

10-Hour OSHA Safety

SUMMARY

Mr. Stringfield's involvement in the environmental industry began with an internship at the Indiana Department of Environmental Management (IDEM) and has spanned 25 years and 10 states. His experience working for a government agency is supplemented by the diverse roles he has played in the private sector. Mr. Stringfield has hands-on experience in a variety of environmental positions ranging from performing laboratory analyses of samples, collecting samples necessary for an investigation, and executing site assessments to leading investigations and overseeing site remediation objectives for a myriad of commercial, industrial, and residential properties. He has completed dozens of Phase I Environmental Site Assessments (ESAs) on properties ranging from undeveloped agricultural land to complex chemical production facilities for several major lenders located throughout the eastern and midwestern portion of the United States. His work completed has allowed Mr. Stringfield to be exposed to variety of environmental situations ranging from minor property transactions to large scale remediation projects involving petroleum constituents, agricultural compounds, and dry-cleaning chemicals.

PROJECT EXPERIENCE

- Lead environmental scientist for the assessment and remediation of an 80-year- old bulk petroleum facility in Valparaiso, Indiana. Included the advancement/ installation of soil borings/monitoring wells for Site delineation efforts followed by the excavation and disposal of more than 10,000-tons of petroleum-affected soils. The Site was granted Unconditional Closure for the assessment/remediation work completed.
- Lead environmental scientist for the completion of 24 SPCC Plans for a major fuel provider at Sites located throughout Indiana and Michigan.
- Lead environmental scientist for the assessment and remediation of petroleum- affected subsurface media in Remington, IN. Remediation included the installation and operation of a Dual Phase Extraction (DPE) system.
- Participated in remediation of large scale chlorinated solvent-affected media at a former Alcoa facility in Richmond, Indiana. Remediation included the usage of DPE and SVE abatement technology.
- Lead environmental scientist for the assessment and remediation of chlorinated solvent-affected subsurface media (soil matrix, soil vapor and groundwater) in Flora, Indiana. Remediation included the installation and operation of a DPE system to address the known contaminant conditions.
- Oversight of UST Closure and subsequent assessment activities for City municipal power company in Frankfort, Indiana.
- Oversight for the completion of a Phase I & Phase II ESA on a bulk agricultural chemical facility in Goshen, Indiana.
- Lead environmental scientist for the in-place closure of USTs in Crawfordsville, Indiana.

FISHER ARNOLD

Deanna Delgado, PE

Environmental Engineer

EDUCATION:

BACHELOR OF SCIENCE - ENVIRONMENTAL ENGINEERING - 2019
Massachusetts Institute of Technology

ACTIVE REGISTRATIONS:

PROFESSIONAL ENGINEER:
Florida #100691

SUMMARY

Ms. Delgado is a Professional Engineer (Florida #100691) located in the Fisher Arnold Tallahassee office experienced in environmental assessment and remediation as well as water treatment. For a variety of clients, including multi-tenant residential property and car dealership sites, Ms. Delgado has assisted in the completion of environmental projects involving soil, groundwater, and surface water contamination. For a mixed-waste treatment facility, she conducted a cost estimate for the decommissioning of the plant, which included a review of closure plans, equipment inventories, and applicable regulatory sampling requirements. Deanna began the pursuit of a Ph.D. at the FAMU-FSU College of Engineering In the fall of 2025, where her research is focused on evaluating the impact of microplastics on performance and efficiency of water and wastewater treatment, and the development practical remediation solutions.

PROJECT EXPERIENCE

- Conducted a cost estimate for the decommissioning of a mixed-waste treatment facility, including review of closure plans, equipment inventories, and applicable regulatory sampling requirements.
- Stormwater compliance audits for a regional heavy equipment manufacturing and sales corporation with over 20 facilities in the state of Florida.
- Anaerobic Digester 3 Rehabilitation, Design and Construction Phase Services, Construction Documents (Revit and AutoCAD) and Technical Specifications, T.P. Smith Water Reclamation Facility, Tallahassee, FL.
- Greenville WWTF Upgrades, FDEP Grant Applications, Process Design (BioWin) and Construction Documents (Revit), Greenville, FL
- Inverness Water Master Plan, Report and System Calculations (WaterCAD), Inverness, FL
- FSH Waterline Replacement, Construction Documents (AutoCAD), FDOT Permitting, US-90, Chattahoochee, FL
- Roberts Road Onsite Modifications, Water and Sewer Plan and Profile Design (AutoCAD 3D), Fire Flow Calculations (WaterCAD), Cape Canaveral, FL

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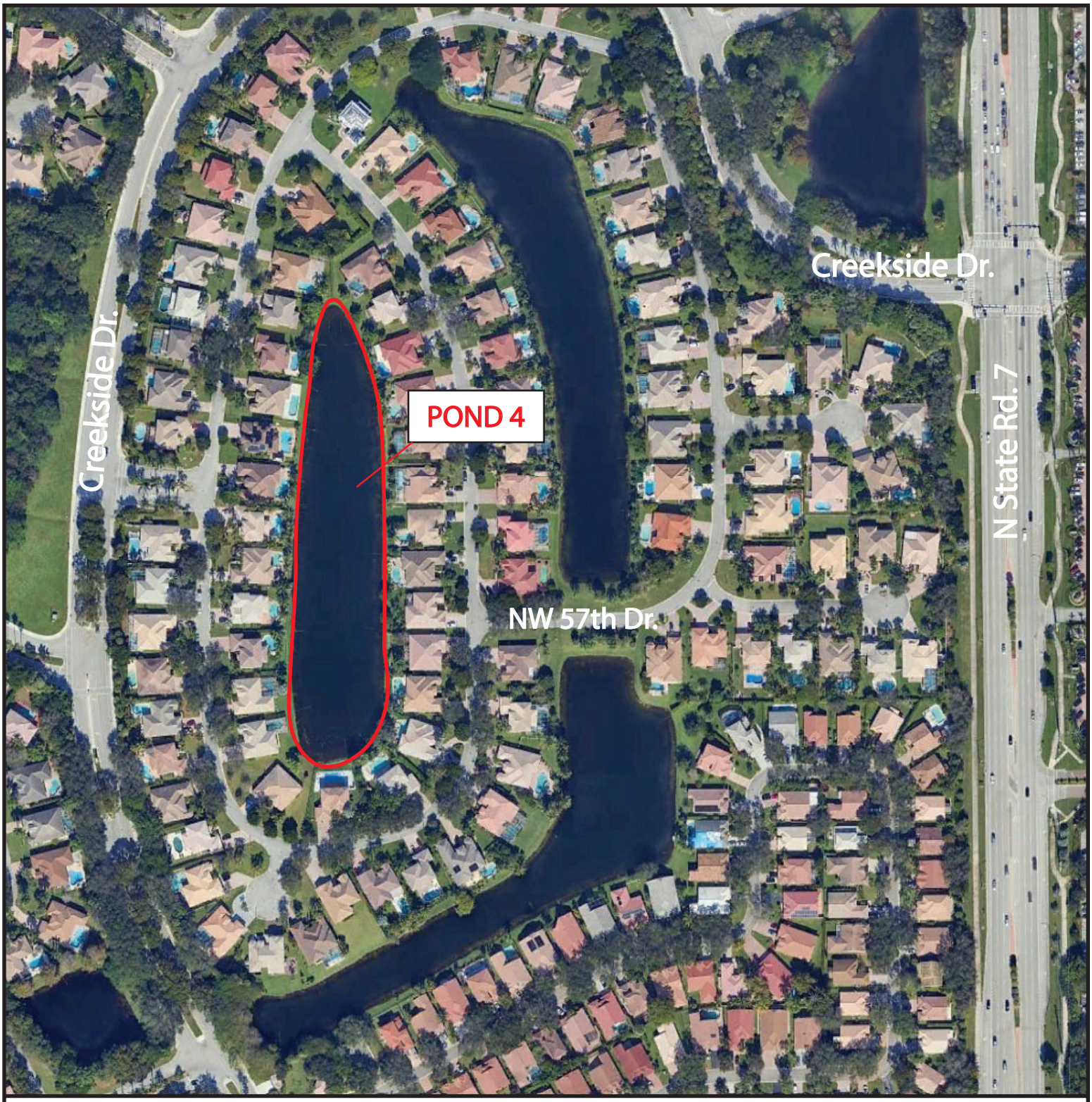
ATTACHMENT 1



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Pine Tree Water Control District
Pond 4 Incident Site
Windsor Bay Community, Coral Springs, FL

ATTACHMENT 2

FISHER ARNOLD

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Fisher Arnold - 2025 Billing Rate Schedule

Environmental Department

Personnel	Hourly Rate
Principal in Charge/CIH/CSP/PE (ES-7)	$250.00
HSE/Environmental Manager (ES-6)	$220.00
Sr. Environmental Specialist (ES-5)	$185.00
Sr. Industrial Compliance/Environmental Specialist (ES-5)	$185.00
Sr. Geologist/Project Manager (ES-4)	$155.00
CADD Designer (D-4)	$140.00
Environmental Specialist -3 (ES-3)	$135.00
Environmental Specialist -2 (ES-2)	$115.00
Technician-2 (T-2)	$105.00
Environmental Specialist -1 (ES-1)/Designer-1	$95.00
Project Administrator	$95.00
Technician (T-1)	$90.00

Other Expenses

Fisher Arnold will invoice the project related expenses incurred in processing the work such as travel, lodging, reproduction expenses, equipment rental, outside services, and other fees directly related to the project at actual cost plus 15%. The fixed rates for meals, mileage and/or specific equipment are shown below:

Per Diem Meals Current GSA Base Rates (www.gsa.gov/mie)

Mileage Current IRS Rate (https://www.irs.gov/tax-professionals/standard-mileage-rates)

Hourly rates may be adjusted annually.

9180 Crestwyn Hills Drive
Memphis, TN 38125

901.748.1811
Fax: 901.748.3115
Toll Free: 1.888.583.9724

www.fisherarnold.com

ATTACHMENT 3

AGREEMENT
BETWEEN CLIENT AND ENGINEER
FOR
PROFESSIONAL SERVICES

THIS IS AN AGREEMENT between Pine Tree Water Control District ("Client") and Fisher & Arnold, Inc. ("Engineer").

Engineer agrees to provide the services described below to Client for any project as requested by Client ("Project").

Description of Engineer's Services: **Professional services as requested by Client**

Client and Engineer further agree as follows:

1. Basic Agreement

A. Engineer shall provide, or cause to be provided, the services set forth in this Agreement, and Client shall pay Engineer for such Services as set forth in Paragraph 10.

2. Payment Procedures

A. *Preparation of Invoices.* Engineer will prepare a monthly invoice in accordance with Engineer's standard invoicing practices and submit the invoice to Client.

B. *Payment of Invoices.* Invoices are due and payable within 30 days of receipt. If Client fails to make any payment due Engineer for services and expenses within 30 days after receipt of Engineer's invoice, the amounts due Engineer will be increased at the rate of 1.0% per month (or the maximum rate of interest permitted by law, if less) from said thirtieth day. In addition, Engineer may, without liability, after giving seven days written notice to Client, suspend services under this Agreement until Engineer has been paid in full all amounts due for services, expenses, and other related charges. Payments will be credited first to interest and then to principal. In the event the account or any portion thereof remains unpaid Sixty (60) days after billing, the Client shall pay all costs of collection, including reasonable attorney's fees.

3. Additional Services

A. When authorized by the Client due to changes in the Project, Engineer shall furnish services in addition to those set forth above. Client and Engineer agree that authorization should be in writing with a mutually agreed upon estimated cost of these additional services provided by Engineer.

B. Client shall pay Engineer for such additional services as follows: For additional services of Engineer's employees engaged directly on the Project an amount equal to the cumulative hours charged to the Project by each class of Engineer's employees times standard hourly rates for each applicable billing class; plus reimbursable expenses and Engineer's consultants' charges, if any.

4. Termination

A. The obligation to provide further services under this Agreement may be terminated:

1. For cause,

a. By either party upon 30 days written notice in the event of substantial failure by the other party to perform in accordance with the Agreement's terms through no fault of the terminating party.

b. By Engineer:

(1) upon seven days written notice if Engineer believes that Engineer is being requested by Client to furnish or perform services contrary to Engineer's responsibilities as a licensed professional; or

(2) upon seven days written notice if the Engineer's services for the Project are delayed or suspended for more than 90 days for reasons beyond Engineer's control.

(3) Engineer shall have no liability to Client on account of such termination.

c. Notwithstanding the foregoing, this Agreement will not terminate as a result of a substantial failure under paragraph 4.A.1.a. if the party receiving such notice begins, within seven days of receipt of such notice, to correct its failure and proceeds diligently to cure such failure within no more than 30 days of receipt of notice; provided, however, that if and to the extent such substantial failure cannot be reasonably cured within such 30 day period, and if such party has diligently attempted to cure the same and thereafter continues diligently to cure the same, then the cure period provided for herein shall extend up to, but in no case more than, 60 days after the date of receipt of the notice.

2. For convenience, by Client effective upon 30 days written notice.

B. The terminating party under paragraphs 4.A.1. or 4.A.2. may set the effective date of termination at a time up to 30 days later than otherwise provided to allow Engineer to demobilize personnel and equipment from the Project site, to complete tasks whose value would otherwise be lost, to prepare notes as to the status of completed and uncompleted tasks, and to assemble Project materials in orderly files.

5. Governing Law and Jurisdiction

A. The Client and the Engineer agree that this Agreement and any legal actions concerning its validity, interpretation and performance shall be governed by the laws of Florida.

B. It is further agreed that any legal action between the Client and the Engineer arising out of this Agreement or the performance of the services shall be brought in a court of competent jurisdiction in Leon County, Florida.

6. Successors, Assigns, and Beneficiaries

A. Client and Engineer each is hereby bound and the partners, successors, executors, administrators, and legal representatives of Client and Engineer (and to the extent permitted by paragraph 6.B. the assigns of Client and Engineer) are hereby bound to the other party to this

Agreement and to the partners, successors, executors, administrators, and legal representatives (and said assigns) of such other party, in respect of all covenants, agreements, and obligations of this Agreement.

B. Neither Client nor Engineer may assign, sublet, or transfer any rights under or interest (including, but without limitation, moneys that are due or may become due) in this Agreement without the written consent of the other, except to the extent that any assignment, subletting, or transfer is mandated or restricted by law. Unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under this Agreement.

7. General Considerations

A. Engineer shall perform its services consistent with the professional skill and care ordinarily provided by design professionals practicing in the same or similar locality under the same or similar circumstances. Engineer shall perform its services as expeditiously as is consistent with such professional skill and care and the orderly progress of the Project. Client agrees to make no delay claim or other related claims against Engineer provided that the Engineer has exercised reasonable diligence in the execution of its services. Engineer makes no other representations and no warranties, whether express or implied, with respect to its services performed under this Agreement. Engineer disclaims any responsibility for any plans, specifications, estimates, reports, surveys, tests or other documents or instruments, or any part thereof, prepared by Contractor's or Client's separate consultants, and the Engineer's liability to Client shall be limited to those documents, information and specification prepared by and services rendered by Engineer or its employees, agents, contractors and consultants. Client further acknowledges that reports concerning concealed conditions as well as investigations depict only conditions at the specific site. Accordingly, Engineer shall not be liable or responsible for anticipating conditions that are not depicted in information furnished by the Client's separate consultants or other sources of information concerning existing conditions at the applicable Project site.

B. Engineer shall not have control over or charge of and shall not be responsible for the construction means, methods, techniques, sequences or procedures, or for the safety precautions and programs in connection with the Work, since they are solely the responsibility of others. Engineer shall not be responsible for any party's failure to perform the Work in accordance with the requirements of the Contract documents. Engineer will not have control over or charge of and will not be responsible for acts or omissions of any persons or entities performing portions of the Work.

C. Engineer neither guarantees the performance of any contractor nor assumes responsibility for any contractor's failure to furnish and perform its work in accordance with the contract between Client and such contractor.

D. Engineer shall not be responsible for the acts or omissions of any contractor, subcontractor, or supplier, or of any contractor's agents or employees or any other persons (except Engineer's own employees) at the Project site or otherwise furnishing or performing any of construction work; or for any decision made on interpretations or clarifications of the construction contract given by Client without consultation and advice of Engineer.

E. Engineer shall not be liable for equipment failures, manufacturing defects, power outages, loss of production, schedules, or other failures, nor any cost to the Client caused by circumstances related to such failures.

F. Any opinion of probable construction cost prepared by the Engineer represents the judgment of design professionals and is supplied for general guidance only. Engineer does not guarantee the accuracy of such opinions as compared to contractor bids or actual cost.

G. All design documents prepared or furnished by Engineer are instruments of service for use as intended on the Project, and Engineer retains an ownership and property interest (including the copyright and the right of reuse) in such documents, whether or not the Project is completed. Reuse of any design documents without Engineer's written permission is prohibited and shall be at the Client's sole risk without any liability or legal exposure to the Engineer. Client shall indemnify Engineer for any loss, damages, expenses or demands arising out of any reuse, alteration, or use of Engineer's Documents or work product without Engineer's involvement.

H. The Client and Engineer mutually agree, to the fullest extent permitted by law, to indemnify and hold each other harmless from any and all damages, liability or cost, including reasonable attorney's fees and costs of defense, arising from their own negligent acts, errors or omissions in the performance of their services under this Agreement, to the extent that each party is responsible for such damage, liabilities and costs on a comparative basis of fault.

I. To the fullest extent permitted by law, Engineer and Client waive consequential damages for claims, disputes or other matters in question arising out of or relating to this Agreement. This mutual waiver is applicable, without limitation, to all consequential damages due to either party's termination of this Agreement. Consequential damages include, but are not limited to, loss of profits, loss of revenues, loss of business and of business operations, reduced rental or market values, increased insurance costs, increased energy, water and other operational costs, unrealized tax incentives, credits, deductions, and/or rebates. Engineer and Client agree to require a similar provision in all contracts with contractors, subcontractors, subconsultants, vendors and other entities involved in this Project to carry out the intent of the provision, and agree that the total liability in the aggregate of the Engineer and Engineer's officers, directors, employees, agents, and independent professional associates, and any of them, to Client and any one claiming by, through or under Client, for any and all injuries, claims, losses, expenses, or damages whatsoever arising out of or in any way related to Engineer's services, the Project or this Agreement, from any cause or causes whatsoever, including but not limited to, the negligence, errors, omissions, strict liability, breach of contract, misrepresentation, or breach of warranty of Engineer's officers, directors, employees, agents or independent professional associates, or any of them, shall not exceed the total compensation received by Engineer under this Agreement.

J. If Engineer or any other party encounters an unforeseen Hazardous Environmental Condition, Engineer may, at its option and without liability for consequential or any other damages, suspend performance of services on the portion of the Project affected thereby until Client: (i) retains appropriate specialist consultants or contractors to identify and, as appropriate, abate, remediate, or remove the Hazardous Environmental Condition; and (ii) warrants that the Site is in full compliance with applicable Laws and Regulations.

8. Disputes Resolution

A. All claims, counterclaims, disputes and other matters in question between the parties hereto arising out of or relating to this Agreement or breach thereof shall be presented to non-binding mediation, subject to the parties agreeing to a mediator.

9. Total Agreement

A. This Agreement (consisting of pages 1 to 5 inclusive together with any expressly incorporated appendix) constitutes the entire agreement between Client and Engineer and supersedes all prior written or oral understandings. This Agreement may only be amended, supplemented, modified, or canceled by a duly executed written instrument.

B. Client shall indemnify Engineer of any flow-down clauses agreed to by Client in their separate agreement(s) with Owner. These flow-down clauses may include, but are not limited to, anything that may elevate the Standard of Care expressed herein, the provision of any type of warranties on work product provided by Engineer, time is of the essence clauses, liquidated damages, and duty to defend Owner from any claim brought by Client and/or a third party.

C. Appendix

1. Billing Rate Schedule

10. Payment (Lump Sum Basis or Hourly Rates Plus Reimbursable Expenses)
Using the procedures set forth in paragraph 2, Client shall pay Engineer as follows:

1. A lump sum amount for Project as mutually agreed upon and authorized by Client or

2. An amount equal to the cumulative hours charged to the Project by each class of Engineer's employees times standard hourly rates for each applicable billing class for all services performed on the Project, plus reimbursable expenses and Engineer's consultants' charges, if any.

3. Engineer's Annual Billing Rate Schedule is attached as Appendix 1.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement, the Effective Date of which shall be the later of the two signature dates below.

CLIENT:	**ENGINEER:**
By:_____	**By:**_____
Title:_____	**Title:**_____
Date Signed:_____	**Date Signed:**_____
Address for giving notices:	**Address for giving notices:**
_____	**Fisher & Arnold, Inc.**
_____	**9180 Crestwyn Hills Drive**
_____	**Memphis, TN 38125**

Revised: 01-07-2026

NovelEsolutions
Engineering | Environment | Earth

January 7, 2025

Pine Tree Water Control District

Attn: c/o Camille Berloune, District Manager
Inframark Community Management Services
11555 Heron Bay Boulevard, Suite 201
Coral Springs, Fl 33076

Re: **Consulting Services – Plane Crash Site, November 10, 2025**
Windsor Bay Community, Vicinity of 5065 NW 57th Way
Coral Springs, Broward County, Florida

Dear Ms. Berloune:

1.0 INTRODUCTION

NovelEsolutions, Inc. (NovelEsolutions) is pleased to provide this proposal to provide consulting services for the plane crash site at the above referenced address and vicinity. Our company offers a full range of turnkey environmental cleanup services utilizing innovative, but proven technologies, while maintaining a high level of client care. NovelEsolutions is a small, family-owned business offering a full range of turnkey environmental engineering and consulting services. Core services include construction and facility support services, contamination assessment and remediation, engineering, environmental compliance, hazardous waste, natural resources, occupational health and industrial hygiene, solid waste, and water resources. NovelEsolutions has been in business for 11 years completing over 250 environmental projects. Curriculum Vitae for key personnel supporting this project is provided as Attachment 1.

2.0 HISTORICAL INFORMATION

A plane crash occurred on November 10, 2025 in the Windsor Bay Community. According to news reports, the plane debris was scattered across the neighborhood with the plane debris depositing primarily in a lake managed by the Pine Tree Water Control District. Contamination is unknown at this time but may consist of fuel and oil, as well as cargo, from the plane. The insurance company for the plane owner, Great American Insurance, has been leading the emergency response to the crash along with their consultant, Cura Emergency Services.

3.0 PROPOSED SCOPE OF WORK

NovelEsolutions proposes initiating the following scope of work:

Task 001: Environmental Consulting

NovelEsolutions will provide general environmental consulting services, including the following:

- Review of Discharge Notification documents prepared by others.
- Review of regulatory correspondence including electronic mail and formal review documents prepared by State and County regulators.
- Review of analytical data provided by the client with respect to Chapter 62-777, FAC Cleanup Target Levels (CTLs), as applicable.
- Review of Emergency Response Reports, Interim Source Removal Report(s), Emergency Source Removal Report(s), and Site Assessment Report(s) prepared by others. NovelEsolutions will provide guidance on Draft and/or Final Reports with respect to compliance with Chapter 62-780, FAC Contaminated Site Cleanup Criteria.
- Coordinate with regulatory agencies, including but not limited to South Florida Water Management District (SFWMD), Florida Department of Environmental Protection (FDEP), and the Broward County Environmental Permitting Division, Environmental Assessment and Remediation (EAR) Section.

Task 002: Assessment and Remediation

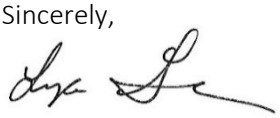
After review of the work completed to date, NovelEsolutions can prepare an estimate for additional assessment and/or remediation of impacted media including soil, sediment, groundwater and surface water. Assessment and/or remediation activities will result in additional charges.

Estimated Costs

NovelEsolutions will perform this work on a time and materials basis not-to-exceed $5,000. A copy of NovelEsolutions rate schedule is provided as Attachment 2 to this proposal. Expert Witness Testimony, should it be required, is provided at double the rate of professional staff. The scope and regulatory requirements are undefined and environmental consulting activities required may result in additional charges. NovelEsolutions will keep the client abreast of any such developments, including submittal of monthly invoices, and seek additional authorization if required.

If you have any questions, comments, or concerns, please do not hesitate to contact the undersigned. We thank you for choosing NovelEsolutions to provide services and greatly appreciate the opportunity to assist you with environmental assessment on your project.

Sincerely,



Liza Grudin, PE, ME
President | Founder | Principal Engineer

Attachments: 1. Curriculum Vitae
2. NovelEsolutions Rate Schedule

cc: Timothy J. Perry, Esq, tperry@GBKWLaw.com, Gardner Bist King & Wood, LLP, 1300 Thomaswood Drive, Tallahassee, Florida 32308
Sid Bigham, Esq., sid@GBKWLaw.com, Gardner Bist King & Wood, LLP, 1300 Thomaswood Drive, Tallahassee, Florida 32308

Attachment 1

Curriculum Vitae

NovelEsolutions
Engineering | Environment | Earth

Liza Grudin, PE, ME

President | Founder | Principal Engineer

Professional Experience

Ms. Grudin is a licensed Professional Engineer with over 25 years of permitting, management, and design experience in environmental consulting on bulk fuel facilities, retail stations, industrial and commercial properties impacted by petroleum constituents, chlorinated solvents, pesticides and metals. Ms. Grudin is adept at management of large portfolios with multiple, upper level and political stakeholders. She has provided supervisory and engineering support for large permits, remediation design, system construction, and operation and monitoring of federal and state funded, privately funded and consent order sites for multiple Fortune 500 clients.

Representative Project Experience

United States Department of Agriculture, ARS Sugarcane Field Station, Canal Point, Palm Beach County: Project Manager and Engineer-of-Record for expedited removal of two 2,000-gallon ASTs along with the containment wall and stairs. Five soil borings and one temporary monitor well were installed to assess petroleum impacts in the vicinity of the ASTs. Prior to the intrusive field activities, a site walk was conducted with key onsite staff to determine utility and other underground hazards. Electro-magnetic (EM) and Real-Time Ground Penetrating Radar (GPR) Locating equipment was employed to locate and mark all facilities in the work area. Soil samples and groundwater samples were collected pursuant to regulatory guidelines. Based on the field screening and laboratory analysis, no further assessment was requested in a formal regulatory Tank Closure Report submittal. The report was approved with no comments from the local regulatory agency.

While tank removal and assessment activities were ongoing, Ms. Grudin was spearheading the effort to get a replacement tank onsite. The Sugarcane Field Station relies on the tanks to fuel their onsite equipment. Removal of the tanks created a requirement for offsite procurement of fuel reducing site

YEARS OF EXPERIENCE: 25+

EDUCATION:
- *MS | Environmental Engineering focus on Sustainability | USF, Tampa, FL*
- *BS | Environmental Engineering | UCF, Orlando, FL*

CERTIFICATIONS | REGISTRATIONS:
- *Professional Engineer: Alabama, Delaware, Florida, Georgia, Louisiana, Mississippi, New Jersey, Texas*
- *NCEES Record Holder*
- *Envision® Sustainability Professional (ENV SP)*
- *Stormwater and Erosion Control Inspector*
- *URS Project Manager Certification*
- *Transportation Worker Identification Credential (TWIC)*

TRAINING:
- *40-Hour OSHA Health and Safety Training, Refresher Training (annually)*
- *8-Hour OSHA Site Supervisor Training*
- *8-Hour Loss Prevention System (LPS) Training*
- *American Petroleum Institute (API) Service Station Contractor Safety Key*
- *BP Safety Passport and MITT Training*
- *PSI's Phase I ESA Training*
- *Florida RNA Seminar*
- *Smith Defense Driving Course*
- *URS Defensive Driving Course*
- *URS Quality Workshop*

PRESENTATIONS | PUBLICATIONS:
- *SAME, It Takes Courage to Stay Small, November 2019, SB Conference*
- *REMTEC National Driller Workshop, March 2017, Envision™ Sonic: A Case Study Evaluation for Sustainability, Denver, CO*
- *Florida Remediation Conference, October 2015, Moderator, Sustainability Panel: Debunking the Myths of Sustainability, Orlando, FL*
- *HSE News, May 2015, PEECO: Port Everglades, Pier 1, Berths 9 and 10*
- *HCR Happenings, December 2011, Tips for a Sustainable Holiday*
- *Florida Remediation Conference, October 2011, Sustainability and Operations, Lunch Presentation, Orlando, FL*
- *BP IT Conference, May 2002, Oxygen-Injection System Operations and Lessons Learned, Naperville, IL*

AFFILIATIONS | VOLUNTEER:
- *Society of American Military Engineers (SAME) Sustaining Member, Tampa Bay and Jacksonville Posts, Membership Committee, Chair K-12 STEM Outreach Committee, 2021-2023*
- *Florida Association of Environmental Professionals (Tampa Bay Chapter), Women in STEM Committee*
- *Sustainable Remediation Forum (SURF)*
- *Land Use Appeals Board, Hillsborough County, 2016-2019*
- *Mentor, Hillsborough Education Foundation (HEF), 2015-2018*

operational efficiency. Dedicated resources to the procurement effort allowed for delivery of the replacement tank within 52 days of Notice to Proceed.

United States Veterans Administration, Bay Pines Healthcare System, St. Petersburg, Pinellas County, Florida: Engineer-of-Record and Project Manager on this 5-year, $4.16 million IDIQ covering this facility and eight other United States Veteran's Administration facilities. Under Ms. Grudin's direction, NovelE conducted assessment for three open discharges at the facility overseeing drilling and geophysical subcontractors. Assessment activities included the installation of soil borings and monitoring wells, gauging and delineation of free product, sampling of monitoring wells, and evaluation of remedial alternatives. Initial site activities for all three discharges were condensed to minimize disruptions to concurrent operations at the active VA hospital. Prior to the intrusive field activities, site walks were conducted with key onsite staff to determine utility and other underground hazards. Electro-magnetic (EM) and Real-Time Ground Penetrating Radar (GPR) Locating equipment was employed to locate and mark all facilities in the work area. Soil samples and groundwater samples were collected pursuant to regulatory guidelines. Based on the field screening and laboratory analysis, further assessment was recommended. Additional assessment is recommended to determine remedial alternatives for aggressive cleanup to bring this discharge to a No Further Action (NFA) status. Site activities were completed in accordance with The Department of Veteran's Affairs Contractor Pamphlet for Safety, Infection Prevention and Security.

Ms. Grudin is the Engineer-of-Record for modifications and updates to the existing Spill Prevention and Control and Countermeasure (SPCC) plan for the 337-acre Bay Pines VA Healthcare facility. The Environmental Protection Agency (EPA) requires commercial facilities with aboveground petroleum storage systems to maintain a SPCC plan. A SPCC plan is designed to protect public health, public welfare, and the environment from potential harmful effects of oil/petroleum discharges to navigable waters and adjoining shorelines. The five-year review conducted by NovelE provided corrections to tank information, facility locations, and updates to the overall facility infrastructure.

United States Veterans Administration, Lee County VA Clinic, Cape Coral, Lee County, Florida: Ms. Grudin is the Engineer-of-Record for modifications and updates to the existing Spill Prevention and Control and Countermeasure (SPCC) plan for this recent addition to the Bay Pines VA Healthcare system. This 5-year update included corrections to the facility map including Aboveground Storage Tank (AST) locations, oil/water separator (OWS) locations and underground storage tank (UST) labelling. The Lee County VA Clinic located in Cape Coral was opened in December 2012.

USACE, Mobile District, CCAFS Landfill Environmental Compliance, Cape Canaveral Space Force Station, FL: NovelE was hired as a subcontractor to this U.S. Army Corps of Engineers (USACE), Mobile District project to provide FY17 Landfill Compliance Services for the 45th Space Wing (45 SW) at Cape Canaveral Air Force Station (CCAFS). NovelE conducted a groundwater compliance monitoring assessment for the Cape Canaveral Air Force Station (CCAFS) landfill complex. The complex consists of closed Class I, Construction and Demolition Debris, and Asbestos landfills. The assessment was intended to assist in maintaining permit compliance and included an investigation, an optimization plan, and recommended corrective measures. Core services by NovelE included aquifer testing, development of a conceptual groundwater flow model,

3-D hydrogeologic modeling using GIS, well redevelopment and rehabilitation, well installation, groundwater sampling and design of corrective measures.

Ms. Grudin served as the Project Manager for the project working closely with the United States Air Force (USAF) and USACE to bring the landfill into compliance. Above average constituent concentrations had been reported for samples from the landfill groundwater monitoring system for the last five years. The groundwater compliance monitoring assessment was intended to evaluate the cause of the increased constituent concentrations. The assessment included a monitoring well optimization study to identify natural background concentrations, parameters exceeding background, and possible issues contributing to sample concentrations. The results of the study were used to design corrective actions for identified deficiencies and prepare recommendations to optimize the groundwater-monitoring network and monitoring program.

The assessment included a detailed hydrogeologic investigation of the entire landfill complex. A well survey was conducted and groundwater flow interpretations for the past decade revised based on the new survey data. Through historical research, an incorrect hydrogeologic evaluation by the previous consultant provided recommendation for background sampling. The groundwater flow was corrected decreasing the scope of work required for compliance. The revised groundwater flow interpretations confirmed prior historical data indicating groundwater flow beneath the landfill complex to an adjacent canal. Subsequently, the investigation focused on evaluation of the groundwater and surface water interaction and hydraulic connection.

A series of Aquifer Performance Tests (APTs) were conducted to define aquifer parameters and heterogeneity both vertically and laterally. Slug tests were performed at individual wells and multiple-well pumping tests were performed at well clusters. Long-term hydrographs were obtained from monitor wells at various depths within the surficial aquifer and from the canal at staff gauges. The collected data was used to prepare a conceptual groundwater flow model for the complex including groundwater and surface water interaction.

Existing groundwater data collected over a seven-year timeframe was utilized to calculate background concentrations to determine landfill compliance. The groundwater compliance monitoring assessment was intended to evaluate the cause of increased concentrations of Ammonia, Chloride, Sodium, and Sulfate. The assessment included a monitoring well optimization study to identify natural background concentrations, parameters exceeding background, and possible issues contributing to sample concentrations. Ms. Grudin used ProUCL 5.1.00, a statistical software for environmental applications for data sets to generate the general statistics, including average or Mean values calculated using the Kaplan-Meier (KM) method, for each well and for each of the three zones based on the corrected groundwater flow direction and evaluation of background wells. Based on the re-evaluated groundwater flow direction, historical data for the past seven (7) years was utilized by Ms. Grudin to establish background concentrations versus the installation and sampling of new wells with limited data.

This data was utilized to support an Investigation Phase Report and Optimization Plan outlining next steps for the landfill compliance. NovelE prepared an updated Work Plan prior to field activities and an Aquifer Performance Test Plan was prepared in May 2020. An Investigation Phase Report was submitted in November 2020 documenting field activities and the hydrogeological investigation of the landfill complex. USACE and the USAF are currently reviewing the Investigation Phase Report and evaluating the Optimization Plan.

USACE, Mobile District, F-22 Crash Site SS-313, Eglin Air Force Base, FL: Engineer-of-Record /Project Manager for Environmental Assessment. NovelE was hired as a named subcontractor to this U.S. Army Corps of Engineers (USACE), Mobile District project to complete a Site Assessment Report (SAR) and achieve a Remedial Action Plan (RAP). Site conditions necessitate remote parking and the use of a side-by-side mule for access. The Air Force uses this area of Eglin AFB for practice and missions related to explosives. A background check, badging, and UXO training was required for each individual allowed onsite.

The Site Assessment (SA) will fully delineate jet petroleum grade 8 (JP-8) fuel impacts resulting from the F-22 plane crash. The SA will determine the extent of the soil, sediment, groundwater, and/or surface water contamination resulting from the F-22 plane crash and consists of soil boring and well installation and environmental sampling to include surface water and sediment sampling. Ms. Grudin provided support for generation and completion of the Work Plan and coordinated the soil, sediment, groundwater, and surface water sampling to meet the Site Assessment criteria of Chapter 62-780, F.A.C. Field work commenced in October 2022 when the site was surveyed and NovelE supervised the installation of shallow monitoring wells. Soil samples were collected during the installation of the monitoring wells and submitted for laboratory analysis pursuant to the approved Work Plan. Additional fieldwork was completed in November 2022, December 2022 and March 2023. Due to quality control issues with the laboratory, Ms. Grudin had to ensure that additional sampling was undertaken to ensure the area of contamination was delineated. She negotiated with the laboratory in order to recover costs.

USACE, Louisville District, FY20 Water Quality Data, 20 Reservoirs OH, IN and KY: Liza Grudin was the Contract Manager for this fast paced project awarded just as the pandemic was closing down the United States. NovelE supported the Water Quality Team objectives of the Louisville District Water Quality Program. NovelE was contracted by the U.S. Army Corps of Engineers (USACE), Louisville District, to complete work activities consisting of four major components including scheduling, aquatic physical/chemical/biological data and sample collection, quality control. NovelE met all of the deadlines under the contract including completing all sampling 30 days prior to contract POP and invoicing monthly. This was complicated by COVID-19 related shipping restrictions, travel restrictions, and reservoir closures. Sample collection included 3,575 temperature, dissolved oxygen, and specific conductivity readings, 3,571 turbidity readings, 2,343 blue-green algae readings, 2,695 chlorophyll readings and 3,564 oxidation / reduction potential readings along with sample collection for laboratory analysis and habitat assessment on all 20 reservoirs.

NovelE's team of professional staff utilized a multiparameter sonde system to measure water temperature, specific conductivity, turbidity, oxidation reduction potential (ORP), dissolved oxygen (DO), blue green algae

(BGA) and chlorophyll and collect associated surface water samples. At reservoir sampling locations, water temperature, pH, specific conductivity, DO, turbidity, and ORP were measured at one-foot increments beginning at the surface (0') to reservoir bottoms of up to 90 feet. The water chemistry sample depth selection process was determined by characteristics of the thermocline. The thermocline is the portion of the water column through which water temperature changes greater than or equal to (≥) 1.7 degrees Celsius (°C) over a 5 foot depth or ≥ 0.34 °C over a 1 foot depth. The ability to identify the presence and extent of the thermocline throughout the water column was imperative to proper sample collection. Water chemistry samples at reservoir stations were collected at three depths: one above the thermocline (AT), one within the thermocline (MT), and one below the thermocline (BT). Data sheets to include original field readings and excel spreadsheets were delivered to the Louisville District within 3 days of sample collection.

US Air Force, Repair/Replace Fuel Tank Fill Ports Spill Prevention Devices, Patrick Air Force Base, Florida: Ms. Grudin was the Engineer-of-Record for integrity testing and closure of four (4) Spill Buckets at AAFES Gas Station on Patrick Air Force Base. Scope of services included: soil sampling, soil assessment, and regulatory reporting. All sitework was completed in accordance with Chapter 62-761, Florida Administrative Code. The Closure Report was approved by the regulatory agency with no comments.

US Air Force, Repair the Existing MOGAS AST Tank and Replace the Dispenser, Yacht Basin, Patrick Air Force Base, Florida: Ms. Grudin was the Engineer-of-Record for closure of the dispenser and integral piping followed by replacement and integrity testing. Scope of services included: soil sampling, soil assessment, and regulatory reporting. All sitework was completed in accordance with Chapter 62-762, Florida Administrative Code.

USACE, Mobile District, Tar Disposal Source Removal, Cape Canaveral Space Force Station, FL 2019-2021: Engineer-of-Record. Ms. Grudin oversaw the **environmental investigation** needed to support source removal of **waste tar/petroleum constituents** located south of Delta Operations Facility 38835 (Site DA114, Solid Waste Management Unit [SWMU] C257). NovelE provided oversight for the **excavation and disposal** of two separate contaminated areas at the site. A total of approximately **thirty-nine (39) soil samples** were collected for laboratory analysis. NovelEsolutions also prepared the **Interim Measure Report**.

United States Coast Guard Station, Fort Myers Beach, Lee County: Project manager for removal of aboveground storage tank (AST) and replacement activities. Provided oversight for all field activities, coordinated the field schedule, and completed all report documents. The scope of work included the removal, cleaning and proper disposal of a 150-gallon diesel AST providing fuel for the onsite generator. Scheduling was conducted during non-hurricane season in conjunction with USCG personnel. A 100 KW generator was rented to provide backup power in case of emergency. The existing tank slab was removed and properly disposed. A crane was utilized to set the new 250-gallon Convault AST. The scope of work also included installation of all components, and startup and load testing. All site activities were conducted within limited spacing in close proximity to the existing building and seawall.

South Florida Water Management District / Florida Department of Environmental Protection, Berry LaBelle-Congen Grove Everglades Restoration / C-43 Reservoir Project, Hendry County: In the late 1990's, Ms.

Grudin led the field team providing supervisory field management support for Phase II Environmental Site Assessment (ESA) activities on an 8,682-acre Orange Grove. She evaluated data collected each day and provided plans to sampling personnel for the next day of work using aerial maps and GPS locations along with onsite tracking of activities. She performed surface water and sediment sampling from a small boat in the industrial ponds utilized in the orange processing plant. Oversight of the field activities required constant manipulation of data, research on site operations, and coordination with the property owner and South Florida Water Management District (SFWMD) personnel. The Phase I evaluation followed by Phase II activities resulted in the identification of an onsite landfill with multiple 55-gallon drums buried in the former wetland area. The abandoned waste was properly profiled and transported offsite for disposal. This work was conducted during her tenure with URS Corporation (now AECOM).

As an SBE contractor to the South Florida Water Management District (SFWMD), NovelE was contacted to continue site activities in 2020 as the Prime Contractor. When asked to manage the formal closure of the discharges at the former maintenance area, she was elated to be brought back in on the project. The adjacent reservoir is a key restoration project for SFWMD with construction of the 170,000 acre-foot Caloosahatchee River (C-43) West Basin Storage Reservoir. This structure will help store and manage basin runoff for meeting estuary needs during the dry season. Estimated for project completion in 2020, the estimate cost is $500 million.

Liza Grudin, PE served as the Engineer-of-Record and Project Manager for this fast-tracked site rehabilitation. The historical discharges were initially funded through the Low Scored Site Initiative (LSSI) program managed by FDEP and funded through the Inland Protection Trust Fund (IPTF), then expedited through funding by the SFWMD. NovelE filed the LSSI Application with the State and managed all aspects of defining the scope of work, expediting field activities at this high profile site, and moving the site toward the needed regulatory closure. Site activities include installation of soil borings and monitoring wells with coordinated soil and groundwater sampling to investigate former underground storage tanks (USTs) and aboveground storage tanks (ASTs) at the old maintenance area of the grove.

South Florida Water Management District (SFWMD), ***Lower Kissimmee Basin Stormwater Treatment Area (LKBSTA) Phase II ESA and SLERA, Okeechobee, Florida:*** Project Manager. NovelE provided Environmental Site Assessment Services on two properties located approximately 7 miles west of Okeechobee, Florida. The two parcels have a combined land area of 3,326 acres. Ms. Grudin provided support for generation and completion of the Sampling Plan submitted by the Design Engineer and managed NovelE staffing for all soil sampling in accordance with South Florida Water Management District (SFWMD) Protocols and the approved Sampling Plan. NovelE's team collected soil samples in accordance with the Sampling Plan and District protocol. There were 3 areas of interest which included the West Property consisting of 10 subgrid (i.e., 5 point composite) samples, the Main Facilities (barn/maintenance area) consisting of 6 soil boring locations with samples from 0-6" and 6"-24" and the East Property consisting of 22 grids, and 184 subgrids (i.e., 5 point composite) samples. Sampling was conducted over a period of 3 weeks. A total of 206 soil samples were collected for analysis and submitted to Eurofins Environment Testing. An additional twenty-seven (27) samples were collected for the site-specific MS/MSD analysis. Twenty-five (25) samples were collected as duplicates and submitted to a secondary laboratory, Pace Analytical.

Former BP 24730 / Former Exxon Siffords / Verizon Wireless, Vero Beach, Florida: Engineer-of-Record /Project Manager. NovelESolutions provided environmental consulting services on this former service station recently developed as a Verizon Wireless. Liza Grudin, PE served as the Engineer-of-Record for this fast-tracked site rehabilitation in advance of site development. In April 2019, prior to site development, NovelESolutions removed three (3) 10,000-gallon underground storage tanks (UST)s storing unleaded fuel taken out of service March 2018 from the site along with three (3) dispenser islands, product transfer piping, and one 550-gallon UST. Liza Grudin, PE used her prior experience with the site dating back to 2001 to manage the multiple discharges and evaluate the site history during the assessment and remediation progress. Throughout the project, Liza determined cost allocations between FDEP funding, developer/owner costs, and items that were related to the three open insurance claims for the April 2016 discharge. After review of the insurance correspondence to the new owner, Liza identified a data gap that ultimately led to coverage of a new release on the property. Upon discovery of a new discharge, Ms. Grudin coordinated all discharge reporting, interim source removal and assessment activities and activation of the insurance claim. As a licensed water well contractor, NovelE abandoned all onsite monitoring wells in advance of site construction and demolition activities. Ms. Grudin was the Project Manager and Engineer-of-Record for the Site Assessment completed subsequent to the new discharge and Remedial Action Plan. Site assessment activities included the installation of soil borings, monitoring wells, collection of soil samples for confirmatory analysis and groundwater sampling. The remediation strategy ultimately approved by the Florida Department of Environmental Protection included installation of air sparging and soil vapor extraction wells for episodic remediation.

Siena Cove Development, former Quail Hollow Golf and Country Club, Wesley Chapel, Florida: Engineer-of-Record. Ms. Grudin conducted assessment and remediation activities at this 175-acre former golf and country club set to be redeveloped as a gated community of ±380 single-family residences. She managed the use of incremental sampling methodology (ISM) and discrete soil sampling, shallow and deep monitoring well installation, low flow groundwater sampling, and aquifer testing and modeling. Ms. Grudin formulated a plan for the remediation activities to achieve the necessary approvals from the FDEP resulting in a No Further Action (NFA) status for the property. Her approved regulatory strategy seeks an alternative closure in accordance with Risk Management Option (RMO) III, Chapter 62-780, Florida Administrative Code (FAC) using engineering and institutional controls to maintain the aggressive timeline established for this significant redevelopment project by the client. Ms. Grudin completed a statistical analysis in coordination with University of Florida to complete the ISM sampling and assessment approach. In the first of its kind analysis, Ms. Grudin extrapolated the Coefficient of Variation for replicate ISM sampling to single (r=1) and duplicate (r=2) results. This is a new approach based on FDEP statistical analysis of ISM data resulting in a more accurate determination of onsite impacts. An Upper Control Limits (UCL) was then calculated using the Interstate Technology & Regulatory Council (ITRC) “ISM UCL Calculator” or “95% UCL Calculator” from the resulting extrapolation and compared to the Soil Cleanup Target Levels (SCTLs) for arsenic and dieldrin. Ms. Grudin’s Site Management Plan (SMP) was submitted and approved to facilitate site development. A 3-dimensional surface model was created through Geographical Information Systems (GIS) analysis and tied to designated Decision Units (DUs), discrete sampling and then the grading and development plan to determine impacted volumes and assist with soil management during construction. Limited discrete data from the tees and greens was extrapolated and Liza used the Statistical Software

ProUCL 5.1.00 to develop a 95% UCL to evaluate the data for extrapolation across the site.

Gordon W. Ivey Power Plant, Homestead, Miami-Dade County: Ms. Grudin applied for and managed the NPDES permit for this municipal power plant for eight years. She coordinated with the client and FDEP on permit specifications and requirements to allow for discharge of the once through cooling water from the power plant. Ms. Grudin was also the Project Manager for the Consumptive Water Use Permit application for this municipal power plant. She negotiated with the client and SFWMD on permit specifications and requirements. A digital model was constructed to simulate the impacts on surrounding users and wetlands from the drawdown in the Biscayne aquifer at the site. Her client was granted a 20-year permit for water use in a once through cooling system for the power plant as a second permit issuance. Evaluations included use of effluent from municipal wastewater plant for the once-through cooling water. This option was excluded due to current cost but placed on the municipal planning agenda for the City of Homestead for future implementation. Ms. Grudin prepared groundwater monitoring reports for the municipal power plant. Activities included evaluation of natural attenuation indicators to provide support for bioremediation of petroleum impacts in conjunction with free product recovery efforts.

Citrus Combined Cycle Plant, Duke Energy, Crystal River, Florida: Ms. Grudin prepared the initial Best Management Practices/Pollution Prevention Plan (BMP3 Plan) for stormwater controls at this newly activated energy plant. The CCC is a natural gas-fired, combined cycle combustion turbine generator (CTG) facility with a total of 1,640 Megawatt (MW) electrical power generating capacity. Four stormwater detention ponds, surrounding the main buildings, are utilized to collect and treat stormwater runoff. An Industrial Wastewater (IWW) Percolation Pond is located northwest of the combined cycle power blocks. Process IWW is treated by an oil/water separator system prior to discharge to the percolation pond. Domestic Wastewater (DWW) is also processed and sent via sumps to the percolation pond. The IWW Percolation Pond contains an emergency overflow structure to isolated wetlands. The percolation pond is designed to contain permitted wastewater flows plus rainfall generated by a 25-year/24-hour storm event. Overall onsite activities encompass approximately 193 acres of the property with the remainder as undeveloped land. The purpose for the development of the initial BMP3 Plan was to maintain and monitor stormwater discharges at the CCC Station and minimize potential adverse impacts to the onsite and surrounding soil, surface water, groundwater, and ecosystems. This BMP3 Plan consisted of the development and implementation of best management practices, and the establishment of provisions, protocols, and responsibilities for maintaining and monitoring the stormwater at the CCC Station. Ms. Grudin was the Engineer-of-record for the BMP3 Plan and prepared training materials to accompany the new Plan.

When an additional pond was added to the system, NovelE was again contacted to update the BMP3 Plan. Ms. Grudin was the Engineer-of-record for the BMP3 Plan and prepared training materials to accompany the new Plan, including a Waste Minimization Assessment.

21st Avenue Remediation Project, Tampa, Hillsborough County: NovelE is a sub-consultant on this four-year contract with Hillsborough Area Regional Transit (HART). Liza Grudin, PE serves as the Engineer-of-Record, Remediation Lead and Sustainability Lead for the contract providing management and completion of

comprehensive environmental assessment and remediation activities. The contract, valued at over $1.7 million, is the largest procured by HART for these services. Ms. Grudin provides hand-in-hand consulting on key environmental aspects for this ISO 14001 certified facility. In this role, she works with the client reviewing third-party contractor reports and plans, and developing internal BMPs, SOPs and Work Instructions for HART procedures. HART provided Ms. Grudin with Proxy access and a physical desk in their Ybor office to facilitate these efforts.

Ms. Grudin completed a cumulative site history for the facility's operations dating back to 1983 identifying discharges and related closures and allowing for identification of "phantom" wells at the site for use in assessment or abandonment. The site history is also being utilized to track eligible and non-eligible discharges in coordination with the Environmental Protection Commission of Hillsborough County (EPCHC). Assessment and remediation activities to date include soil boring and monitor well installation and abandonment, soil and groundwater sampling, closure of an onsite oil/water separator, and free product identification and recovery. One of three primary Areas of Concern (AOCs) has been closed via a Site Rehabilitation Completion Order (SRCO). Based on the comprehensive file review, an error was found on the regulatory document summarizing closure requirements and detailing the conditions of the closure. EPCHC is currently reviewing procedures to re-issue the SRCO correctly. Ms. Grudin provides overall sustainability management of the project developing Work Plans in coordination with the Prime Contractor, EPCHC, and the client, HART. Advance work planning allows for streamlined site assessments with a reduced environmental footprint. A streamlined life cycle assessment approach is utilized.

Documents drafts completed to date include a Spill Prevention Countermeasure and Control (SPCC) Plan, a Stormwater Pollution Prevention Plan (SWPPP), a Waste Management Plan, a Spill Response Plan, a Waste Minimization and Recycling Objectives, Targets and Programs Action Plan, and Tank Inspection SOP. Ms. Grudin updated Tank Inspection forms to meet the requirements of the Local Compliance authority when the existing forms were deemed non-compliant. She then collected input from staff on the use and implementation of the forms followed by training for Facilities Maintenance staff. Additional forms drafted by Ms. Grudin include an updated HART Spill Report Form and RCRA Weekly Inspection Log.

After a January 2017 discharge of approximately 500 gallons of diesel fuel at the facility, NovelE provided initial consulting for regulatory discharge reporting compliance and emergency source removal activities. NovelE personnel conducted a third-party audit of the discharge leading the interviews, root cause analysis, and compiling the Corrective Action Analysis Report. NovelE is currently working with HART's Maintenance Facilities Department, Environmental Department, and Procurement and Contracts Administration Department to evaluate the corrective actions for implementation. Additionally, NovelE worked with the Procurement and Contracts Administration Department to update the Fuel Delivery Standard Operating Procedure (SOP) and Diesel Fuel Delivery Work Instructions (WIs) documents HART uses routinely to aid in spill prevention.

Ms. Grudin acted as the Team Leader for an in-house Environmental Compliance Audit conducted for the Maintenance Facility including the heavy maintenance, preventative maintenance, and bus washing areas. A comprehensive checklist was utilized for the audit and then reported during HART's ISO 14001 formal

annual audit. Since the audits, NovelE has been working directly with HART staff to implement corrective actions related to the Opportunities for Improvement (OFIs) identified.

Ms. Grudin reviewed HART-owned properties for compliance with regulatory requirements including Environmental Resource Permitting. HART properties have various forms of ownership and legal responsibilities. Ms. Grudin identifies potential issues through file reviews, interviews and consultation with regulatory agencies, and review of HART's internal files. NovelE staff works directly with HART's Environmental, Facilities Maintenance, and Project Management Office conducting meetings with former consultants, Hillsborough County and the Southwest Florida Water Management District (SWFWMD) as needed to facilitate the process and work on getting each of the properties into regulatory compliance. Additionally, NovelE works with the Prime Contractor on permitting issues and submittals related to the HART properties.

Baycare Winter Haven Hospital, Winterhaven, Florida: Professional Engineer. NovelE prepared a Spill Prevention, Control and Countermeasure (SPCC) Plan for Winter Haven Hospital. Ms. Grudin prepared the SPCC Plan in accordance with currently accepted hydrologic and engineering practices. The plan was completed to meet the requirements of 40 CFR, Part 112 in accordance with good engineering practices, including consideration of applicable industry standards. The SPCC identified areas of potential discharge of oil products, recommended preventative measures to avoid potential discharges, and provided instruction in the event of an accidental release. After a site discharge entering into a neighboring lake, NovelE drafted Construction Plan for a barrier wall to meet the terms of the Consent Order issued by FDEP. Ms. Grudin acted as the Project Manager and performed PE oversight of the barrier wall installation.

Baycare Women's Hospital, Winterhaven, Florida: Professional Engineer. NovelE provided a Spill Prevention, Control and Countermeasure (SPCC) Plan for Baycare Women's Hospital. Ms. Grudin prepared the SPCC Plan in accordance with currently accepted hydrologic and engineering practices. The plan was completed to meet the requirements of 40 CFR, Part 112 in accordance with good engineering practices, including consideration of applicable industry standard. The SPCC identified areas of potential discharge of oil and oil products, recommended preventative measures to avoid potential discharges, and provided instruction in the event of an accidental release.

Orange County Public Schools C204-AE-N-7, Orlando, Florida: Ms. Grudin served as the Engineer-of-Record for the project. Ms. Grudin prepared the plan and supervised the rmoveal of three (3) Underground Storage Tanks (USTs) then prepared an Environmental Tank Closure Report . The USTs removed included one steel, single-walled, 3,000-gallon UST, one steel, single-walled, 2,000-gallon UST, and one steel, single-walled 1,000-gallon UST. The scope of work managed by Ms. Grudin included soil assessment including field screening with an organic vapor analyzer (OVA) and collection of samples for laboratory analysis after soil excavation.

South Florida Water Management District (SFWMD) C-139 Plane Crash, South Bay, Florida: Ms. Grudin was the Engineer-of-Record / Project Manager. A 1969 Beech 95B55 aircraft attempted to land in an open field at the SFWMD C-139 property. The privately owned and operated aircraft sustained substantial damage

during the forced landing upon impact with the canal; passengers sustained minor injuries. The Interim Source Removal was conducted in accordance with Chapter 62-780.525, Florida Administrative Code (FAC) to address the cleanup of the de minimis petroleum discharges pursuant to Chapter 62-780.560, FAC. To expedite cleanup and minimize contaminant distribution, NovelE completed the initial field activities within 7 working days of Notice to Proceed (NTP). Based on visual observations of a soft landing by a privately-owned aircraft, it was suspected that leaking lubrication oil and aviation fuel may have impacted site soil. As such, this contract required expedited investigation of petroleum-impacted soil. NovelE screened soils with an organic vapor analyzer (OVA), directing removal of impacted soils through soil excavation, and conducted confirmatory sampling with submittal of the samples to a Florida Department of Environmental Protection (FDEP) approved laboratory. NovelE arranged for disposal of the investigative derived waste (IDW) by a licensed Transport and Disposal company. An Interim Source Removal Report was submitted on August 9, 2019 to the FDEP South District office. The report was approved with no comments. The discharge was granted a NFA with issuance of a SRCO.

City of Tampa Fair Oaks Community Park Expansion (multiple contracts), Tampa, Hillsborough County, Florida: Ms. Grudin was the Engineer-of-Record / Project Manager. NovelE conducted a Phase I ESA on two properties, a combination of four parcels, on E Caracas Street. A Phase I ESA and Limited Phase II ESA including industrial hygiene sampling was conducted on a third property, two parcels on N 34th Street. These parcels were acquired by the City to expand the Fair Oaks Community Park. Based on identified RECs, NovelE developed a Site Conceptual Model and conducted a limited Phase II ESA. The Phase II ESA process was expedited to meet the closing timeframe outlined by the City of Tampa. Soil sampling was conducted in accordance with all applicable FDEP SOPs. Soil samples were compared to the State of Florida Cleanup Target Levels (Soil Cleanup Target Levels (SCTLs)). NovelE provided expedited results of the Phase I and Phase II ESA allowing the City to make crucial decisions on property acquisition.

City of Tampa 1529 West LaSalle Street Property Environmental Assessment Services, Tampa, Hillsborough County, Florida: Ms. Grudin was the Engineer-of-Record / Project Manager. Scope of services included creating a Conceptual Model based upon historical research of environmental reports at 1529 La Salle Street property and nearby properties: Former ICS East located at 1301 North Rome Avenue & 1533 West Arch Street, Former ICS West located at 1204 North Rome Avenue, 1701 & 1703 West Nassau Street, Tarpon Chemical and Supply Company located at 1527 La Salle Street (listed as a separate regulatory reference), and West Arch Street located at 1701 West Arch Street. This Conceptual Model was utilized to provide support to the environmental attorney contracted by the City. Historical research indicated that impacts from offsite properties were the primary source of contaminants on the City property. A cost estimate for additional assessment and remediation was prepared for the City attorney to use in soliciting funding from the offsite property owners. Additional work to include assessment and / or remediation is pending.

Port Everglades, Pier 1, Berths 12 and 13, Hollywood, Broward County: Ms. Grudin was the Project Manager and Engineer of Record for environmental petroleum cleanup activities for the Port Everglades Environmental Corporation (PEECO) from May 2011 through December 2014. Environmental issues associated with the common area are coordinated by PEECO. PEECO is a non-profit organization, comprised

of the terminal property owners at the Port (e.g., Chevron, Motiva, TransMontaigne, etc.), acting as the primary contact for historical petroleum releases at the common areas of Port Everglades. The common area is described as Berths 1 through 27 and the pipeline rights-of-way from the common berths to individual company property lines. PEECO works closely with the property owner's representatives, the Broward County Port Everglades Department, and the regulatory lead, FDEP, for this high-profile site. Staff from Broward County Environmental Protection and Growth Management Department provide oversight for field activities at a local level.

Two free product recovery systems were installed and began operation in 2008. Product recovery at Berth 12 and 13 was ongoing with a total of thirty-six recovery wells equipped with QED Passive Skimmers. The Selective Oil Skimmers (SOS) recovery product utilizing two Ingersoll Rand air compressors and seven QED programmable air controllers housed in two equipment buildings rated for Class 1, Division II conditions. Ms. Grudin was instrumental in equipment modifications to the systems increasing free product recovery and decreasing water intake. Aging Passive Skimmers (SPG) were identified as a source of water and replaced with onsite SOS skimmers in key wells to increase free product capture. Ms. Grudin obtained funding from FDEP to double the frequency of maintenance visits in order to protect the inland waterways.

Port Everglades, Slip 2 Assessment, Fort Lauderdale, Broward County: Ms. Grudin conducted a preliminary investigation of the proposed excavation area at Slip 2 for the presence of petroleum-impacted soils. The initial Slip 2 Lengthening, proposed under the Port Everglades Master/Vision Plan, included lengthening approximately one-half of the slip width by 250 feet. Working with the Port Everglades Department of Broward County and her client, PEECO, a larger area was evaluated for environmental impacts and the anticipated lengthening was widened to include the entire slip width allowing for the berthing of more vessels and increased revenues by Broward County. Ms. Grudin worked closely with the Assistant to the Port Director, Port staff, and ongoing concurrent operations at Slip 2 to minimize impacts to ongoing Port operations and keep a tight project schedule.

Pier 1, Pier 2, Slip 1, Fort Lauderdale and Hollywood, Broward County: At the request of the Port Everglades Department of Broward County, remediation systems formerly utilized to collect free product on Piers 1 and 2 and Slip 1 were abandoned utilizing funding provided by FDEP and PEECO in a cost share agreement under the Preapproved Advanced Cleanup Program (PAC). Thirty-five remediation wells were abandoned pursuant to SFWMD guidelines, removed entirely, and then backfilled to Port Engineering requirements with pumpable, excavatable, flowable fill. Existing, non-operable lines for the former remediation systems were vacuum extracted to remove product and capped in place. Ms. Grudin coordinated with Port personnel and each individual stakeholder representing the major oil companies that work at the Port to determine the scope of work. The scope of work was modified on an ongoing basis to meet the needs and requirements of each stakeholder. Decommissioning activities also included the removal of system equipment, compound fencing, traffic bollards and concrete pads as indicated and approved by Port personnel.

In preparation for future free product recovery efforts in advance of the sea wall construction activities, five remediation well locations were excavated to the water table and left open for a minimum of 48 hours.

Maintenance-of-Traffic (MOT) requirements were discussed and arranged in advance for these locations. Locations were selected to minimize impacts to concurrent operations at the Port; however, due to 24-7-365 work activities on the Port extreme care was taken to protect staff from the open excavations. Data collected from these locations was utilized to determine future locations for recovery at Berths 9 and 10 (see below).

Port Everglades, Pier 1, Berths 9 and 10, Hollywood, Broward County: Ms. Grudin designed a recovery system with underground free product recovery trenches utilizing Large Diameter Filter Scavengers for free product recovery at Pier 1, Berths 9 and 10. Free product recovery was implemented in anticipation of the slip-widening and sea wall construction activities proposed under Broward County's Port Everglades Master/Vision Plan with funding provided by the FDEP Free Product Recovery Initiative (FPRI). Ms. Grudin worked closely with the Licensed General Contractor to develop the scope of work and methodology for free product recovery, which is currently ongoing prior to projected Port Everglades expansion activities. Reducing the contaminant mass will assist in maintaining the Broward County's project schedules and reduce worker health and safety exposure issues during construction activities. With the limited timeframe available for free product removal and high priority for Port expansion projects, fast-tracking conception and implementation was of great importance. Ms. Grudin worked closely with the site owner's representative, the Assistant to the Port Director, responsible parties, client and funding agency to meet their distinct and individual cleanup and construction requirements. Due to the high profile of this facility, the Director of the Division of Waste Management of FDEP, Jorge Caspary, took the lead in initial planning, strategizing and approval of funding for this project. Various options, including open and closed trenches utilizing Large Diameter Filter Scavengers with conventional electric or solar options were considered and negotiated between Broward County Port personnel, PEECO, and the FDEP. Solar options were ultimately ruled out due to the high cost of retrofitting the panel's inverter to accommodate the Class 1, Division 2 requirements on the Pier for explosion-proof (XP) rated components.
Due to the aforementioned constraints and limited regulatory timeframe, Ms. Grudin worked closely with the licensed General Contractor and the FDEP site manager, Mr. Matt McCoy, to effectively negotiate approximately $680,000 in contracts in a few weeks timeframe. Ms. Grudin worked with Port personnel and the licensed General Contractor to obtain permits from the City of Hollywood in an expedited manner. Prior to construction, her team met with each of the major oil companies with pipelines in the area of construction to review the Ground Penetrating Radar (GPR) markings and update maps with current and strategic pipeline data. During construction activities, Ms. Grudin worked with the Construction Manager, Project Foreman, and Assistant to the Port Director to maintain the project schedule under unique site conditions. Construction activities took place in a secure area of the Pier where bulk fuel is offloaded. As ships enter Port waters and take berth, site activities were limited and dependent upon the owner of the vessel in Port. Since ship schedules changed hourly, a dynamic scope of work was required wherein the crew maintained flexibility and handled changes in a professional and innovative manner. Ultimately, the work was completed ahead of schedule and below the anticipated budget.

As a further complication to the project scope, fuel distribution lines from six major oil companies at Pier 1 run underground to each of the individual terminal property boundaries. During excavation of the free product recovery trenches, soil was removed in one-foot lifts and utility locating equipment was utilized

between lifts to screen the trench limits. Fuel pipelines were safely exposed as necessary to maintain safe working conditions for construction and Port personnel and to protect the environment from petroleum releases. Since free product often uses these utility corridors as preferential pathways, it was important to keep the recovery trenches in close proximity to the underground lines and easements, while maintaining strict health and safety regulations. Based upon the success of the design and implementation of this free product recovery system, FDEP is evaluating Ms. Grudin's design for use on other sites within the Port.

Berths 16 through 18, Hollywood, Broward County: The last full assessment of the Port Everglades Common Areas occurred in the mid-1990's. During discussions regarding the Pier 1 Port expansion activities, the Director of the Division of Waste Management expressed concern over the lack of recent data. Ms. Grudin provided a list of potential areas for current assessment to PEECO and the Assistant to the Port Director. At the latter's request, investigations were initiated along the pier of Berths 16 through 18. Existing monitor wells installed in the initial assessment were located and free product measurements were collected. Due to several layers of paving activities, five wells were located at an approximate depth of 5 inches below grade. These damaged monitor wells were repaired as needed. Soil boring locations were evaluated based on historical maps from the original Contamination Assessment Report, using Google Maps and current Port maps to determine matching areas of former free product. These maps were then compared to current pipeline drawings to evaluate safe areas for the installations. Approximately twenty soil borings were installed to evaluate the extent of current free product in this area of the Port. Access to this secure area was obtained and arranged around cruise terminal entry, loading and departure.

Port Everglades, Fort Lauderdale and Hollywood, Broward County: Project manager providing for a detailed scope of services on the Geographic Information System (GIS) mapping project for Port Everglades. Ms. Grudin worked with the multiple entities representing PEECO and Port Everglades Department of Broward County personnel to create a one-of-a-kind interactive map. Utilizing ArcMap 10.0 in conjunction with Adobe Illustrator, an interactive map of the Port Everglades Common Areas was prepared. The map allows for a user-friendly format capable of display of its layers in any combination, all together, and in any order. The layers represented include historical petroleum impacts including free product, contaminated soils and dissolved phase constituents, current free product plumes, and footprints of Port development projects. Port Everglades Department of Broward County, PEECO and FDEP will utilize the GIS map to plan remediation efforts in advance of Port expansion under the Port Everglades Master / Vision Plan and provide information to Contractors with proposed construction activities at the Port including existing and proposed underground utilities and pipelines.

Motiva Port Tampa Terminal, Tampa, Hillsborough County: Consultant to Motiva for implementation of a risk assessment at the Motiva Terminal at Port Tampa. Ms. Grudin acted as client liaison for review of reports and provided guidance to their contracted consulting firm, Groundwater and Environmental Services, Inc. (GES), on the required fieldwork and reporting procedures. She attended site walkthroughs and client meetings to educate the contracted consulting firm on risk based closure options. Ms. Grudin was recommended for this role through the upper management and technical teams of BP due to her expertise in risk management regulations in the State of Florida.

Motiva Port Everglades South Terminal and Motiva Port Everglades East Terminal, Fort Lauderdale and Hollywood, Broward County: Ms. Grudin acted as the consultant to Motiva for implementation of risk assessments at the two Shell Terminals at Port Everglades. She provided client support for review of reports, and guidance to their contracted firm, GES, on the required fieldwork and reporting procedures. Ms. Grudin provided consultation on the Site Rehabilitation Funding Agreement (SRFA) applicability to risk based closure and the guidelines for the application. She conducted a review of the Risk Assessment Justification (RA/J) for the PEECO Common Areas as it applied to individual terminal operations and facilities. Ms. Grudin provided guidance to Motiva regarding risk assessment protocols pursuant to the established RA/J, which she later used as a framework for future negotiations with FDEP and the Port on behalf of PEECO (see above).

Port of Tampa, BP Terminal, Tampa, Hillsborough County: As Southwest Area Manager, Ms. Grudin was the Project Manager for emergency response, source removal and assessment activities for two petroleum releases at the active BP Terminal. Initial remedial actions included soil excavation and vacuum extraction of soils and product. Both discharges were granted a No Further Action without Conditions status once site assessment and additional excavation of petroleum-impacted soils was completed.

Regulatory review conducted by Hillsborough County Environmental Protection Commission (EPC) revealed two ineligible discharges with the potential for Consent Order issues at the terminal facility. One old ineligible discharge was evaluated under the Risk Assessment criteria at the BP Terminal. Although Hillsborough County had not adopted rules under former code Chapter 62-770.650 Risk Assessment, Ms. Grudin sought permission from the FDEP and was granted its use as applicable for this discharge. It was agreed that upon completion of passive free product recovery, one year of monitoring would be conducted to evaluate the site under Level II Risk Management Options. After considerable regulatory negotiations, the second ineligible discharge at the BP Terminal was granted No Further Assessment status based upon a commingled plume with an eligible discharge.
As the Engineer of Record, Ms. Grudin certified the Release Prevention Barrier utilized for secondary containment for regulatory compliance under Chapter 62-762, FAC.

Former BP Terminal, Tampa, Hillsborough County: Ms. Grudin coordinated the site assessment for BP Oil Company's terminal closure at Port Tampa, including tank removal, cone penetrometer testing, soil boring and monitor well installation, and groundwater sampling. She prepared the Tank Closure Report for closure of aboveground storage tanks (ASTs), underground storage tanks (USTs), and oil / water separators and submittal to the regulatory agency. Ms. Grudin performed an Exposure Assessment for the BP Oil Company terminal subsequent to closure activities. She implemented Risk-based Corrective Action (RBCA) evaluations using the client's proprietary guidance manual and standard practices and procedures for site characterization, exposure assessments, and risk assessment evaluations, which required a thorough knowledge of the ASTM tiered risk assessment approach, Environmental Protection Agency (EPA) Risk Assessment Guidance for Superfund Sites, and the FDEP RBCA Program. She assisted with general cleanup of the facility in conjunction with evaluation of divestment options.

Fruitville Brownfields Area, Sarasota, Sarasota County: Ms. Grudin conducted operations, maintenance, and troubleshooting evaluations on groundwater and soil remediation systems for a Brownfields site in Sarasota County contaminated with chlorinated solvents. The two dual phase remediation systems were designed with a packed stripping tower and low profile air stripper, respectively, to remediate tetrachloroethylene (PCE), trichloroethene (TCE), 1,2-dichloroethylene (1,2-DCE), and vinyl chloride. Ms. Grudin conducted groundwater sampling activities inside the active commercial building on a quarterly basis. She later installed an AS curtain just above the clay layer to prevent migration of contaminants onto adjacent properties. The Brownfields site is currently developed with a Lowe's Plaza and Harley Davidson retail establishment.

Lift Station 53 Upgrade, West Palm Beach, Palm Beach County, Florida: Ms. Grudin provided all environmental permitting services including Water Use, Environmental Resource and Industrial Wastewater permitting. Liza developed all Best Management Practices (BMPs) and corresponding documents for the permitting and associated construction activities. The site was located in a residential community in close proximity to private property. The existing collection system was continuously receiving sewer flows, which was continuously and reliably bypassed for the duration of construction.

Siena Cove Development, former Quail Hollow Golf Course, Wesley Chapel, Pasco County, FL: Ms. Grudin is the Engineer-of-record for environmental assessment and remediation activities at this 175-acre former golf and country club set to be redeveloped as a gated community of ±380 single-family residences. She provides project management and technical support for her team activities including the use of incremental sampling methodology (ISM) and discrete soil sampling, shallow and deep monitoring well installation, low flow groundwater sampling, and aquifer testing and modeling.

Ms. Grudin formulated a plan for the remediation activities with an ultimate goal to achieve the necessary approvals from the FDEP resulting in a No Further Action (NFA) status for the property. Her approved regulatory strategy seeks an alternative closure in accordance with Risk Management Option (RMO) III, Chapter 62-780, Florida Administrative Code (FAC) using engineering and institutional controls to maintain the aggressive timeline established for this significant redevelopment project by the client. Soil management options include soil blending, capping under roadways, alternative Soil Cleanup Target Levels (aSCTLs) for parks/recreational areas, and utilization of two feet of clean fill as an engineering control in conjunction with the existing grading plan. Groundwater remediation options include utilization of planned drainage structures for hydraulic control, soil amendments and natural attenuation monitoring combined with deed restrictions.

Ms. Grudin completed a statistical analysis in coordination with the University of Florida to complete the ISM sampling and assessment approach. In the first of its kind analysis, Ms. Grudin extrapolated the Coefficient of Variation for replicate ISM sampling to single (r=1) and duplicate (r=2) results. This is a new approach based on FDEP statistical analysis of ISM data resulting in a more accurate determination of onsite impacts. A UCL was then calculated using the Interstate Technology & Regulatory Council (ITRC) "ISM UCL Calculator" or "95% UCL Calculator" from the resulting extrapolation and compared to the Soil Cleanup Target Levels (SCTLs) for arsenic and dieldrin.

Ms. Grudin's Conceptual Remedial Action Plan and the Soil Management Plan (SMP) were submitted and approved to facilitate site development. The SMP outlined a strategy to include the following: management of ~34,000 yd^3 of contaminated soils onsite, soil blending/mixing followed by characterization as Restricted or Unrestricted Fill and use of aSCTLs for soil management on non-residential areas. A 3-dimensional surface model was created through Geographical Information Systems (GIS) analysis and tied to designated DUs, discrete sampling and then the grading and development plan to determine impacted volumes and assist with soil management during construction. Limited discrete data from the tees and greens was extrapolated across the site and Ms. Grudin used the Statistical Software ProUCL 5.1.00 to develop a 95% Upper confidence Level (UCL) to evaluate the data for extrapolation across the site. For areas with Restricted Fill, an Engineering Control and Maintenance Plan (ECMP) will be put in place in conjunction with engineering and institutional controls outlining restrictions on disturbance of soil and use of parks/recreational areas as residential.

Private Client Former Gas Station, Phase II Environmental Site Assessment, Pinellas County, Florida: Ms. Grudin was the Project Manager and Environmental Professional for this fast tracked due diligence project. She conducted the Phase I site walk and Phase II Environmental Site Assessment (ESA) on this former retail gasoline station property. Preliminary information during the Phase I ESA process started in accordance with ASTM E1527-13 identified Recognized Environmental Conditions (RECs) and a Site Conceptual Model was developed. Ms. Grudin recommended that a limited Phase II ESA be conducted. The Phase II ESA process was expedited to meet the closing timeframe. Pursuant to the model, NovelE supervised the installation of fourteen (14) soil borings and collection of three (3) soil samples and three (3) groundwater samples. Soil and groundwater sampling were conducted in accordance with all applicable FDEP Standard Operating Procedures (SOPs).

Beverage Station, Fort Pierce, Florida. Project Manager and Engineer of Record for environmental cleanup of this retail petroleum station with petroleum-impacted soil and groundwater above the State Cleanup Target Levels eligible for funding under the Petroleum Restoration Program (PRP). Engineer of Record for Remedial Action Plan Modification (RAPM) designing air sparging (AS) and soil vapor extraction (SVE) system with National Pollutant Discharge Elimination System (NPDES) permitting. Ms. Grudin was responsible for negotiations with the FDEP to enlarge the original system design completed by a previous consulting firm. A shallow clay layer at the site was not taken into account during the original design and the well spacing did not conform to the Remedial Action Initiative (RAI) requirements. The number of AS wells was increased by approximately 120 percent in the RAPM submittal. Ms. Grudin developed the construction drawings and provided oversight to the in-house construction crew certifying that the methodology and construction met the permitted drawings with as-built documentation. This project required permitting with the North St Lucie Water Control District, coordination with the District consultant AECOM, and FDEP for access and groundwater discharge under the NPDES permit. Ms. Grudin provided engineering support to the Fort Pierce Utilities Authority and licensed electrician to provide underground power from across a neighboring street to the remediation system trailer. Project manager and engineer of record for continued operation and maintenance (O&M) pursuant to the approved RAPM.

Days Inn, Altamonte Springs, Seminole County: Liza Grudin, PE serves as the Engineer-of-Record providing comprehensive environmental consulting activities for the site. Petroleum impacts at the site have migrated through the adjacent roadway and onto a neighboring commercial parcel currently operating as a hotel. Two chase pipes with eight (8) remediation lines currently cross Wymore Road from a previous remediation system. The engineer-of-record for this project contacted FDOT to determine the schedule for roadwork and let all involved parties including FDOT, Seminole County, and the contractors, SGL and RS&H, Inc., know that two chase pipes currently cross Wymore Road and contain remediation piping. Updated CAD files were requested, and assessment activities were also coordinated with the road closure. Key contacts in this process included Seminole County, the COS Roadway Compliance Engineer for the I-4 Ultimate Project, the I-4 Ultimate Construction Program Manager for FDOT, SGL Constructors Area 4 Project Manager, Project Utilities Coordinator, and Utility Relocation Manager, the Transportation Engineer for RS&H, Inc.

During this timeframe, Ms. Grudin was also working on remediating the petroleum impacts onsite and developing a plan for future remediation in the roadway and offsite. Historically, a remediation system utilizing air sparging combined with soil vapor extraction (AS/SVE) and groundwater recovery was operated onsite from May 2009 to July 2013. Due to several factors including a high design AS flow rate, improper sizing of the SVE system, and inadequate spacing of the remediation wells, the remediation system was ineffective in remediating the site. A modification to the remedial design was requested by NovelE to address the petroleum-impacted soil and groundwater remaining at the site. Based on assessment activities conducted to date and the large design ROI from the original RAP and RAPM documents, pockets of petroleum impacts may remain not illustrated fully by the monitoring well layout, spacing and well locations. A Level 2 Remedial Action Plan Modification (RAPM) was submitted to the local program, Orange County Environmental Protection Division, and approved with no comments. The Level 2 RAPM recommended limited remediation in the source area while roadway activities were ongoing.

Monthly episodic events are used to evaluate the feasibility and effectiveness of AS/SVE technology at the site. Based upon initial screening of site conditions, AS/SVE was determined to be an effective remediation method for contaminated groundwater due to the lack of free product, unconfined aquifer, anticipated soil permeability, and biodegradability of the petroleum constituents. The episodic events provide data for the design of the site-specific, full-scale remediation system. The objective is to evaluate the proper installation depth of future air sparging wells, minimum radial influence of each AS and SVE remediation well, and design air flow rate and pressure for each technology. The episodic data will be utilized to optimize the efficiency of future system operation and design.

P&B Sales & Service, Brooksville, Hernando County: Liza Grudin, PE serves as the Engineer-of-Record providing management and completion of comprehensive environmental assessment and remediation activities for the facility. The lithology in Hernando County, especially Brooksville, is variable consisting of a tight formation of clays and clayey sands. This type of lithology is typically difficult to remediate, and site-specific conditions should be taken into account whenever possible. In addition, the presence of the abandoned in place underground storage tanks (USTs) factors into the radius of influence, flow rate and

ultimate vacuum required for remediation. For these reasons, NovelE recommended that a pilot test be conducted at the site to determine the feasibility of multi-phase extraction.

Ms. Grudin prepared a signed and sealed Pilot Test Plan outlining the proposed testing of a multi-phase extraction system (MPE), which was approved by the Pinellas County Health Department with no comments. Although MPE is particularly effective in low permeability soils, it was expected that some areas of petroleum-impacted soil and groundwater may not be effectively remediated with this technology. The pilot test confirmed that the radius of influence for the system was limited to the underground storage tank (UST) area and surrounding non-native lithology. A Pilot Test Report was submitted summarizing the site activities and recommendations and approved with no regulatory comments.

Liza Grudin, PE prepared a Level 2 Remedial Action Plan (RAP) for site cleanup in accordance with Chapter 62-780, Florida Administrative Code (FAC). The proposed remedial action for the site included extraction of groundwater and vapors from three (3) vertical dual phase wells across the site (DP-1 through DP-3); treatment of the extracted soil vapor stream with vapor phase granular activated carbon (GAC); and treatment of the extracted groundwater with an air stripper prior to onsite disposal to an infiltration gallery. The RAP was approved by the Pinellas County Department of Health with no comments. Construction Drawings were prepared by NovelE in sufficient detail to be used for bidding of the construction and installation portion of the project. The Construction Drawings were submitted to the Pinellas County Department of Health and approved with no comments.

Liza Grudin, PE, worked with the University of South Florida's Green Engineering Spring 2017 semester class on a volunteer basis. NovelE provided technical information to the undergraduate team for evaluation of bioremediation design options. The opportunity provided a chance for the team to learn the difference between the classroom setting and a real-world application for their remediation solutions. The USF Team presented a remediation strategy of phytoremediation as the preferred option for cleanup.

Interim Energy Operating, LLC, Formerly Sample Road Marathon, Pompano Beach, Broward County: Ms. Grudin was the Project Manager and Engineer of Record for environmental cleanup activities at this active retail gasoline station eligible for funding under the PRP. She began work on this project at the close of active remediation via an AS and SVE system. Upon completion of full-scale remediation, polynuclear aromatic hydrocarbons (PAHs) remained in one well on the northern property boundary. Ms. Grudin implemented a limited Remedial Action Plan (RAP) for episodic AS and initiated long-term post remediation monitoring of key site monitor wells. Constituents of concern rebounded above the Natural Attenuation Default Concentrations (NADCs) for volatile organic compounds (VOCs), such as benzene, in shallow and vertical extent wells. Ms. Grudin elevated the level of concern citing the possibility of offsite impacts and noting the presence of three Large Public Supply Wells, withdrawing greater than 150,000 gallons per day (gpd), within approximately 1,122 feet of the site. Ms. Grudin worked hand in hand with the local Broward County Environmental Protection and Growth Management Department representatives to obtain over $24,000 in funding from FDEP for additional assessment, offsite notifications, and a Remedial Action Plan Modification (RAPM) report submittal. This funding allocation was obtained during transitioning of the FDEP PreApproval Program to the Petroleum Restoration Program, requiring the signature of both the

Bureau Chief and Division of Waste Management Director, and therefore additional historical research, documentation and liaison was required.

119th St, Miami, Miami-Dade County: Ms. Grudin was the Project Manager and Engineer of Record for environmental cleanup activities at this active retail gasoline station. She managed this project from the Remedial Action Construction (RAC) phase to the Post Active Remediation Monitoring (PARM) phase. The approved RAP completed by a previous consultant for AS combined with SVE was modified by Ms. Grudin during preparation of the Construction Drawings. Ms. Grudin obtained the construction permits, provided engineering oversight of the construction activities and prepared the as-built documentation for this facility. When issues arose with permitting in Dade County, she worked with the inspector and licensed electrical subcontractor by attending person-to-person meetings to resolve issues with the electrical drawings submitted for permitting. The remediation system operated for one year bringing the site below the Florida State Criteria, Groundwater Cleanup Target Levels (GCTLs) specified in Chapter 62-777, FAC, for constituents of concern including the traditionally difficult to remediate contaminant isopropylbezene.

Private Golf Course Maintenance Facility, Boca Raton, Palm Beach County: Ms. Grudin was the site safety office and Project Manager responsible for assessment and monitoring of this approximate one-acre former golf course maintenance area with arsenic-impacted soil and groundwater. Comprehensive investigations for pesticides, herbicides and associated arsenics were conducted to assess soil and groundwater horizontally and vertically. She coordinated access to the adjacent property and provided oversight for night drilling on the Putting Greens and Fairways of one of the nation's largest private residential country club golf courses. Sampling of monitor wells was complicated by the active golf course with some wells located in and adjacent to Water Hazards.

Grand Isles I & II, Punta Gorda, Lee County: Ms. Grudin was the Project Manager for the discharge reporting, assessment and site closure activities related to the discharge of diesel fuel from an onsite 1,000-gallon diesel Convault aboveground storage tank (AST) associated with the fuel system for a generator. Major stakeholders included Prosperity Point Gateway Management Board of Directors and personnel, Lee County, FDEP South District, and Charlotte County. Regulatory interpretation was required to determine the agency responsible for direction of cleanup activities as neither Lee, nor Charlotte County sought involvement in the discharge reporting or closure. The initial evaluation projected the removal of one 55-gallon drum of petroleum-impacted soils, which soon escalated to the excavation and proper transportation and disposal of 101.41 tons of soils and vacuum extraction of 510 gallons of light non-aqueous phase liquids (LNAPL). Demolition activities included the removal of the fuel room wall, diesel AST and a 6' by 12' hole in the fuel room floor. Confirmatory soil and groundwater analysis was below the respective cleanup target levels and the site was issued a Site Rehabilitation Completion Order without comments or the need for further monitoring.

Phase I and Phase II Environmental Site Assessments, Multiple sites: Ms. Grudin has performed numerous Phase I and Phase II ESAs of industrial manufacturing and commercial parcels, residential developments, vacant parcels, and undeveloped hunting and agricultural parcels. ESAs were conducted in general conformance with the current ASTM Standard E1527, E2247, and commercial lending guidelines. Major

clients include government agencies, financial institutions, insurance companies, law firms, property management companies, and a variety of industrial and commercial companies. Limited and full scope Phase I and/or Phase II ESAs were conducted in Orange, Seminole, Lee, Dade, Broward, Brevard, St. John's, Flagler, Lake, Polk, Volusia, and Palm Beach counties. She has performed ESAs for greater than one thousand acre properties in Hendry, Collier, Osceola, and Flagler counties for private clients, SFWMD and SJWMD. A few sites outlining the scope and breadth of Phase I/II ESA work are provided below for reference:

City of Tampa Due Diligence, Phase I and Phase II ESA, Hillsborough County: Ms. Grudin was the Environmental Professional and Project Manager for this fast tracked due diligence project. She conducted a Phase I Environmental Site Assessment (ESA) on this 0.68-acre property originally developed in the 1940's. Due to an expedited timeframe for closing on the property, the Phase I site walk was conducted on the same day as the Purchase Order (PO) was issued by the client, the City of Tampa. Preliminary information gathered during the Phase I ESA process started in accordance with ASTM E1527-13 identified Recognized Environmental Conditions (RECs) to include the following: A dry cleaning facility located in the southern portion of the site at 102 E Fortune Street in 1969; an Auto Repair Service facility, Accurate Crankshaft located in the southern portion of the site at 114 E Fortune Street in 1949; and a Sign Painting Service on the west side of the property.

Based on identified RECs, NovelE developed a Site Conceptual Model and recommended that a limited Phase II ESA be conducted. The Phase II ESA process was expedited to meet the closing timeframe outlined by the City of Tampa. Phase II ESA field activities were completed within two (2) business days of the PO issuance. Pursuant to the model, NovelE supervised the installation of thirteen (13) soil borings and collection of six (6) soil samples and five (5) groundwater samples. Soil and groundwater sampling were conducted in accordance with all applicable FDEP Standard Operating Procedures (SOPs). Within six (6) business days of the Purchase Order, NovelE provided an Executive Summary summarizing the results of the Phase I and Phase II ESA to the City of Tampa team allowing for the property to close on time. Based on the results of the Phase II ESA, installation of a permanent monitoring well was recommended to provide a more definitive evaluation of groundwater quality in this area. Additional assessment is pending.

Habitat for Humanity Due Diligence, Phase I and Limited Phase II Environmental Site Assessment (ESA), Ybor Lots, Hillsborough County: Ms. Grudin was the Engineer-of-Record / Project Manager on this due diligence project. She conducted a Phase I and Limited Phase II Environmental Site Assessment (ESA) on this 0.5-acre property in Tampa, Florida. Information gathered during the Phase I ESA process in accordance with ASTM E1527-21 identified a historical pumphouse located on the Subject Property which was evident on the Sanborn Maps of 1931 and 1950. Historical pumphouses utilized oil and an oil storage tank may have been located on the Subject Property. Based on the aerial photographs, the pumphouse located on the northwest corner of the Subject Property appeared to have been removed in 1984 and was considered a REC to the Subject Property. Based on the identified REC, Ms. Grudin developed a conceptual model for the site and a Phase II ESA along with delineation via assessment was conducted. Petroleum-impacted soil and groundwater impacts were identified during the assessment activities at the Subject Property.

Habitat for Humanity Due Diligence, Phase I ESA, S 78th Street, Hillsborough County: Ms. Grudin was the Engineer-of-Record / Project Manager on this due diligence project. She conducted the Phase I ESA according to ASTM E1527-21. She identified a historical auto repair shop as a REC to the Subject Property. The auto garage is listed in the EDR database as a historical auto repair shop located on the Subject Property in 1971. It is common knowledge that past environmental operations of auto repair shops circa 1970 were not stringent and potential discharges may have occurred during operations. In addition, historical aquaculture activities were apparent approximately 280 feet to the east-southeast from 1965 to 1991. Aquaculture activities are known to make use of fertilizers, pesticides and can result in elevated Escherichia coli in the groundwater. The Subject Property is downgradient of the historical aquaculture activities therefore this was considered a REC to the Subject Property. Based on the identified RECs, Ms. Grudin performed a Limited Phase II ESA. Ms. Grudin developed the site conceptual model and soil and groundwater sampling was completed on the subject property. Based on the limited Phase II ESA soil and groundwater sampling concentrations of the targeted parameters met the State Soil Cleanup Target Levels (SCTLs). Therefore, soil and groundwater impacts were not encountered at the Subject Property.

Catholic Charities Due Diligence, Phase I ESA, Ruskin: Ms. Grudin was the Engineer-of-Record / Project Manager on this due diligence project. She conducted a Phase I and Limited Phase II ESA on this 2.3-acre property in Ruskin, Florida. Information gathered during the Phase I ESA process in accordance with ASTM E1527-21 identified the historical use of the site for agricultural activities from 1948 through 1957. Agricultural activities typically included the usage of herbicides, pesticides, and soil fumigants, therefore it is possible that the surficial soil and possibly the groundwater have been impacted by this former use and is considered a REC for the subject property. In addition, former activities also included a car wash and use of borrow or fill material from an unknown source that was utilized to backfill the swimming pool associated with the property. Based on the identified RECs, Ms. Grudin developed a conceptual model for the site and recommended that a limited Phase II ESA be conducted. Based on the limited Phase II ESA soil and groundwater sampling, soil and groundwater impacts were encountered from the RECs identified at the Subject Property.

Catholic Charities Due Diligence, Phase I ESA, Pinellas Park: Ms. Grudin was the Engineer-of-Record / Project Manager on this due diligence project which was undertaken in accordance with ASTM E1527-21. The Subject Property consisted of multiple apartments and storage sheds. Four 5-gallon and two 2-gallon gasoline containers were observed in a storage container for use as fuel for the lawnmowers. Staining was observed on the floor of the storage container and due to the unknown extent of contamination, Ms. Grudin recommended performing a Limited Phase II ESA to address the RECs revealed.

Twin Eagles Phases I, II, III and IV, Naples, Collier County: This 2,334-acre parcel consisted of developed land and undeveloped land. The developed land consisted of a golf course and single family homes and lots. Based on Ms. Grudin's large parcel experience, she directed the Phase I ESA scope and breadth for a project manager at her Fortune 500 firm. Investigations included a flyover of the subject property due to dense vegetation. A commercial helicopter was chartered to further search the property for solid waste dumping and debris. Phase II activities were not recommended for this subject property.

Micco Dairy Cattle Dipping Vat (CDV), Okeechobee County: Ms. Grudin evaluated conditional closure/risk based options for this cattle dipping vat utilizing deed restrictions, current site conditions, and future site use. She was responsible for the overall approach and the individual groundwater modeling conducted as part of the report submittal. The No Further Action with Conditions proposal was conducted using the Groundwater Natural Attenuation Model (GNAM), part of the Natural Attenuation Toolkit for the Florida Petroleum Cleanup Program (the RNA Tool Kit). GNAM is a groundwater transport model adapted, with permission, from BIOSCREEN, a simple screening tool for natural attenuation in groundwater. BIOSCREEN and GNAM are based on the Domenico analytical solute transport model and can simulate advection, dispersion, adsorption, and aerobic decay as well as anaerobic reactions. Ms. Grudin gathered site-specific data through aquifer testing, analysis of hydrologic processes and laboratory analysis, technical papers and engineering literature, then modeled the information utilizing the Domenico Model. Using the Kissimmee River as a point of compliance, fate and transport for 4,4-DDD, 4,4-DDD, alpha-BHC, beta-BHC, delta-BHC, and gamma-BHC constituents were modeled. Based on the GNAM results, it was determined that concentrations of 4,4-DDD and 4,4-DDE would not migrate to the Kissimmee River in excess of the Surface Water Criteria (Chapter 62-302.530, F.A.C.) for the 1,000-year, steady state, modeled timeframe. Additionally, it was determined that concentrations of each BHC constituent observed in groundwater at these locations would not migrate to the Kissimmee River in excess of their FDEP Groundwater Cleanup Target Levels (Chapter 62-777, Florida Administrative Code (F.A.C.) or Surface Water Criteria (Chapter 62-302.530, F.A.C.) for the 1,000-year, steady state, modeled timeframe. Based on a first order decay rate, alpha-BHC would meet the GCTL at the source area within the first 100-year timeframe. Based on a first order decay rate, beta-BHC would meet the GCTL at the source area at a timeframe between 100 and 200 years.

Crew Lands – Tract No. 004-037, Collier County: Ms. Grudin assisted with proposal preparation and field coordination of technicians and subcontractors for assessment activities including: a soil vapor survey and soil boring and monitor well installation in conjunction with soil and groundwater analysis of petroleum constituents, metals, pesticides, and herbicides. Ms. Grudin collected two sediment samples on the south side of the canal for profiling and analysis of pesticides by EPA Method 8081, Polynuclear Aromatic Hydrocarbons (PAHs) by EPA Method 8100, and for total and dissolved arsenic. Removal of an onsite cattle dipping vat was conducted through excavation. Upon completion, a 5,000-gallon above ground storage tank (AST) was erected complete with a geotextile base and interior liner for containment of groundwater removed from the vat area. Ms. Grudin supervised recovery of approximately 4,000 gallons of groundwater recovered from a 15-foot deep recovery well installed in the vicinity of the cattle dip vat. Ms. Grudin compiled the assessment data referenced above and wrote the Corrective Action Report recommending monitoring of alpha-BHC, beta-BHC, 4,4-DDD, 4,4-DDT and total and dissolved arsenic in groundwater. Concentrations of contaminants of potential concern (COPCs) in the surficial, surface and subsurface soils met the Residential Restricted I Direct Exposure and Leachability based on Groundwater Criteria Soil Cleanup Target Levels (SCTLs) for the COPCs.

Sarasota Commons, Sarasota, Sarasota County: Ms. Grudin was the Project Manager for this active dry cleaning facility. She provided oversight of one of the first well installations with a sonic drilling rig in the State of Florida to investigate the vertical extent of volatile organic halogens (VOHs) in groundwater

beneath this dry cleaning site. Ms. Grudin conducted O&M, provided oversight for monitor well abandonment activities, and compiled reports documenting field activities for regulatory submittal. She compiled data and performed modeling to request No Further Action (NFA) with Conditions for chlorinated solvents using a modified BIOCHLOR software program. Ms. Grudin evaluated conditional closure/risk based options for this dry cleaning site utilizing deed restrictions, current site conditions, and future site use. She was responsible for the overall approach and the individual groundwater modeling conducted as part of the report submittal. Ms. Grudin gathered site-specific data through analysis of hydrologic processes and laboratory analysis, then modeled the information utilizing the Domenico Models.

Petroleum Stations, Multiple sites: From 1998 to 2011, Ms. Grudin provided support to the BP contract as Staff Engineer, Project Engineer, and Senior Project and Area Manager for the Southwest Florida Division of BP. Ms. Grudin was responsible for project management of BP-owned and divested properties where BP retained their environmental liability. Her team of staff worked on over one hundred sites during this timeframe. A few sites outlining the scope and breadth of BP work are provided below for reference:

Former Amoco 146, Sarasota, Sarasota County: Project manager for closure and removal of three 10,000-gallon underground storage tanks (USTs) and dispensers in conjunction with site remediation activities. Ms. Grudin negotiated with Sarasota County Department of Health to fund UST removal through the FDEP Petroleum PreApproval Program (PAP). The USTs were put out of service and the product was removed, the interior of tanks were cleaned using a pressure washer, and the tanks were inerted with dry ice to removed explosive gases. The lower explosive limit (LEL) and percent oxygen were monitored closely with an explosimeter periodically throughout the duration of the removal. The tanks were rendered useless by cutting holes in each end and upon County inspection were loaded onto a truck and transported offsite for proper disposal. All tanks and product pipe removal activities were performed in accordance with standards set forth in the American Petroleum Institute recommended practices and Chapter 62-761, FAC. Approximately 751.35 tons of petroleum-impacted soils was removed and transported offsite for proper disposal. Prior to backfilling, pen-hole sparging was conducted through the installation of eight wells installed at approximate 20-foot centers in the excavation over a 5-day period. Remediation activities resulted in the site entering the monitoring only phase.

Former Amoco 2093, Sanford, Seminole County: Ms. Grudin was the Project Manager responsible for implementation, permitting, construction, O&M, and reporting for environmental petroleum remediation at this Former Amoco site. Due to offsite impacts, angled AS wells were installed under the roadway, remediation points were required in the median of Lake Mary Boulevard, and remediation points and angled AS wells were installed on an offsite property utilized as a shopping plaza. A total of two remediation systems utilizing AS and SVE were installed connecting the remediation points. An existing 8-inch conduit was located in the field and utilized to provide a tie in for the median remediation wells. Due to the high level of traffic in the roadway, three weeks of construction was conducted at night with lane closures and appropriate MOT. Ms. Grudin worked with staff to maintain a high level of safety and address fatigue concerns associated with prolonged night work. All Florida Department of Transportation (FDOT) requirements were completed successfully, including implementation of the MOT, compaction testing of soils and replacement of the entire median, neighboring sidewalk and driveway. Ms. Grudin worked closely

with the licensed General Contractor, Engineer of Record, Seminole County, the responsible party, BP, and each of the site owners to minimize impacts to vehicular and pedestrian traffic on the CVS Pharmacy property, within the FDOT right-of-way, and on the adjacent shopping center parking lot. During construction, a high water table was encountered on the offsite property. Since this condition was not anticipated, construction activities were modified to account for floating piping and health and safety issues with the standing water. A remediation trailer capable of handling the additional water was located, exchanged for the originally slated equipment, and mobilized to the site. SVE wells were modified to dual phase wells in the field with the approval of Seminole County. A NPDES permit was obtained and the effluent was routed to a storm sewer with the associated and required tie-in.

Former Amoco 6221, Tampa, Florida. Ms. Grudin was the Project Manager for site assessment, pilot testing and RAP submittals. She prepared the construction drawings and provided construction oversight for the installation of an AS and SVE system, groundwater and soil remediation system for BP. Ms. Grudin oversaw the construction of the remediation system installation by an in-house construction crew assuring that the construction activities met the engineering requirements outlined in the permitted construction drawings. She was the Project manager and engineering support for O&M and associated groundwater monitoring.

Former BP 24573, LaBelle, Hendry County: Ms. Grudin managed cleanup activities at this site from assessment through site closure. She provided oversight for the installation of soil boring and monitor wells for horizontal and vertical assessment of petroleum impacts. She also provided oversight for the system design, drilling of remediation wells, pilot testing of a dual phase extraction technology utilizing field measurements and a data logger, and construction activities. She utilized geotechnical sampling results and the Florida RNA software for a fate and transport study and to develop site-specific alternate Soil Cleanup Target Levels (aSCTLs) for soil. When the effectiveness of the dual phase system diminished, angled AS wells were installed in the right-of-way to address impacts under State Road 80 that remained after historical road widening. Site cleanup progressed smoothly from this point allowing for issuance of a Site Rehabilitation Completion Order (SRCO).

BP 24657, Panama City, Bay County: Ms. Grudin performed vapor intrusion sampling for petroleum and related constituents in accordance with BP standard practices and procedures. She developed a site-specific protocol for vapor implant installation and sampling techniques. She conducted risk analysis through the use of the BP Risc software to evaluate site-specific hazards and potential pathways based on laboratory analytical results for this site. Ms. Grudin performed quarterly and semi-annual groundwater monitoring at this facility as part of a privately funded environmental investigation and mitigation effort by BP. Upon the discovery of chlorinated solvents at the facility, Ms. Grudin negotiated the terms and implementation of a Consent Order between BP and the Northwest District of FDEP. The source of chlorinated solvents was determined to be a Kerosene Heating Oil UST located onsite. Since the constituents of concern in groundwater are not associated with kerosene storage, the lines were traced ultimately revealing that solvents utilized in the service bay of the facility were drained into piping that led to this UST. Conditions of the Consent Order were maintained during the site investigation and ultimate closure.

Former BP 24694, Silver Springs, Marion County: Ms. Grudin managed cleanup activities at this site from assessment through site closure. She provided oversight for drilling, construction and site closure activities. She conducted a root cause analysis for utility line damage during site activities and obtained state funding for the damage once the analysis revealed that all site activities were conducted in accordance with Occupational Safety and Health Administration (OSHA) regulations and standard construction practices. Once asymptotic results were realized from the initial AS and SVE system, Ms. Grudin negotiated funding for additional assessment activities inside of the service station and discovered a residual source of petroleum-impacted soils. A modified remediation system was installed, and site closure was achieved.

Former BP 24730 / Former Exxon Siffords / Verizon Wireless, Vero Beach, Indian River County, Florida: Ms. Grudin provides environmental consulting services on this former service station recently developed as a Verizon Wireless. Key stakeholders include the Florida Department of Environmental Protection (FDEP) and Brevard County Natural Resources Management Department for the eligible discharge and the Crum & Forster insurance company and their consultant Vertex Companies, Inc for covered releases. The stakeholders also include the former property owner, developer/owner and Verizon Wireless. Liza Grudin, PE serves as the Engineer-of-Record for this fast-tracked site rehabilitation in advance of site development. In April 2019 prior to site development, three (3) 10,000-gallon underground storage tanks (UST)s storing unleaded fuel taken out of service March 2018 were removed from the site along with three (3) dispenser islands, product transfer piping, and one 550-gallon UST. NovelE prepared the scope of services for the removal of the USTs, dispenser islands, and associated piping. The scope of services for construction and tank removal was prepared with sufficient detail to provide for fair and competitive bids from licensed Pollutant Storage System Contractors (PSSCs). All tank removal activities were performed in accordance with standards set forth in the American Petroleum. Institute (API) recommended practices and Chapter 62-761, FAC. NovelE provided oversight of the tank removal and collected the environmental samples for the closure of the tanks and integral piping. In total, 38 soil samples were collected for screening with an organic vapor analyzer.

Site activities included soil boring installation, monitor well installation and abandonment, soil excavation, tank removal, and vacuum extraction as an interim remedial action. Liza Grudin, PE used her prior experience with the site dating back to 2001 to manage the multiple discharges and evaluate the site history during the assessment and remediation progress. Throughout the project, Liza determined cost allocations between FDEP funding, developer/owner costs, and items that were related to the three open insurance claims for the April 2016 discharge. After review of the insurance correspondence to the new owner, Liza identified a data gap that ultimately led to coverage of a new release on the property. Upon discovery of a new discharge, Ms. Grudin coordinated all discharge reporting, interim source removal and assessment activities and activation of the insurance claim. As a licensed water well contractor, NovelE abandoned all onsite monitoring wells in advance of site construction and demolition activities.

Ms. Grudin was the Project Manager and Engineer-of-Record for the Site Assessment completed subsequent to the new discharge and Remedial Action Plan. Site assessment activities included the installation of soil borings, monitoring wells, collection of soil samples for confirmatory analysis and groundwater sampling. The remediation strategy ultimately approved by the Florida Department of

Environmental Protection includes installation of air sparging and soil vapor extraction wells for episodic remediation. All remediation activities were coordinated and approved with the insurance company, the insurance company's consultant, the existing property owner, future lease tenant and the regulatory agency. The site is currently in remedial action construction phase.

WaWa Site Various, Florida: Ms. Grudin was the Engineer-of-Record for the Notice of Dewatering / Dewatering Plans for the installation of underground storage tanks (USTs) during construction of several WaWa facilities. Dewatering was proposed for the duration of the UST installation to lower the water table and facilitate the installation. A series of well points were proposed for installation around the perimeter of the UST area, then groundwater was removed using a suction pump that generates vacuum at the well points. The dewatering plan included details of the well points, turbidity control, fail safes, and flow measurement.

Keystone Civic Association, Odessa, Pasco County, Florida: NovelEsolutions, Inc. (NovelE) was contracted to the Keystone Civic Association (KCI) for environmental consulting services. Liza Grudin, PE served as the Engineer-of-Record. NovelE was tasked with reviewing the laboratory analytical report for soil and surface water samples collected by Florida Department of Environmental Protection (FDEP) personnel based on shooting range operations on a neighboring property. Sampling activities were performed by FDEP personnel in February 2018 and the samples collected were submitted and analyzed by FDEP's Central Laboratory located in Tallahassee, Florida. NovelE was authorized by the client, the President of the Keystone Civic Association, to perform interpretation and analysis of the provided chemical analytical report and to submit to the client a Letter Report Summary of the sample collection and analysis.

Risk Assessments, Multiple sites: Ms. Grudin prepared characterization assessments and risk assessment reports for two former petroleum retail and service stations located in South Florida and Northwest Florida, which included evaluation of current and future human health and potential ecological risks and required thorough knowledge of the ASTM Risk-Based Corrective Action process, including integration with FDEP's Risk-Based Corrective Action Program.

She initiated a risk-based corrective action evaluation program for 46 former petroleum sites across the State of Florida, in accordance with a BP's internal risk-based corrective action policy. She implemented RBCA evaluations using the client's proprietary guidance manual and standard practices and procedures for site characterization, exposure assessments, and risk assessment evaluations, which required a thorough knowledge of the ASTM tiered risk assessment approach, EPA Risk Assessment Guidance for Superfund Sites, and the FDEP Risk-Based Corrective Action Program.

Ms. Grudin performed eight (8) Risk Assessments in accordance with former Chapter 62-770.650, FAC, at active petroleum retail and service stations located in Dade, Broward, Bay, Volusia and Palm Beach counties. She worked with BP to implement their risk software under the current regulatory requirements. She compared FDEP regulations to BP's standard procedures and practices to ensure that the strictest risk assessment guidelines were followed for soil, subsurface soil, groundwater, surface water, sediments, and vapor pathways. She developed a template for BP to use in all risk assessments within their retail station

sites. Based upon these efforts, Ms. Grudin was contacted by Motiva on the recommendation of BP staff to provide similar services.

Private Client, Port Tampa Bay Industrial Property Phase I and Phase II Environmental Site Assessments, Tampa, Hillsborough County, Florida: Ms. Grudin provided project management for a Phase I Environmental Site Assessment (ESA) on this 7-acre property originally developed in the 1960's. Former uses of the property included bulk fuel storage and truck maintenance. A Site Conceptual Model for a Phase II ESA was developed, and fieldwork was conducted to evaluate onsite RECs including the service bays, truck wash area, oil/water separator, and septic tank. Remediation alternatives included Initial Remedial Actions using source removal with closure using Risk Management Option II with engineering and institutional controls. Funding mechanisms for cleanup activities included application of the Brownfields Tax Credit and State of Florida Low-Scored Site Initiative (LSSI). Initial Brownfields meetings were held with the City of Tampa and the site was determined to be a good candidate. Additional work is on hold pending developer interests in the property.

NEPA Compliance: Ms. Grudin served as the Environmental Manager responsible for National Environmental Policy Act (NEPA) compliance on a large contract of Florida telecommunications projects. In this role, Ms. Grudin reviewed regulatory requirements and established internal guidance utilized on the current and future projects conducted with this work scope. Her responsibilities included review and implementation of activities to meet Federal guidelines, subcontractor coordination, regulatory reviews, field documentation, client communications, report writing, and project management. Major clients included in the contracts managed by Ms. Grudin included M/A-COM, SBA Communications, and AT&T. She performed numerous Phase I Environmental Site Assessments (ESAs), NEPA evaluations, Section 106 consultations, and Environmental Assessments in accordance with FCC regulations 47 CFR - § 1.1307, Parts A and B. ESAs were conducted in general conformance with American Society for Testing and Materials (ASTM) Standard E 1527, and commercial lending and telecommunication guidelines. Along with her team, she established internal guidance and communications with appropriate personnel within the Florida offices of the United States Fish and Wildlife, Bureau of Indian Affairs, Tribal Historic Preservation Officers of local and state tribes, and the Florida State Historic Preservation Office.

Qualifications

- 15+ years in the role of Program Manager overseeing $10M+ in environmental remedial action contracts
- 20+ years of environmental remediation / construction experience conducting field oversight as Engineer-of-Record and PM on 500+ sites
- Comprehensive knowledge of federal and state laws, regulations, standards, codes and guidance managing over $15M in remediation projects
- Strategic technical expertise in Sustainable Remediation, fate and transport modeling, RBCA
- Founded and manages multi-million dollar consulting firm, NovelEsolutions, Inc.

NovelEsolutions
Engineering | Environment | Earth

Randy Whitesell, PE, ME

Senior Engineer

EDUCATION:

- *MS | Ocean Engineering | FAU, Boca Raton, FL*
- *BS | Ocean Engineering | FAU, Boca Raton, FL*

CERTIFICATIONS | REGISTRATIONS:

- *Professional Engineer: Florida, Georgia, Tennessee*
- *URS Project Manager Certification*

TRAINING:

- *FEMA IS-00100.c, IS-001000, IS-01001, IS-01003, IS-01007, & IS01008*
- *40-hr OSHA Health and Safety Training*
- *8-hr OSHA Health and Safety Annual Refresher8-hr OSHA Site Supervisor Training*
- *Excavation Safety*
- *10-hr OSHA Construction Safety and Health*
- *OSHA 510 - Occupational Safety and Health Standards for Construction*
- *American Petroleum Institute (API) Service Station Contractor Safety Key*
- *BP Safety Passport and MITT Training*
- *Smith Defense Driving Course*
- *URS Defensive Driving Course*

Professional Experience

Randy Whitesell is an Engineer with over 30 years of engineering and construction experience and is a Florida, Registered Professional Engineer.

Currently Mr. Whitesell recently returned from deployment to FEMA. He has been on deployment since early November of 2017. His position at FEMA is as a Program Delivery Manager. Mr. Whitesell has experience in hydrographic surveys, underwater assessment, underwater construction and` oversight. He was responsible for the design, implementation, construction, operation and maintenance of remediation systems utilizing bioremediation, chemical remediation, pump and treat, air sparging, soil vapor extraction, and dual phase extraction technologies. He provides engineering design, implementation, construction, and operation and maintenance of remediation systems in a broad array of lithologies. Mr. Whitesell has provided senior oversight and project management for site assessments and remediation projects from initial field investigation through site closure. Other responsibilities include providing technical support, principal review and guidance to the technical and professional staff.

Representative Project Experience

Construction Oversight and Safety Officer, Coast Guard Station, Islamorada, Florida. Provided construction oversight and safety officer for the demolition of an existing building and the installation of a prefabricated Hazardous Materials Storage Building and the repair of building damages caused by Hurricane Irma. The work included asbestos and lead sampling and the demolition and disposal of a small concrete building. Along with that the soffit system on a multistory building had to be replaced. This property abuts the Snake Creek Channel in Islamorada, Florida and the demolition of the storage building was at the water edge which created obstacles with respect to dust, debris, and environmental controls. All this work was performed under USACE EMA 385-1-1 and OSHA 1920 and 1926 guidelines.

Miami Dade County Civil and Probate Courthouse, Miami, Florida. Mr. Whitesell provides technical support for the project. He will provide construction and H&S oversight site when the project moves into the

construction phase. The project site is currently being used as a public park with a small parking lot. The Client proposes to develop the Subject Property with a Miami-Dade County Civil and Probate Courthouse. A six-foot deep parking basement will be constructed with a concrete foundation mat approximately 9 feet thick below the basement. The total excavation depth from current grade will be 15 feet bls (-8 NGVD). Mr. Whitesell is involved in the technical review of the plan for management of arsenic- and lead-impacted media so that the construction project will be protective of human health and the environment. The proposed redevelopment plan includes the construction of a Civil and Probate Courthouse with associated amenities. Soil management involves the procedures and processes needed to manage activities in areas where soil may be encountered that exceed the Direct Exposure criteria for Constituents of Concern (COCs) arsenic and lead. Site activities where soils may be encountered include but are not limited to the following: excavation, drilling, digging, grading, utility installation or removal, drainage improvements, road construction, foundation and building construction, and landscaping.

Bay Pines Healthcare, United States Department of Veteran's Affairs, St. Petersburg, Florida. Mr. Whitesell provides Quality Control and senior level technical review on Source Removal Reports, Groundwater Monitoring Plans and Reports, and SPCC Plans. Assessment activities included the installation of soil borings and monitoring wells; gauging, recovery and delineation of free product; soil and groundwater sampling. Randy is taking the lead on an evaluation of remedial alternatives including risk-based closure for the Building 40 discharge currently in the Interim Source Removal phase with monthly free product recovery. SPCC plans were prepared for the Bay Pines and Lee County facilities.

Siena Cove Development, former Quail Hollow Golf and Country Club, Wesley Chapel, FL Mr. Whitesell provides engineering review of the assessment and remediation activities as well as the data obtained at this 175-acre former golf and country club set to be redeveloped as a gated community of ±380 single-family residences. He provides technical support for the team. Mr. Whitesell provided the cut and fill calculations for the movement of contaminated soils based upon the approved Soil Management Plan (SMP). In doing so he provided efficient ways to remove the comminated soil from discrete cells where the ground elevation was too high and needed to be "cut" to final grade to cells that were too low and needed "fill" to bring the cell up to final grade. The contaminated soils had to be moved from lesser contaminated cells to cells with greater contamination while making the moves as efficient as possible.

Engineer of Record / Design Engineer, Days Inn, Florida Department of Environmental Protection Funded Cleanup, Altamonte Springs, Florida. Mr. Whitesell led the second phase of remediation at this complicated site providing comprehensive environmental consulting activities. Petroleum impacts at the site migrated through the adjacent roadway and onto a neighboring commercial parcel currently operating as a hotel. Historically, a remediation system utilizing air sparging combined with soil vapor extraction (AS/SVE) and groundwater recovery was operated onsite. Due to several factors including a high design AS flow rate, improper sizing of the SVE system, and inadequate spacing of the remediation wells, the remediation system was ineffective in remediating the site. A modification to the remedial design was completed by NovelE to address the petroleum-impacted soil and groundwater remaining at the site. Based on assessment activities and the large design ROI from the original RAP and RAPM documents, pockets of

petroleum impacts remained not illustrated fully by the monitoring well layout, spacing and well locations. A Remedial Action Plan Modification (RAPM) was submitted to FDEP for the design of the site-specific, full-scale remediation system. Data from over one year of episodic remediation conducted during roadway construction was utilized for the remedial design to address the over ½ acre plume.

Engineer of Record / Design Engineer, Shell Oil, Florida Department of Environmental Protection Funded Cleanup 7430 Atlantic Blvd., Jacksonville, Florida. Provided engineering design and implementation of a large-scale petroleum AS/SVE remediation project. The hydrocarbon impacted area covered approximately 2 acres across a commercial plaza with various businesses and a large parking lot. The site had two very sensitive areas; there were large Live Oak trees within the hydrocarbon plume that required protection and non-disturbance of the area beneath the drip line of the trees and a sensitive waterway down gradient of the hydrocarbon plume.

To address the Live Oaks remediation wells and piping trenches were reposition and all work around the drip line was performed by hand. The City of Jacksonville was on site various times to monitor the work around these trees.

The hydrocarbon plume was migrating towards a sensitive waterway down gradient. To stop this migration the groundwater flow was analyzed, and the remediation system was altered so that some of the remediation AS/SVE wells were installed ahead of the migrating plume. The site achieved cleanup goals within approximately one year of operation.

Engineer of Record / Design Engineer, BP No. 461, Florida Department of Environmental Protection Funded Cleanup Altamonte Springs, Florida. Provided additional assessment multi-level pilot testing, engineering design and implementation of a large-scale petroleum remediation project. The lithology at the site consisted of a sand layer to approximately 45 feet below land surface (bls) followed by a 5-foot thick clay layer that was at the groundwater table. There was approximately a 5-foot layer of sand below that setting on a hard-weathered limestone that became more porous with depth. Groundwater impacts continued to depths over 100 feet bls. Because of the depth to groundwater being approximately 45 feet bls and the groundwater impact so deep 3 SVE wells and 2 AS wells were used for the pilot test. The AS and SVE wells were screened at various depths. During the pilot test the intermediate well (approximately 50 feet bls) was opened to take readings. It was observed that a large amount of vapors were escaping through that well. An air sample was taken and analyzed. The results indicate that well was passively venting over 100 pounds of hydrocarbons per day. Therefore, the final design incorporated those results into it and created chimney/vent wells to capture the hydrocarbons trapped below the confining clay layer. Although the site was transferred to another consultant for the implementation of the RAP they installed the system as designed and during the first quarter of operation the with only the SVE system in operation (as the concentrations were too high to turn on the AS system) they removed over a 1000 pounds of hydrocarbons. Project included: assessment data review and additional assessment recommendations to optimize remediation, remedial action design, modeling of site data to optimize treatment system design.

Engineer of Record / Design Engineer, Coastal Mart No. 428, Waldo, Florida. Provided engineering design and implementation and construction management and oversight of a large excavation that included sheet piling, free product recovery and source removal. Upon completion of the excavation chemical remediation was performed.

The hydrocarbon impacts were predominately confined to a tight clay lens approximately 3 feet below land surface, 8 feet thick, and approximately 5000 square feet lying within the site boundaries. Groundwater was not encountered until approximately 14 feet below land surface. The clay lens was bordered by sands and silty sands on all sides. Since the primary area of remediation was very tight clay the remediation technology that was initially evaluated was high vacuum extraction. However, since the clay was bordered on all sides by sand source removal was evaluated as well. A cost comparison between performing a source removal and using high vacuum extraction was prepared. Since no pilot tests were performed this evaluation included estimating the time to cleanup based on contaminate transport, porosity, and retardation. The radius of influence was based on a combination of stagnation point calculations and past experience. The source removal was approximately $100,000 less expensive than high vacuum extraction and could reach Post Active Remediation Monitoring at a much quicker rate. Also, should there be a need for additional remediation in the future the remediation would be perform in a sandy environment which would be much more cost effective and a greater success rate than if the clay had remained. Upon further evaluation and since the site was no longer in operation it was determined that it was less expensive to remove the UST and UST systems than it was to work around them. This also would allow any hydrocarbon-impacted soils found within the UST area to be removed as well.

The entire clay lens was removed along with the free product. To address the hydrocarbon-impacted groundwater beneath the clay chemical remediation was performed. Upon completion of the source removal and backfilling chemicals were injected at various points below the base of the excavation and approximately 5-foot into the groundwater.

Project also included: soil and groundwater assessment data review and additional assessment recommendations to optimize remediation, remedial action design, preparation of construction drawings and sediment erosion control plan.

Project Manager / Lead Engineer, NoPetro - Lynx Mass Transit, Orlando, Florida. Provided project management and engineering and construction management for the conversion of the Lynx Mass Transit System vehicles from petroleum to natural gas. The project included the conversion on the maintenance facilities as well as the construction of a fast fill station to fuel the vehicles.

The existing maintenance facility had to be retrofitted to allow the use of natural gas instead of petroleum as well as bringing the facility up to the current Florida Building Codes. This included upgrading the ventilations systems, mechanical delivery systems, and safety systems.

A new a fast fill fueling facility was constructed to allow for public use as well as access for the mass transit fleet. The facility was fully automated and has a main entry for the public and side entry for the mass transit vehicles. Permitting was performed through Orange County Building Department. Some of the hurdles encountered included that the lot used for the facility had many native trees and wetlands that had to be addressed before clearing began.

Project Manager / Engineer of Record, Solid Waste Authority, West Palm Beach, Florida. Provided project management, construction management, and was the engineer of record for the design and construction of a wetwell system to handle the effluent from the landfill. The wetwell was designed to handle overflow from the existing wetwell should it be needed as well as to divert flow from the existing wetwell when maintenance was needed. The wetwells provide temporary storage until the effluent could be inject into a deep well for disposal.

FEMA/Hurricane Recovery Experience- Program Delivery Manager (PDMG), Disaster DR4337 – Hurricane Irma

Mr. Whitesell's main goal while at FEMA has been to provide customer service to assigned Applicants throughout the Public Assistance (PA) grant delivery process. As a PDMG Mr. Whitesell facilitates and coordinates the effective, efficient, and accurate delivery of grant funding while coordinating the Applicant's recovery priorities, understanding their capabilities and capacity to develop projects and participate in site inspections. The majority of the Applicant's damages were the results of hurricane driven wind, rain, and storm surge. His Applicants were in southeast Florida and the Florida Keys. Damages included ocean sediments filling stormwater systems, roadways, and parking lots, storm surge damaging roadways, harbors, marinas, and buildings. Mr. Whitesell has created a great working relationship with his Applicants as well as his fellow workers.

Construction Oversight and Safety Officer, US Fish & Wildlife Quarters, Crocodile Lake Refuge, Key Largo, Florida Mr. Whitesell provided construction oversight, quality control, and safety officer for the demolition of an existing bunkhouse building and the installation of a prefabricated building. After the demolition of the existing bunkhouse was completed a pier/column system was installed so that to raise the new bunkhouse above the floodplain. The new bunkhouse was brought in and craned into place on top of the columns. From there the bunkhouse had to be completed both inside and out. All this work was performed under USACE EM 385-1-1 and OSHA 1920 and 1926 guidelines.

Construction Oversight and Safety Officer, US Fish & Wildlife Quarters, National Key Deer Refuge, Big Pine Key, Florida Mr. Whitesell provided construction oversight quality control, and was the safety officer for the repairs to various Living Quarters for US Fish & Wildlife personnel that were damaged during Hurricane Irma. These were residential facilities that had interior and exterior damage from the hurricane. All work was performed under USACE EM 385-1-1 and OSHA 1920 and 1926 guidelines.

Submerged Breakwater – West Palm Beach, Florida. Mr. Whitesell was responsible for monitoring and analyzing an experimental submerged breakwater. He performed and documented field and laboratory

research, wave tank experiments, and computer modeling and simulation. Field analysis included: Hydrographic Surveys; Land Surveys; wave height and speed measurements; wave energy dissipation studies; current direction speed and pattern tracking.

Headland Erosion Project, Oak Hill, Florida. Mr. Whitesell was Lead Engineer on an erosion reduction project where stormwater runoff was released at the upsteam end of a terminal canal. He performed the initial assessment and evaluation of the erosion.

Seawall Undermining Project, New Smyrna Beach, Florida. Mr. Whitesell was Lead Engineer on a project to evaluate why a seawall failed during construction of a dock in the Intracoastal Waterway. He performed underwater surveys and underwater soil borings/corings to determine the cause.

Drift Research Study, US Coast Guard, Ft Pierce, Florida. Mr. Whitesell was Project Engineer for a study to evaluate boat drift patterns for the U.S. Coast Guard. This included both inshore and offshore data collection and the modeling of this data.

Attachment 2

NovelEsolutions Rate Schedule

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Rate Schedule, Dated September 27, 2023

Table 1: Labor Costs

Consulting	
Position	**Billing Rate (per hour)**
Principal	$175
Program Manager	$175
Project Manager	$145
Professional Engineer/Senior Engineer	$145
Professional Geologist/Senior Geologist	$145
Project Engineer/Geologist/Scientist	$125
GIS Specialist	$120
Staff Engineer/Geologist/Scientist	$100
Senior Field Technician	$85
Junior Field Technician	$70
Drafting/CADD Technician	$95
Design Consultant/Graphic Design	$55
Administrative Assistant	$84
Data Entry/Accounting	$48
Licensed Water Well Contracting	
Position	**Billing Rate (per hour)**
Drilling Lead	$110.00
Drilling Assistant	$90.00

Table 2: Material and Equipment Costs

Item	**Billing Rate (per day)[1]**
Vehicle	$100.00 - $200.00
Mule 4x4 Side by Side	$400 + Mobilization Charge
Marine Sampling Vessel	$650 + Mobilization Charge
Multi-meter YSI 556 / YSI EXO	$200 / $400
Turbidity Meter	$50
Water Level Indicator	$50
Oil Water Interface Probe	$65
Peristaltic Pump	$50
Submersible Pump	$200
Organic Vapor Analyzer (FID)	$200
Organic Vapor Analyzer (PID)	$200
Magnetic Pipe, Cable and Fault Locator	$75
Survey Transit	$50
LevelTroll 700 Transducers	$200
Soil Sampling Kit[2]	$100
Groundwater Sampling Kit[3]	$160
Surface Water Sampling Kit[3]	$200
Subcontractors & Expenses	11%-15% markup

[1] Discounts may apply for multi-day use.
[2] Equipment rental separate costs as outlined above. Does not include concrete coring.
[3] Equipment rental separate costs as outlined above.