

# ESA

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Item #	Line Item	Notes	Unit Price	Qty/Unit	Attch.	Docs
PNC2119437P1--01-01	Environmental Planning & Acoustical Consulting Services	<b>Supplier Product Code:</b>	First Offer -	1 / each	Y	Y
Supplier Total					\$0.00	

ESA

Item: **Environmental Planning & Acoustical Consulting Services**

Attachments

ESA Submittal - BCAD Environmental Planning and Acoustical Consulting Services.pdf

Broward County Aviation Department

# Environmental Planning and Acoustical Consulting Services

PNC2119437P1



Work That Matters

01.31.20 | Statement of Qualifications



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January 31, 2020

Broward County Board of Commissioners  
Aviation Department, Planning & Development Division  
Michal Durden and Mark Roberts  
2200 SW 45<sup>th</sup> Street, Suite 101  
Dania Beach, FL 33312

**Subject: Environmental Planning and Acoustical Consulting Services, Bid #PNC2119437P1**

Dear Mr. Durden and Mr. Roberts:

Airport sponsors manage many challenges in the execution of their mission to provide their community with safe and efficient aviation facilities. Challenges include funding constraints, compliance with a myriad of complex regulations, maintenance of safety, and operational considerations. The Broward County Aviation Department (BCAD) meets these challenges daily, while at the same time maintaining a positive public image and encouraging economic growth. BCAD is seeking a highly qualified firm to provide comprehensive Environmental Planning and Acoustical Consulting Services and facilitate the five groups of services that comprise this solicitation. Environmental Science Associates' (ESA) approach is to provide this support from an environmental program management perspective, supporting BCAD with the complete breadth of services, while anticipating needs and bringing ideas and innovation to BCAD.

As aviation experts that enjoy a national reputation for excellence, ESA's staff are highly experienced at working within Federal Aviation Administration (FAA) protocols for project execution and documentation from planning through the environmental regulatory process, and ultimately construction. We are an environmental planning and acoustical consulting firm that is unique in our ability to bring the top talent in the industry to support BCAD under this contract. We understand the FAA and Florida Department of Transportation (FDOT) grant processes, the related assurances, and the specific requirements for reporting that must be adhered to in order to keep the funds streaming. ESA has extensive experience managing environmental programs for our airport clients due, in no small part, to our reputation and relationships with FAA and other agency personnel at a national, regional, and local level. Airport clients throughout the nation repeatedly turn to our team on controversial projects when public or agency confidence in the process is low. Each time, we have led those projects to successful conclusion.

ESA has demonstrated responsiveness to our airport clients through our numerous on-call contracts where we serve as an extension of staff providing environmental expertise and support whenever needed. With over 85 percent of our business coming from repeat clients, client satisfaction is our number one priority. Whether providing wildlife management training to airport staff, performing compliance services for onsite mitigation areas, or expediting a Solar Farm Expansion Environmental Assessment (EA) from Notice-to-Proceed to a Finding of No Significant Impact (FONSI) in 25 days, ESA consistently delivers. For this contract, we have enhanced our team with a select cadre of local and specialized subconsultants that deepen our bench and allow us to bring the best talent to this assignment. Firms such as Ricondo, KCI (formerly Keith & Schnars), Cherokee Enterprises Inc., and Garth Solutions are among the key team members that will be ready to support BCAD as part of the ESA team. Our team's history with the County's airports and understanding of BCAD's workplan and priorities will enable us to "hit the ground running."

I trust that the information in this submittal will provide BCAD with the assurance that ESA, and our key personnel in particular, represent a highly successful, well respected, and expertly qualified team, dedicated to providing you with timely, effective, and unmatched Environmental Planning and Acoustical Consulting services. I personally commit ESA's resources to BCAD for this assignment, and if I can be of any assistance, please contact me at (407) 748-2729 or [jsullivan@esassoc.com](mailto:jsullivan@esassoc.com).

Sincerely,  
ESA

Julie Sullivan  
Project Manager and SE Regional Director

Michael Arnold  
Project Director and Senior Vice President

Fort Lauderdale-Hollywood International Airport is



ranked 18th

in total passenger traffic and 10th in international passengers in the United States, according to **Airports Council International-North America (ACI-NA) 2018** data, the latest official rankings available.

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## Ability of Professional Personnel – Organization and Qualification

## Section 1

# Ability of Professional Personnel – Organization and Qualification

## 1.1: Qualifications and Relevant Experience

### ESA Firm Profile

Environmental Science Associates (ESA) is an environmental consulting and planning firm committed to the principles of sustainability. Founded in 1969, shortly before enactment of the National Environmental Policy Act (NEPA), ESA has grown into an employee-owned firm with over 500 specialized professionals in more than 20 locations across the United States, including five offices in Florida. For five decades we have guided integrated decision-making and developed innovative and workable solutions for our clients. We are large enough to offer a full range of services but small enough to provide the personal service and attention our clients deserve. Our nimble, multidisciplinary teams allow us to bring project-specific expertise to the local level.

ESA distinguishes itself from other environmental consulting firms with a dedicated aviation consulting practice that serves airport clients exclusively. Our services encompass the full range of environmental compliance and our airport clients repeatedly return to ESA for our ability to provide effective on-call aviation consulting services that address the broad range of environmental issues faced by airports on a daily basis. Fostering a participatory approach, ESA is able to identify the often conflicting needs of the aviation community, local jurisdictions, regulatory agencies, and airport neighbors and begin to address issues before they arise. We partner with airport owners and operators and work collaboratively with engineers and constructors through integrated, diverse teams to bring a comprehensive view to the planning, design, compliance, and implementation of airport development projects. ESA provides aviation and environmental planning services at facilities that are widely diverse in terms of geography and facility type, and fosters staff with equally diverse and comprehensive capabilities.



Unique to ESA, our extensive experience in Federal and state compliance documentation and technical studies for diverse facilities enables us to guide clients through the challenges of balancing the issues associated with owning and operating airports. ESA is also a national leader in airport noise and acoustical consulting services. The Part 150 Noise and Land Use Compatibility studies we are conducting for John F. Kennedy International (JFK) and LaGuardia (LGA) Airports represent the largest combined Part 150 effort ever conducted in the U.S. ESA understands the unique operational environment of Florida Airports having conducted more than 100 airport noise related studies in Florida alone including the largest noise study ever undertaken in Florida, the Fort Lauderdale-Hollywood International Airport (FLL) Part 150 Study. ESA's specialized focus on airports as a national practice has enabled us to provide unmatched client service, demonstrated by the fact that more than 85 percent of our business comes from repeat clients. Whether it is a high-profile controversial new runway project or a fast-tracked Environmental Assessment (EA) for airfield improvements, ESA consistently exceeds client expectations while enhancing client credibility.



ESA's full suite of environmental capabilities encompass project planning through design and permitting to construction and post-construction environmental compliance. ESA has facilitated environmental approvals for some of the most challenging projects in the United States, including the 1,342 acre Orlando International Airport (MCO) East Airfield Development Program, which involved offsite mitigation of more than 170 acres of wetland impacts and the Chicago O'Hare International Airport (ORD) Modernization Program Environmental Impact Statement (EIS), which completely reconfigured one of the busiest airports in the world. The ESA Team has worked together, both as individuals and as collaborating firms, on similar aviation assignments both for Broward County Aviation Department (BCAD) and throughout the country. We distinguish ourselves through our airport environmental experience, coupled with agency relationships and trust forged between our staff and key decision makers.

Our aviation consulting experience spans over 150 airports, and we are currently contracted to more than 40 airports throughout Florida. Whether completing a "fast track" NEPA assignment for Orlando International Airport, evaluating a proposed FAA flight procedure for Miami International, or implementing a permit compliance tracking system at Los Angeles International Airport, we customize our staffing and approach to each assignment.

## Integrated Team Overview

The ESA Team was assembled specifically to support the five groups of services identified in the County's Scope of Services. While ESA is a full service aviation planning, noise and environmental consulting firm, we understand the value of bringing key local and technical experts to add further depth and specialized services to support BCAD under this contract. By selecting specialty aviation subconsultants with whom BCAD and ESA have long-standing relationships, we bring our integrated program management approach to meet BCAD's diverse environmental planning and acoustical consulting needs. The key staff identified in the submittal are the best and the brightest in the consulting industry and have well-earned reputations for exceeding client expectations. Our team routinely provides services and develops deliverables that meet Federal Aviation Administration (FAA) and Florida Department of Transportation (FDOT) requirements. Many of the professionals assigned to this contract have longstanding relationships with Broward County and BCAD as well as the respect and trust of local, state and federal agency staff. As trusted advisors, our team understand not only the airport system's history and issues, but your future vision. Whether it is the need to expertly address a community noise concern, or to develop a sustainability program from the ground up, the ESA team was designed for this type of contract. We work seamlessly with our subconsultant partners to bring BCAD the deepest bench of technical experts in the business. With unmatched Florida and national experience on similar projects, we offer fresh perspectives and insights on best practices and evolving trends in the aviation industry.

## Subconsultant Partners

The ESA Team member subconsultant firms were selected because they add value to the services we will provide to BCAD under this contract. The ESA Team possesses the necessary skills and a broad depth of resources needed to provide comprehensive environmental program management support to BCAD. The ESA Team is comprised of firms that have well established working relationships built on trust and a history of successful partnership with BCAD. The key individuals identified for this project work together on a wide variety of projects and we are accustomed to working seamlessly across company lines. Our relationships allow us to deliver industry leading solutions on large and complex projects efficiently and effectively. A summary of the key subconsultant team members is included below.



### **Ricondo & Associates, Inc. (Ricondo)**

Ricondo is a full-service aviation consultancy specializing in airport planning and business management services in support of airport owners and operators, airlines, and federal and state agencies. Since its inception in 1989, Ricondo has been dedicated to solving the challenging problems facing the airport and airline industries. The firm is 100 percent employee owned and has no other business interest aside from airport and aviation consulting.

What distinguishes Ricondo in airport consulting is their sole focus on the aviation industry, their responsive approach to delivery of services, and their commitment to supporting their clients, beginning with preliminary planning and continuing through design support, federal processing, financing, and project construction. Ricondo's management philosophy places their first priority on client needs and the delivery of services in a way that builds long-term successful client relationships. Ricondo's approach to service delivery emphasizes working with their clients to ensure that products and recommendations are responsive to client goals and objectives. This partnership approach is a critical aspect in achieving client satisfaction and one of the reasons for their success. More than 80 percent of Ricondo's airport, state, and federal assignments are from repeat clients, evidence of the quality of services they provide, their professional reputation, and the relationships they have built.

Ricondo, is intimately familiar with BCAD's future capital program needs. Having led the recent Master Plan Updates (MPUs) for both FLL and North Perry (HWO) airports, Ricondo is uniquely qualified to assist in developing a custom approach to environmental program management that meets BCAD's long term strategic development need. Ricondo is currently supporting ESA in providing similar services for Tampa International Airport (TPA) on-call noise and acoustical services contract and ESA's Statewide Aviation System Planning and Support contract with FDOT. Ricondo is an exclusive teaming partner to the ESA team.



### **Cherokee Enterprises, Inc. (CEI)**

CEI is a company focused on providing solutions for their clients' fueling and

environmental needs by filling the gap in the environmental engineering and construction services market. They specialize in tackling some of the most demanding infrastructure improvements offering civil, mechanical and environmental engineering, and construction services. They go beyond the traditional array of services offered by other firms. They create Best Value proposition for their clients by performing both the design and construction services, minimizing client liabilities as they assume the responsibility of both designing and implementing the solution.

CEI has extensive experience with the construction of large tank farms, process piping and pumps/filtration equipment, having installed facilities at FLL, MCO, Miami International Airport, Charlotte-Douglas International Airport, the Naval Air Facilities Fueling Facility in Jacksonville and Department of Defense (DoD) Facilities. CEI is an exclusive teaming partner to the ESA team. The firm is certified DBE/ACDBE.



### **Garth Solutions (GSI)**

Based in Miramar, Florida, GSI is a boutique communications and management consulting firm that delivers strategic

business solutions to a diverse portfolio of clients in both the public and private sectors across the U.S. and Caribbean. With prior experience and offices in the New York, Philadelphia, and Washington DC metro markets, they have enjoyed broad national exposure while maximizing results in the local markets in which they are deeply rooted. GSI's team of 32 professionals and available consulting subject matter experts are natural collaborators who enjoy working relationships with trusted partners.

GSI has not only provided outreach and communication support for FLL's expansion program, they also led the outreach and communication efforts for the FLL Part 150 Study and the FLL MPU. GSI is intimately familiar with the community's concerns and their resourcefulness has been instrumental to the success of the outreach efforts. GSI is currently supporting ESA on the Naples Airport (APF) On-Call Noise and Acoustical services contract and associated Part 150 Study. GSI is an exclusive teaming partner to the ESA team. The firm is certified DBE/ACDBE.





**MSE Group, LLC**

MSE Group, LLC, is an international consulting firm providing qualified and competitive environmental,

engineering, and health and safety services to public and private entities. Success for their clients, teaming partners, and employees is derived from an intense work ethic and the ability to enjoy the journey. They are an SBA-certified 8(a), EDWOSB 8(m), DBE business with additional state and local small business and minority certifications in numerous states across the country and 14 branch and satellite office locations nationwide.

MSE is providing similar on call service for the Greater Orlando Aviation Authority (GOAA) among others. ESA is currently supporting MSE as a subconsultant providing environmental support for that contract. MSE is an exclusive teaming partner to the ESA team.

**Avion Solutions Group (ASG)**



Avion Solutions Group was founded in 2018. ASG specializes in assisting municipalities, governmental agencies and private developers

navigate complex aviation regulatory, developmental, and planning issues. ASG currently provides these services on projects related to passenger terminal expansions, fixed base operator development, corporate aviation departments, and general services such as program management, planning and environmental strategy, and general advisory services. This includes environmental program management services for the Port Authority of New York and New Jersey (PANYNJ) as they navigate some of the largest development programs in the agency’s history.

ESA has worked with ASG on numerous projects including the JFK and LGA Part 150 studies and the EIS for the new runway and expansion program at Charlotte Douglas International Airport (CLT). ASG is an exclusive teaming partner to the ESA team.



**Jacobsen|Daniels (J|D)**

Jacobsen|Daniels (J|D) is a professional consulting services firm specializing in airport facility planning, implementation, operation, and management. Formed in

2001 by Brad Jacobsen and Darryl Daniels, the firm has over 170 employees, including more than 70 professional consulting staff. J|D is based in Detroit, MI with offices in Ohio, Illinois, Missouri, Georgia, California, Texas, and Washington. The firm is certified DBE/ACDBE and MBE in several states, including Florida.

J|D consultants bring years of experience performing consulting services in airport master planning, strategic and operational planning, and environmental and technical planning at small-, medium-, and large-hub commercial airports throughout the country. They also have diverse experience in program management. This understanding enables airport, airline, rental car, and other industry executives to be more informed, more efficient, and more effective in planning and implementing development programs and capital projects.

From concept development through planning, design, and construction to project close-out, facility management and operation, J|D consultants provide coordination and communication, critical issues resolution and consensus building to keep projects moving forward. Their consultants are skilled at executing effective program and project controls during all phases of a project. This multi-faceted experience allows J|D consultants to address master planning issues as airport management and leadership will, with an eye to how projects are implemented and how consensus is obtained. They understand the importance of timely, accurate, and relevant information throughout the life of a project. One of J|D’s key strengths is their ability to anticipate the needs of their clients and eliminate future conflicts and issues. They take pride in assessing the concerns of all impacted stakeholders in order to achieve owner/operator, user, and community satisfaction.

ESA is currently supporting J|D on national noise policy and NextGen procedure implementation through their national FAA Policy, Engineering, Analysis and Research Support (PEARS II) contract.



**Lewis Longman Walker (LLW)**

For 25 years, the attorneys

at LLW have helped the individuals, businesses, and governments that have shaped Florida's future. They offer solutions to issues associated with complex local, state, and federal laws and regulations. They focus on the specific, technical and seemingly ever-changing areas of Environmental, Land Use, Legislative, and Governmental Law. The LLW team is comprised of well-known and respected attorneys with the experience and skill to quickly resolve difficult legal challenges. They are committed to responding to clients' needs promptly and economically and believe in building long-term attorney-client relationships based upon collaboration and solid performance.

LLW is intimately familiar with the local, state and federal permitting agencies and successfully defended BCAD against litigation related to permits associated with the new south runway. LLW is currently providing strategic support to ESA on the FLL Part 150. LLW is an exclusive teaming partner to the ESA team.



**Planning Technology Incorporated (PTI)**

For over 29 years, PTI has been

successfully developing and implementing innovative technology solutions supporting airport planning and decision making for an ever-increasing array of airports and aviation industry clients worldwide. PTI tools integrate with off-the-shelf software and are combined with airport specific data to affordably tailor applications to the needs of individual users. They have extensive knowledge and working experience with airports, state, federal and international agencies along with airport users. Their team works closely with airport staff to identify specific-airport needs, design and develop computerized tools, implement successful strategies and implement and support these tools. PTI integrates the skills of senior aviation planners, highly experienced airspace and air traffic management specialists with highly skilled computer programmers to successfully produce customized solutions.

PTI is currently supporting ESA in similar roles on the Part 150 Noise studies for FLL, JFK, and LGA.



**KCI Technologies, Inc. (KCI) formerly Keith & Schnars (K&S)**

Founded in 1955, KCI is a 100-percent employee-owned engineering, consulting and construction firm serving clients throughout the United

States. Their approximately 1,600 employee-owners operate out of 49 offices in 19 states, including Florida. KCI was recently selected by ENR MidAtlantic as the region's 2017 Design Firm of the Year. In January 2019, KCI acquired K&S, a consulting firm specializing in engineering, landscape architecture, planning, construction inspection, surveying, and environmental science. Based out of Fort Lauderdale, K&S has played a key role in Florida's growing markets. After transitioning into KCI, they expanded from five to eight offices throughout the state of Florida. K&S has been a "go-to" firm in South Florida for over 45 years. KCI's professional staff of engineers, planners, scientists, surveyors, and construction managers offer a broad range of engineering services, including wireless/communications infrastructure, civil, structural, transportation, environmental, hazardous waste, mechanical, electrical, telecommunications, and soils. They also provide cultural and environmental resource management services, land planning and landscape architecture, geology, hydrology, ecology, surveying, and construction management and inspection.

KCI has extensive experience on FLL and throughout Broward County and south Florida and is an exclusive teaming partner to the ESA team.

## KEY STAFF

The ESA Team includes key experts in all facets of the County’s requested Scope of Services. Our depth of experience in environmental planning, and regulatory compliance services; acoustical services; environmental site investigation and rehabilitation services; sustainability services; and on-call/program management are unmatched in the industry. ESA’s Project Manager for this contract, **Julie Sullivan (see Section 1.2)**, brings 20 years of experience as an airport environmental industry leader to BCAD. A Vice President with ESA, Ms. Sullivan brings not only her experience and energy, but the ability to draw on all of the resources of the ESA Team to effectively meet BCAD’s needs under this assignment. Well known in the Florida aviation industry as well as with Federal and state permitting agencies, Ms. Sullivan has managed the comprehensive environmental programs for dozens of airport clients and is renowned for her ability to develop and implement comprehensive and efficient environmental program strategy. Ms. Sullivan will be supported by **Mike Arnold** in the role of Project Director. Mr. Arnold is a Senior Vice President and member of ESA’s Board of Directors, with over 30 years of aviation planning, environmental planning, and aviation noise experience on many of the most complex airport projects in the country. Having previously served as an extension of staff for the Palm Beach County Department of Airports (DOA), where he supported and oversaw more than 40 fully-scoped projects at the DOA’s four airports, Mr. Arnold provides first-hand experience in managing complex on-call and staff extension services. Mr. Arnold is an active leader in aviation industry groups and regularly moderates, speaks, and facilitates discussions on a wide variety of industry issues including sustainability (green airports), land use compatibility, forecasting, emerging issues in noise and Title 14 Code of Federal Regulations (CFR) Part 150 studies, integration of planning and environmental processes, and the changing needs of airport planning.

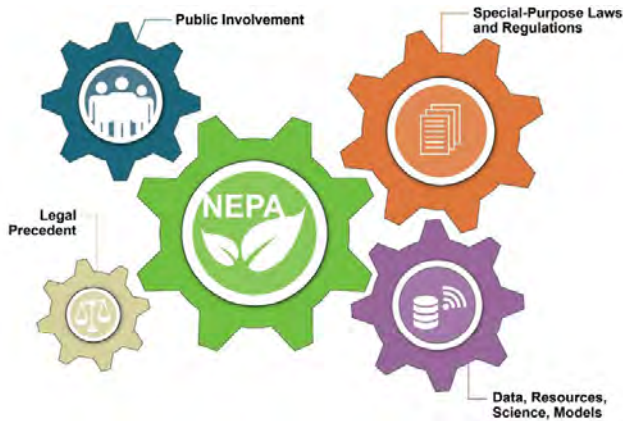
For each of the five groups of services that comprise the Environmental Planning and Acoustical Consulting Services, we have designated a key ESA staff member who will support our Project Manager and serve as the Lead for those general services. These staff were identified for their expertise in each subject area and represent the best the industry has to offer. In support of these service leads, the ESA team has hundreds of specialized technical staff that can be drawn upon to meet the specific needs of any assignment under this contract.

## Service Group 1 - Environmental Planning, and Regulatory Compliance Services

At ESA, our goal is to assist airports and other stakeholders in balancing environmental issues with the demand for expanded facilities and operations. We bring an interdisciplinary approach to resolve environmental issues and devise practical solutions for the full range of projects from small to the largest and most complex. Our professionals effectively collaborate with engineers, contractors and decision makers to fully assess environmental impacts at all stages of projects, from planning through design and construction to post construction compliance. Our approach begins with our understanding of not only how airports operate on a daily basis, but also how they interrelate with their local and regional communities. Our experience with the environmental issues and the legal framework influencing airport development makes us uniquely qualified for this type of contract. We balance aviation knowledge, technical expertise, coordination skills, insight and creativity to allow for maximum flexibility in airport development with minimum cost and impacts to the environment.

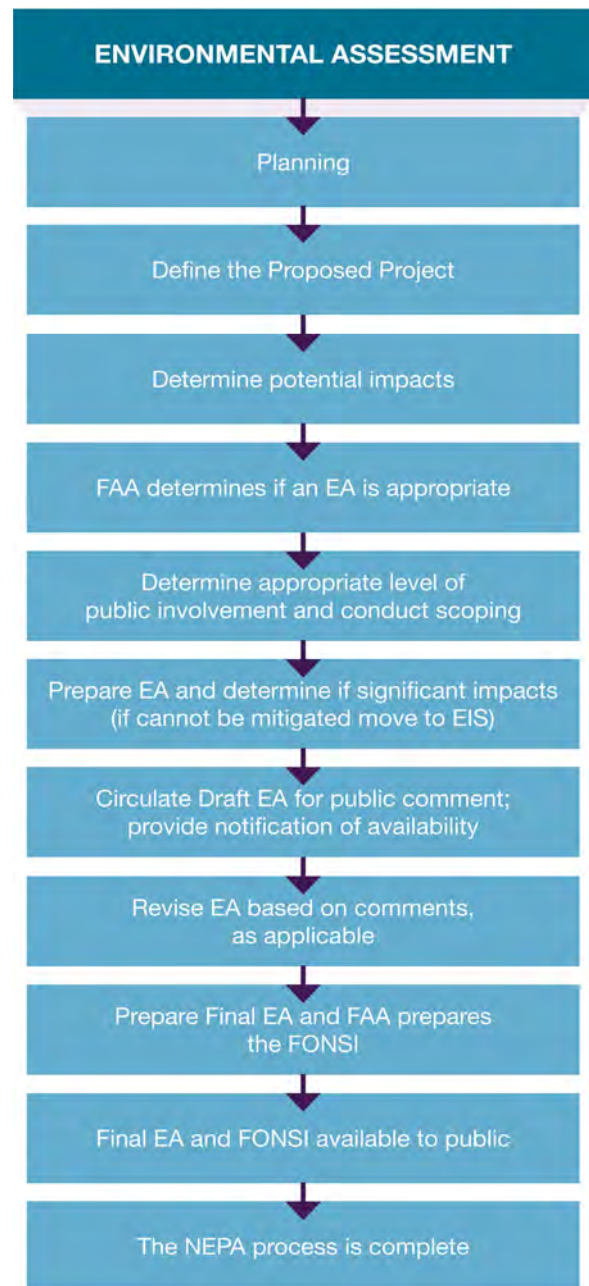
ESA is unique as a firm in that our aviation consultants are backed by the depth of a 50-year old environmental planning firm that has specialists in every resource category identified in FAA Order 1050.1F. Founded within months of enactment of NEPA, ESA’s business has centered on the evaluation of environmental impacts associated with capital projects. We have prepared more than 5,000 environmental documents including some of the most complex airport NEPA documents in recent years. ***We have processed more documents through the Orlando Airports District Office (ADO) in recent years than any other firm.*** Our unmatched experience in FAA environmental documentation allows us to bring a deep bench and “lessons learned” to BCAD under this contract.

As aviation experts that enjoy a national reputation for excellence, ESA staff are highly experienced working within standard FAA protocols for project execution and documentation from planning through the environmental regulatory process, and ultimately construction. The ESA Team has extensive experience facilitating NEPA clearances for our airport clients due, in no small part, to our reputation and relationships with FAA personnel at a national, regional and local level.



NEPA compliance is mandated for every airport project that requires a federal action (e.g., Airport Layout Plan [ALP] approval, grant funding, etc.). This requirement varies significantly based on the type of project, and its anticipated impacts. While the NEPA process itself is quite formulaic, as evidenced by the adjacent EA flowchart, ESA’s approach involves proactive integration of environmental considerations into the planning and design processes, which results in early identification of environmental risks and opportunities for efficiencies that may not otherwise be recognized. By evaluating potential issues early in the process, we are able to avoid and minimize impacts, thoroughly document those efforts, and develop creative and cost-effective mitigation strategies. Our team has extensive NEPA experience including virtually every project type.

In just the past 36 months, we have worked on dozens of NEPA documents including documented Categorical Exclusions (CatEXs), EAs, EISs, and related noise studies. Of these, approximately 20 projects have been processed through the FAA’s Orlando ADO, many of them have been approved or are pending approval. Whether it is a high-profile politically-motivated project like the EA for a Runway Extension at Zephyrhills Municipal Airport (ZPH) or a project that had failed to move forward for over a decade due to lack of runway length justification (e.g., North County Airport, Palm Beach), ESA has routinely been brought in to move those projects across the finish line.



**SERVICE GROUP 1 LEAD - SUSAN SHAW**



**Susan Shaw** brings over 20 years of experience in a broad range of local, state, and federal environmental issues to BCAD under this contract. Ms. Shaw has worked closely with our Project Manager, Ms. Sullivan, for the past 18 years, managing projects ranging from straightforward NEPA documentation for airfield improvements at APF to complex logistics and staff deployment for the relocation of hundreds of gopher tortoises from a large development area at Lakeland Linder International Airport (LAL) on an extremely compressed schedule. Ms. Shaw’s deep knowledge of the regulatory requirements combined with her agency relationships has established her as a “go to” lead at ESA for environmental planning and regulatory services. For this contract, Ms. Shaw will support Ms. Sullivan by leading the Environmental Planning and Regulatory Compliance services and facilitate each task by assuring the right resources are assigned and accountable.

Supporting Ms. Shaw, we have a deep bench of technical specialists with expertise in all of the areas that fall under this category of services. While key staff are identified in our team organizational chart (last page of Section 2) we have dozens of additional staff that can be drawn upon, as required, for each assignment. Some of the key staff for each service group are briefly discussed here with resumes provided for at the end of Section 1.



**Craig Stout, PWS** is one of ESA’s FAA Qualified Wildlife Biologists and Professional Wetland Scientists. Specializing in airport regulatory coordination and permitting, Mr. Stout brings over 25 years of experience to support this contract. Mr. Stout often leads complex permitting and compliance actions for ESA’s airport clients and has a well-established record facilitating approvals for even the most challenging projects. Mr. Stout is also a specialized licensed natural areas herbicide applicator, which allows him to design and implement Wetland and Aquatic Maintenance programs for a myriad of airside, landside and offsite projects.



**Nick Gadbois** has ten years of professional experience in the environmental field. He has served as Environmental Scientist on various environmental projects for the South Florida Water Management District (SFWMD), FDOT, Florida Department of Environmental Protection (FDEP), and U.S. Army Corps of Engineers (USACE). Mr. Gadbois has assisted with wildlife surveys for USACE projects and has obtained several environmental permits from regulatory agencies, conducted permit compliance inspections, and managed contamination studies. His experience includes environmental monitoring, marine and freshwater wetland plant species identification, wetland delineations, wildlife surveys, biological evaluations, and assessments of natural resources providing advice, guidance, and information as a member of interdisciplinary teams.

**Amy Paulson** is an environmental planner and analyst with over 22 years of wide-ranging project experience spanning regulatory agency, military, tribal, international, local government, and community-based environmental programs and clients and the preparation of complex analysis documents, management plans, policy guidance documents, and website content. She has managed large, complex NEPA and environmental analysis projects to include both EAs and EISs, composed of internal subject matter expert teams, analysts, and subcontractors, as well as external teams including Army, Navy, Marine Corps, Air Force, and National Guard, FAA, Fish and Wildlife Service, National Marine Fisheries Service, and NASA as proponents and cooperating agencies. She routinely manages stakeholder involvement including client and agency interactions, conducts public presentations, hearings, trainings, team building workshops, and performs successful conflict mitigation, dispute resolution, and advanced negotiation facilitation.



**Troy Craig** has 10 years of professional experience in environmental protection and conservation. He currently manages, coordinates and/or conducts National Pollution Discharge Elimination System (NPDES) permits, Basin Management Action Plans (BMAPs), water quality monitoring programs, and construction inspections. Outside of NPDES work, his experience includes environmental monitoring, marine and wetland species identification, report preparation, biological evaluations and assessments of natural resources, providing advice, guidance, and information as a member of interdisciplinary teams.



**Robert Diffenderfer** maintains a diverse governmental practice involving complex environmental and land use matters, including representation before local, state, and federal legislative and regulatory bodies; growth management counseling; comprehensive plan adoption, implementation and defense; DRI approval and implementation; environmental resource permitting; and related litigation. His practice also includes projects relating to special district creation, operation and administration, as well as representation of local general-purpose governments on a variety of specialized governmental, growth management and natural resource issues. Mr. Diffenderfer has handled a variety of growth management, land use and regulatory issues for large public infrastructure projects including the FLL, the Palm Beach International Airport, the North Palm Beach County General Aviation Airport, the Port of Fort Pierce, the Port of Panama City, Panama City Airport and various FDOT projects.



## Service Group 2 - Acoustical Services

ESA has provided airport noise and acoustical support, as well as stakeholder and public engagement and facilitation services, for more than 100 airports nationwide. Our noise resume includes complex projects at some of the most challenging airports in the country including LGA, JFK, MCO, FLL, ATL, Los Angeles International Airport (LAWA), Hollywood Burbank Airport (BUR), Seattle-Tacoma International Airport (SEA), Portland International Airport (PDX), San Francisco International Airport (SFO), Metropolitan Oakland International Airport (OAK), Austin-Bergstrom International Airport (AUS), Miami International Airport (MIA), and Sacramento International Airport (SMF). These services have included, but were not limited to, 14 CFR Part 150 Studies, noise contour development, flight procedure evaluation, airspace planning, residential sound insulation programs, aircraft noise measurements, aircraft ground noise studies, aircraft noise monitoring system design, compatible land use planning, noise mitigation program development, noise litigation support, public involvement program facilitation, and a wide range of on-call noise services.

Our clients regularly turn to ESA when public confidence in the process is critical to project success and we consistently deliver. ESA works closely with noise sensitive communities, noise committees, elected officials, and noise round tables on the behalf of our clients to help educate and navigate to meaningful solutions. ESA is sensitive to the often-conflicting interests and needs of airport personnel, local planners, aircraft operators, regulatory agencies, and the interested public. ESA's staff believe that to ensure the success of any project, all concerned stakeholders must be actively involved in the process. We have provided successful public involvement and outreach programs at numerous airports that comply with, or surpass, federal, state, and local requirements. ESA has effectively coalesced the often different missions of airport management, local leaders, airport tenants, aircraft operators, regulatory agencies, and the interested public through our ability to present even the most technical information in a concise and highly effective manner. The ESA Team will draw on our extensive public speaking and outreach experience to ensure that all communications engender community confidence as we have demonstrated through our ongoing work with BCAD on the FLL Part 150 study.

We are currently serving as a Trusted Advisor to more than 40 airports throughout Florida and have completed more than 100 airport noise-related projects in Florida alone. We are not only experienced at management of complex on-call projects, but we guide our clients strategically to allow them to focus their resources to have maximum value. We understand the multifaceted relationships between Florida airports and their local communities and the unique noise challenges associated with the extreme seasonal peaking characteristics. Whether assisting FLL address community concerns related to the opening of Runway 10R/28L or helping Miami Executive Airport develop strategies to address evolving noise issues, we bring creative solutions and deliver on the most challenging assignments.

ESA staff are national experts in the application of the Aviation Environmental Design Tool (AEDT), FAA's approved noise and air emissions model, to fixed-wing and helicopter noise analysis for airport and air traffic procedure projects. This includes projects involving airport terminal expansion, runway construction and maintenance, introduction of new air service, noise abatement procedures, performance based navigation procedures, and more. ESA is currently, or has recently supported FLL, MCO, and Southwest Florida International Airport (RSW) in addressing concerns related to the FAA's South-Central Florida Metroplex project. We understand the opportunities associated with area navigation (RNAV) procedure implementation as well as the challenges. In southwest Florida, ESA conducted extensive analysis in coordination with the Lee County Port Authority and the FAA at the RSW ATCT/ TRACON, the Miami Air Route Traffic Control Center and the Eastern Service Center relative to the impacts resulting from the Florida West Coast Airspace Redesign (FLOWCARS). This award winning work resulted in successful implementation of a series of new published procedures to address community concerns related to noise and altitude and was accomplished through the recent 14 CFR Part 150 Study for RSW. ESA is also currently supporting the FAA nationally in development of the noise policy and evaluation and implementation of new NextGen procedures at some of the most noise sensitive airports and complex airspace systems in the country.

**SERVICE GROUP 2 LEAD - MIKE ARNOLD**

**Mike Arnold** is the National Director of ESA's Airports Practice and has over 30 years of aviation consulting experience (18 years with ESA) including numerous aviation planning, noise, and environmental (NEPA) projects at more than 120 domestic and international airports. Mr. Arnold started his career in airport and airspace modeling in complex environments such as the Chicago region and Washington D.C. area. He has conducted airport and aircraft operational evaluations at more than 60 airports and long-term development programs for more than 25 airports. Mr. Arnold has managed and supported more than 50 noise-related projects nationally including the ongoing 14 CFR Part 150 studies for FLL, JFK, LGA, Witham Field Airport (SUA), APF, and TPA. His extensive noise experience involves virtually every possible type of noise and operational related issue at many of the busiest and most complex general aviation (GA) and commercial passenger airports in the world. For 27 of the past 30 years, Mr. Arnold has served Florida airport clients and has led the expansion of ESA's noise and environmental services in Florida to include more than 40 Florida on-call airports which account for more than 90 percent of all passenger enplanements and 65 percent of all operations at towered airports in the state. Mr. Arnold has extensive experience in addressing issues unique to Florida and has an excellent working relationship with the FAA at the Airports District Office, Regional and Headquarters levels.



Mr. Arnold has built the noise and acoustical services team at ESA with emphasis on both technical excellence and the ability to effectively communicate. Key staff identified for this contract are not only the best and brightest in the industry, but they have the specialized knowledge to support BCAD under this contract.

**Autumn Ward** has more than 15 years of experience in the aviation field. She has a strong background in aircraft noise, public outreach, and airport planning. Her project experience has included facilities ranging in size from major large-hub air carrier airports to small general aviation airports in the U.S. and abroad. She is experienced at working with the FAA on some of the most complex projects in the country, airport certification requirements, and skilled in documenting and presenting the results of technical analyses in a manner that can be clearly understood by the public. Ms. Ward has worked on noise studies or noise related projects at more than 30 airports including FLL, MCO, JFK, LGA, SUA, Orlando Melbourne International Airport (MLB), Fort Worth Alliance Airport (AFW), Key West International Airport (EYW), Snohomish County Airport/Paine Field (PAE), St. Pete-Clearwater International Airport (PIE), San Bernardino International Airport (SBD), and Hong Kong International Airports. Most recently, Autumn is serving as the Deputy Project Manager for the Part 150 Study at FLL where she works closely with BCAD staff in conducting the largest noise study ever conducted in Florida.







**Chris Sequeira** has 10 years of experience working at the intersection of federal environmental policy, process improvement, and analysis tool development, including six years as an FAA Headquarters Project Manager leading numerous aviation environmental projects. At the FAA's Office of Environment and Energy (FAA AEE), Chris co-managed the production of the AEDT, the FAA's current model of all noise and emissions analysis. He also assisted with the development of associated guidance in FAA Order 1050.1F and co-managed the production of the FAA's Aviation Emissions and Air Quality Handbook, which is used nationwide for aviation air quality analysis. While at the FAA's Air Traffic Organization (FAA ATO), Mr. Sequeira led efforts to enhance community involvement policies, NEPA compliance processes, and analysis tools. He directed a multi-stakeholder effort to refine community involvement practices for air traffic modernization projects, including the FAA's national Metroplex program. As the lead author of the noise compatibility program being prepared for the ongoing FLL Part 150 Study, Mr. Sequeira is intimately familiar with community noise concerns and the operational challenges of the South Florida regional airspace.



**Steve Alverson** has over 38 years of experience in quantifying aircraft noise exposure, analyzing noise impacts, and developing noise control strategies for more than 200 airport studies. Mr. Alverson has prepared Part 150 Studies for JFK, LGA, LAW, AUS, Ted Stevens Anchorage International Airport (ANC), Denver International Airport (DEN), Friedman Memorial Airport (SUN), Ohio State University Airport (OSU), and Chandler Municipal Airport (CHD). He also managed the first two 14 CFR Part 161 studies prepared under the requirements of the Aircraft Noise and Capacity Act at San Jose and San Francisco International Airports. Mr. Alverson's career is anchored in leading stakeholder outreach programs that bridge the gap between detailed technical analyses and the effects residents experience on the ground. Mr. Alverson has worked closely with the airlines, pilots, and FAA to understand the operational constraints of existing airspace systems, while looking for opportunities to create win-win situations for all stakeholders.



**Susumu Shirayama** has worked exclusively on noise and vibration assessments for NEPA projects for federal, state, and local governments, and the private sector. His activities have included field surveys, impact assessments using computer based noise models (TNM, AEDT, NOISEMAP, RNM, CadnaA, and SoundPLAN), and technical report preparation. Mr. Shirayama has prepared noise analyses and conducted noise monitoring for Part 150 Studies, concerts, athletic stadiums, general construction activities, residential developments, Federal Highway Administration (FHWA) Noise Technical Reports, Federal Energy Regulatory Commission (FERC) RR9 reports as well as Federal Transit Administration (FTA)/Federal Railroad Administration (FRA) noise and vibration assessments. Mr. Shirayama was responsible for noise contour development for the FLL Part 150 study.

**Sean Burlingame** has experience in a wide array of aviation noise mitigation studies that involve aircraft noise modeling, operational noise abatement flight procedures, airspace utilization, aircraft performance characteristics, and off-airport land use compatibility initiatives. Mr. Burlingame is an advanced user of ESRI ArcGIS software, using geographic information system (GIS) software for aerial photography acquisition, spatial analysis, data rectification, and preparation of documentation graphics. He is an expert user of the FAA's AEDT, and an advanced user of AutoCAD. Mr. Burlingame is well versed in using the AEDT to conduct noise analyses that include supplemental noise metrics; including (but not limited to) Sound Exposure Level (SEL), Maximum A-weighted sound level (LAmax), Time-above an A-weighted sound level threshold (TALA), and Number of Events-above an A-weighted sound level threshold (NALA). His noise modeling experiences have included conducting supplemental noise analyses, including classroom disturbance and probability of nighttime awakenings analyses. He also has thorough experience using NOISEMAP, TNIP, and Adobe Creative Suite, and is capable of integrating all of these programs to assess noise at airports and heliports, allowing him to produce deliverables for certification and report documentation.



**Steve Goetzing** has 14 years of experience in modeling air quality and aviation noise impacts and is an expert at processing large data sets. Mr. Goetzing has a deep knowledge of aviation practices and environmental concepts through preparation of environmental analyses of airspace procedures at over 40 airports across the U.S. including LGA, JFK, Baltimore Washington International Airport (BWI), Minneapolis - St. Paul International Airport (MSP), Hartsfield-Jackson Atlanta International Airport (ATL), Washington Dulles International Airport (IAD), and Boston Logan International Airport (BOS). He has expertise generating air quality emission inventories and noise modeling for airport projects of all sizes and incorporation of these studies into EISs, EAs, and various special studies. Mr. Goetzing is proficient in the use of multiple environmental models including the AEDT, the Aviation Environmental Screening Tool (AEST), the DoD's model of aircraft flight (Nmap), the Rotorcraft Noise Model (RNM), the Emission Factors model (EMFAC), the Environmental Protection Agency's (EPA's) CAL3QHC roadway modeling system, and the Motor Vehicle Emissions Simulator (MOVES).



**Chris Jones** has more than two decades of project management experience, including more than fourteen years of experience in the environmental field as a Project Manager, technical lead, and author of NEPA environmental documentation for various aviation, transportation, land use, and energy projects. He has a depth of experience in evaluating the environmental effects of airspace procedure changes including several FAA Metroplex projects across the U.S. He also has experience in the preparation of Airport Land Use Compatibility Plans for airports. His technical experience includes preparing aviation-related noise, air quality, greenhouse gas (GHG), and land use studies. He has expertise in GIS and experience in the use of various modeling software used for noise and air quality analyses.





**Dharma Thapa** and has more than 20 years of aviation planning experience with expertise in noise analyses, air quality modeling, airfield capacity and delay analyses, airspace planning, forecasting, and simulation modeling. He served on the FAA's Design Review Group for the AEDT and is well versed in its use, as well as the use of its predecessors, the Integrated Noise Model (INM) and the Emissions and Dispersion Modeling System (EDMS). Mr. Thapa worked on the Draft Environmental Impact Report (EIR) for the Specific Plan Amendment Study for the modernization and improvement of LAWA and was responsible for modeling aircraft noise contours and impact analyses, including sleep disturbance from aircraft noise under various north airfield alternatives. He also developed noise exposure maps for Al Ain International, Midway International, Chicago O'Hare International, Detroit Metropolitan Wayne County, and Seattle-Tacoma International Airports. In addition to preparing annual noise contours, he has experience with grid point location analysis, configuration analysis, taxiway noise analysis, aircraft flight radar data processing, and noise monitoring data correlation.

**Stephen Smith** has 22 years of experience conducting and managing environmental impact analyses and planning projects for a wide variety of airport and air traffic assignments. His responsibilities include planning, assessing, and documenting proposed airport and air traffic projects in compliance with NEPA and with relevant FAA guidance. His project management experience includes complex programs and projects involving multiple stakeholders and subcontractors. Mr. Smith served as the Program Manager for another firm contracted to the FAA to support the Metroplex EA for each metroplex site. This program was valued at approximately \$20 million, with multiple site projects operated simultaneously. Mr. Smith received a letter of commendation from the FAA Air Traffic Organization Vice President of Mission Support for his commitment to and successful completion of multiple metroplex EA efforts. During his first tenure at Ricondo, Mr. Smith managed large complex projects, such as the Boston Logan Airport Noise Study and the airfield design concepts/delay-capacity assessment for the Los Angeles International Airport Specific Plan Amendment Study. Both projects occurred in parallel, and the total effort was valued at approximately \$9 million.

### Service Group 3 - Environmental Site Investigation and Rehabilitation

The ESA team has the full suite of services required to assess, design, and remediate environmental issues. Our experienced team of geologists, engineers, and scientists routinely perform comprehensive environmental investigations and risk assessments, develop removal or remedial action plans, and most importantly, have the ability to fully implement those plans. Our specialists stay abreast of the evolving regulatory environment and the latest and most innovative investigation and analytical methods. Serving as a strong client advocate, we bring our knowledge and relationships with regulatory agencies to negotiate the most direct path towards closure. Perhaps most significantly, our experts have direct experience in airport environments. We are knowledgeable of the unique considerations that occur within airports and have the specialized skills and equipment needed to execute effectively within BCAD's operational environment.

Our team's environmental remediation solutions encompass both traditional and non-traditional technologies including design and construction of systems using pump and treat, air sparging, soil vapor extraction, ozone treatment system, multiphase vacuum extraction, bioremediation, soil stabilization and natural attenuation. Non-traditional, innovative solutions that expedite the cleanup progress and minimize long-term liabilities are tailored to match clients' requirements. Team member CEI recently obtained Site Closure for BCAD from FDEP, releasing the site for the construction of a new terminal.

#### AVIATION FUELING SERVICES

- Tank Replacements, Repairs, and Upgrades
- Jet Fuel and Hydrant Piping systems
- Installation of Fire and Cathodic Protection Systems
- Tank Decommissioning and Closure
- Regulatory Compliance
- Fueling Equipment Certification
- Facility Response Plans



#### VEHICULAR FUELING SERVICES

- Engineering Design and Installation of Under- and Above-Ground Storage Tank Systems
- Installation of Above and Below Ground Fuel Transfer Piping and Equipment
- Fuel Facility Design and Build
- Fueling Equipment Certification
- Storage Tank System Repairs, Maintenance, Closure Assessment/Decommissioning, Remediation, and Reporting
- Regulatory Compliance



#### ALTERNATIVE FUELS

- Compressed Natural Gas
- LP Gas
- Biodiesel
- Mechanical Systems Erection
- Mechanical Equipment Installation



#### REMEDIATION

- Contaminated Soil Removal and Disposal
- Remedial Systems Construction and Operation
- Hazardous and Non-Hazardous Waste Handling
- Asbestos Remediation
- Mold Remediation
- Contaminated Site Management
- Brownfield Redevelopment



#### ENGINEERING AND SCIENCES

- Environmental Site Assessment
- Contaminated Site Management
- Environmental Abatement Services
- Brownfield Redevelopment
- Regulatory Compliance and Management
- Civil Engineering
- Spill Prevention Control and Countermeasures Plans
- Natural Resources
- Stormwater



#### CIVIL/HEAVY CONSTRUCTION

- Civil and Concrete Work
- Heavy Construction
- Facility Decommissioning and Demolition
- Earthwork and Paving
- Drainage Utilities
- Mechanical Equipment Installation
- Constructability Reviews
- Construction Claims
- Value Engineering
- Construction Inspection and Oversight
- Engineering Specifications and Standards
- Project Management and Cost Control
- Dewatering/Treatment





**SERVICE GROUP 3 LEAD – MICHAEL BURNS, CHG, CEG, PG, QSD**

**Michael Burns** is a highly skilled and effective Project Manager with more than 30 years of experience in the environmental and geological sciences. Mr. Burns has extensive environmental program management and project-level experience that includes overseeing multidisciplinary on-call services contracts for federal, state, and county agencies. Relevant project types included underground storage tanks, spill investigations and cleanups for fuels and solvents, and surveys for asbestos-containing materials and lead-based paint.

His airport work experience includes serving as the Contract Environmental Compliance Officer (CECO) for the Tom Bradley International Terminal Expansion, Los Angeles International Airport (LAX). LAX expanded and improved the existing terminal facilities, added on an additional facility, added nine new gates, and reconfigured the existing gates, all to handle the new large-capacity jets that can carry as many as 800 passengers. Mr. Burn’s duties included ensuring the implementation of all components of the construction-related environmental requirements. Specific issues included monitoring all construction areas for legacy contamination, and managing the investigation and removal of hazardous materials and waste in several areas with contamination. All cleanups were conducted so as to not interfere with ongoing flight and passenger loading operations in active flight transit areas. Cleanup actions included removing previously-unknown jet fuel spills and undocumented transit (asbestos) water pipes in active plane transit areas.



**Paula Sessions, PG**, Director of Environmental Services for CEI, will provide local Broward County support to Mr. Burns. With over 33 years of experience, Ms. Sessions is responsible for managing staff of scientists and engineers that specialize in the type of services required under this contract. Ms. Sessions has worked extensively with Miami-Dade County and Broward County, specializing in environmental site assessments, tank closure assessments, source removals, methane gas assessments, remedial action design and implementation, and operation and maintenance of long-term remediation systems.



Also supporting this suite of services from CEI will be **Gabino Cuevas, PE, LEED AP**. Mr. Cuevas specific areas of expertise include environmental site audits, underground storage tank management, contamination assessments, initial remedial activities, and remedial system designs and implementation. A Professional Engineer registered in Florida, Mr. Cuevas is also a Leadership in Energy & Environmental Design Accredited Professional (LEED AP).

**Alex Sanchez, PE** has over 25 years of experience in design, construction and construction management with a focus in environmental, fuel systems and civil/heavy construction services. Mr. Sanchez is a P, certified LP Gas Installer “A”, Pollutant Storage System Contractor (PSSC), General Contractor (GC), Underground & Excavation Contractor (CUC) in the State of Florida. Mr. Sanchez has a proven track record for his capabilities in petroleum storage tank environmental services and will be a key team member for that aspect of this contract.



**Amy Twitty, PG** has 30 years of environmental consulting experience and a proven track record in managing large and small Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and Resource Conservation and Recovery Act (RCRA) site investigation and remediation projects for the DoD and commercial clients throughout the southeastern United States. She has prepared and reviewed numerous technical documents including proposals, work plans, sampling and analysis plans, site rehabilitation completion reports, land use control implementation plans, engineering evaluation/cost analyses, action memoranda, remedial investigation/feasibility studies, remedial action plans, human health and ecological risk assessments, and construction completion reports for clients such as the GOAA.



**Ellen Eveland, PE** is a senior engineer with experience providing environmental engineering, consulting, and construction services for government, municipal, and private clients. She is an experienced engineer in the civil engineering field, including field office management, project management, stormwater management system design/permitting and construction, and environmental compliance project management. She has extensive knowledge of federal, State of Florida, and local regulations governing hazardous and solid waste, storm water, storage tanks, hazardous materials, and petroleum contamination. For this contract, Ms. Eveland will primarily provide support for NPDES and Stormwater Pollution Prevention Plans (SWPPP).



**Heidi Rous** has 29 years of experience providing comprehensive permitting, compliance, and planning services specializing in air quality, hazardous materials, and risk assessment. Heidi is highly skilled in quantifying, modeling, mitigating emissions from stationary and mobile sources. She maintains deep expertise with all current applicable modeling tools and is highly fluent with relevant guidance and regulations related to health effects air pollutant emissions. Ms. Rous also possesses extensive experience with permitting of new and modified sources of air pollutants and design and permitting of air pollution control devices at both the point of origin (stack, vent, or fugitive) and point of exposure (including enhanced filtration, monitoring), including Best Available Control Technology (BACT) determinations, emission credit (ERC and RECLAIM) assistance, permit negotiation, and other compliance services.



**Service Group  
4 - Sustainability  
Services**

For decades, ESA has been at the forefront of developing and implementing sustainability initiatives by helping clients eliminate or reduce waste, prevent pollution, conserve natural resources, and plan for climate adaptation and sea level rise. We help airport clients pursue economic growth and development in a socially equitable manner that is sensitive to the environment, ultimately striving to meet the challenges of the present without compromising future growth. Drawing on our vast multi-disciplinary expertise in climate change, energy, water, solid waste, infrastructure planning, and habitat restoration, we help clients navigate their path towards a sustainable future. We pride ourselves on our ability to take a whole-systems view with strategically-aligned sustainability initiatives and organization-wide programs. We will do this by working with BCAD to establish a unified sustainability vision and long-term (5 to 20 years) implementation strategy, which includes the following critical success factors:

- Ensuring alignment on vision, goals, and values;
- Systematically assessing past performance and establishing appropriate metrics and goals;
- Encouraging the right balance of strategy, process, and technical innovation;
- Effectively engaging airport-wide staff to drive change;
- Providing strong program management and communication from our consulting team;
- Identifying funds for desired strategies; and
- Ensuring effective engagement of the capital development team.

**Representative Sustainability Services**

<b>Sustainability Planning and Management</b>	<ul style="list-style-type: none"> <li>• Visioning and goal setting</li> <li>• Strategy development and plan creation</li> <li>• LEED and Envision™ consulting</li> </ul>
<b>Energy Solutions</b>	<ul style="list-style-type: none"> <li>• Energy portfolio management</li> <li>• Energy audits &amp; energy efficiency</li> <li>• Renewable energy analysis</li> </ul>
<b>Materials Management</b>	<ul style="list-style-type: none"> <li>• Procurement optimization</li> <li>• Waste reduction, reuse and recycling</li> <li>• Solid waste management plans and programs</li> </ul>
<b>Natural Resources Conservation</b>	<ul style="list-style-type: none"> <li>• Wildlife Hazard Management Plans</li> <li>• Wetland delineation</li> <li>• Fate and transport studies</li> </ul>
<b>Socioeconomic and Community Support</b>	<ul style="list-style-type: none"> <li>• Economic impact studies</li> <li>• Annual sustainability reports</li> <li>• Community meetings and public outreach</li> </ul>
<b>Air Quality and Greenhouse Gas Emissions</b>	<ul style="list-style-type: none"> <li>• GHG and air quality inventories</li> <li>• Federal grant application preparation and management</li> <li>• Airport Carbon Accreditation</li> </ul>
<b>Surface Transportation</b>	<ul style="list-style-type: none"> <li>• Fleet conversion to alternative fuels</li> <li>• Hybrid and alternatively-fueled preferred parking</li> <li>• Maintaining parking revenues while achieving sustainability goals</li> </ul>
<b>Resilience</b>	<ul style="list-style-type: none"> <li>• Climate adaptation</li> <li>• Continuity of operations</li> <li>• Facilities/asset management</li> </ul>

Coordinating closely with a range of airport operations staff, including facilities maintenance, real estate, design and construction, and airfield operations, we have helped integrate unique and innovative approaches to sustainability in every-day activities across a wide array of airport operations. We have engaged in the development and compliance oversight of green airport rating systems and design and construction standards and we have conducted design reviews for a number of projects pursuing green ratings. Our work has ranged from runway design to airport concessions. We are helping to lead the development of future airport-specific sustainability guidance with the U.S. Green Building Council for its LEED rating system. Our core sustainability services are depicted above.

As sustainability becomes a larger part of our global business landscape, one common flaw is that many airports are setting goals and targets without either a coordinated, organization-wide approach or a system to measure and report on their successes. Our experience is that an airport’s sustainability program will achieve greater success through a consensus-based approach that is carefully planned and where realistic metrics are identified and used to gauge progress. Importantly, we want to ensure that we are constantly aligning our approach to developing a comprehensive sustainability program with the initiatives developed by the County’s Climate, Energy & Sustainability Program, which include maintaining a balanced and integrated approach for all future development and management by ensuring economic stability, environmental sustainability, and social responsibility.

In addition to these steps, we have found that the success of any sustainability plan depends on it not being seen as a static document, but rather as a process that becomes a part of a culture that includes implementing initiatives, monitoring performance, communicating progress, refining performance targets, and continuing with a “Plan-Do-Check-Adjust” cycle.

In an ideal state, a sustainable organization should also be a resilient one, where it possesses the ability to both address its “chronic stressors” prior to them, if left untreated, becoming “shock events” and to “absorb” shock events in a manner that minimizes impacts or disruptions to business continuity. However, very few organizations are both resilient and sustainable; instead, they are one or the other or, in most cases, neither. The figure at the top of the next column depicts the various possible states of organizational sustainability and resilience and illustrates the nexus between the two concepts. Importantly, rather than thinking of sustainability and resilience as two separate and sequential concepts, we view them as being inextricably and intertwined concepts that concurrently develop and evolve at the organizational level.

ESA specializes in the integration of sustainability and resiliency concepts to ensure both the long term viability of critical airport infrastructure and the ability



to maintain continuity of airport operations. Airports are facing unprecedented challenges and pressures to effectively manage costs, which forces airport facilities and asset managers, who are on the front lines of the battle for organizational resilience, to engage in a day-to-day tug-of-war between the value they are seeking to deliver and the obstacles that get in their way. Implementing a sustainable asset management program can ultimately help airports reduce costs, deliver increased value, and enhance operational resilience.

Asset management discussions are often centered in the realm of condition assessments and replacement planning and managers are usually adept at evaluating and cataloging the state of their infrastructure and equipment. Unfortunately, this is not always consistent with long-term strategy development and sustainable solutions associated with organizational resilience. Often, the underlying issue is that facilities are not being properly maintained, systems are used inefficiently, or tools are being used for something other than for what they were originally designed. Rather than blaming a lack of adequate maintenance staff, for example, it may be more appropriate to look at organizational priorities to ensure that the consequences of allocating scarce resources are fully understood by all levels of management.



It is with this understanding that we apply an approach that uses a combination of Lean principles and tools and technical expertise to help airport sponsors transition from individual projects to a systematic, process-oriented approach to sustainability and resilience, which includes the following principles:

- **Effective use and integration of data, data management systems, and operational processes is essential.**

In our experience, even the most sophisticated organizations struggle to advance from data and information collection to making it meaningful and actionable for strategic decisions. We can apply our Lean consulting services to both improve processes associated with use of various software tools and the roll-out of such tools. We are technology-agnostic—the right process will produce the right results, and the software is only a tool. Importantly, our Lean-based management processes can help organizations overcome the “paralysis” often associated with having copious and meaningful data, but not organized and presented in a manner suitable for effective executive decision-making.

- **Effective stakeholder engagement is critical.** We have found that extensive stakeholder involvement is critical to achieving a meaningful interpretation of the information collected. Stakeholders can include senior executive staff, facilities managers, planners, administration, maintenance staff, and airport tenants. Even with the most well-intentioned plan to involve stakeholders and gather their input, the lack of a well-designed process to seek and receive this input can cause the engagement process to be cumbersome and counter-productive. For example, it is not uncommon for the engagement process to involve senior management telling the front line managers what is important, rather than finding out what is truly important and relevant for the front line staff. It is only when all stakeholders find common ground and understanding that an effective and meaningful engagement process can succeed.

- **Direct observation and engagement.** A unique aspect of Lean strategy development (compared with traditional planning efforts) is the process by which we collaboratively understand and learn from your current state. Beyond updating baseline inventory information, we also conduct a qualitative assessment with your staff of the various programs, activities, and processes that contribute to your existing sustainability performance in each of the main areas (energy, water, waste, sewer, and carbon emissions). This Lean planning concept of direct observation and engagement with people closest to the work will ensure that the future strategy and project implementation ideas are informed by the root causes of past success and challenges. In our experience, the obstacles people have faced in achieving the results they were seeking are often not technical in nature. For example, an airport-wide GHG emissions inventory should look beyond simply equating fuel consumption to carbon emissions and setting overarching, and possibly unattainable, reduction targets without truly understanding the nature of how and where fuel is being consumed and basing targeted reductions on practical considerations, such as feasibility and cost effectiveness.

These practical considerations are often only realized after talking with the front line managers. Our approach is robust, flexible, and proven to be adaptable to the unique needs and culture of airports. This whole-systems approach ensures that people with diverse expertise and knowledge (both within the organization and outside technical experts) can see how seemingly discrete activities are and should be connected. For example:

- Stormwater management programs should be directly linked with water conservation and climate action planning efforts, particularly as they relate to future sea level rise and other climate adaptation issues; and
- Energy management, energy efficiency, and renewable energy must be tied together with maintenance programs to ensure you achieve the optimal benefit of the systems you install and to find ways to eliminate and reduce energy consumption in the first place.

**SERVICE GROUP 4 LEAD – NEAL WOLFE, JD, SFP**

**Neal Wolfe** has more than 15 years of experience in Lean consulting, airport asset and facilities management, airfield, air quality, noise, environmental, sustainability, resilience, and energy planning. He has extensive experience in air quality and noise modeling, developing sustainability management plans, and preparing state and federal environmental grant funding opportunities. He is also highly experienced in performing geometric glint and glare studies related to solar photovoltaic arrays, developing new and analyzing existing aircraft arrival and departure procedures, and solving environmentally-based scientific and legal problems. Mr. Wolfe's diverse experience with successfully negotiating a wide variety of airport-related technical, organizational, and relationship challenges makes him ideally suited to lead large and complex planning projects. Most recently, Mr. Wolfe served as the Program Manager for the Facilities, Asset Management, and Sustainability contract with the City of Atlanta, Department of Aviation.



**Jeff Caton** has three decades of planning, engineering, and business management experience and specializes in climate change and other sustainability issues. Mr. Caton helps clients develop and manage their sustainability and climate change initiatives through strategy development, benchmarking, performance measurement, and various communications media. His project management experience includes Climate Action Plans (CAPs), Sustainability Master Plans, Climate Change Adaptation Plans and all aspects of GHG emissions management including evaluation of carbon-related risks and opportunities, carbon footprint analysis, carbon market analysis, GHG inventory design and development, emissions quantification, reduction strategies, public reporting, and verification. He is particularly adept at assessing environmental and sustainability performance and communicating that performance to stakeholders, as well as aligning sustainability goals with organizational strategy. Mr. Caton led the development of CAPs for the cities of Riverside, Richmond, Pleasanton, Ukiah, Hughson, Oakdale, Delano and Oxnard, and a regional Energy Action Plan project for multiple jurisdictions in Kern County.



**Jeff Covert** has experience supporting aviation clients across the nation in the implementation of low-emissions projects and sustainability initiatives. He takes a whole-systems approach to co-create a shared direction, seek to understand how stakeholders and their actions are collectively connected, and foster productive collaboration across organizational boundaries to reach common sustainability goals. He has successfully used this approach at airports across the country to help deliver outcomes across multiple dimensions of sustainability, from reduced emissions to improved resilience and culture change. As a result of his work, airport sponsors have embraced sustainability as a mechanism that not only improves environmental quality but enhances airport operations, reduces costs, and enriches the surrounding community.





**Sarah Hamoui** has worked as a consultant for some of the largest entities in the Southern U.S., including ATL, MCO, Dallas/Fort Worth International Airport (DFW), and Orange County Convention Center. Ms. Hamoui has advised clients on how to achieve sustainability goals within their budget, operational capacity, and stakeholder commitments. Ms. Hamoui has been responsible for the direct implementation of client sustainability programs, including Zero Waste initiatives. Ms. Hamoui’s work includes the management and development of sustainability plans and scorecards that measure environmental performance. She successfully administered six Leadership in Energy and Environmental Design (LEED) projects for aviation and private clients. Ms. Hamoui has collaborated with industry professionals, including the United States Green Building Council (USGBC), to develop an airport-specific LEED rating system and to share industry best practices. At J|D, Ms. Hamoui provides project management support to ATL for various waste minimization activities to assist in achieving a goal of Zero Waste. She also provides support to assist with LEED Certification, EcoDistrict Certification, solar photovoltaic panel feasibility analyses, and energy analyses. Ms. Hamoui manages Envision certification efforts and sustainability construction tracking for projects with Detroit Metropolitan Wayne County Airport. Ms. Hamoui is working to co-facilitate and manage a waste stakeholder engagement meeting for Philadelphia International Airport (PHL) to discuss challenges and solutions to increase PHL’s waste diversion. Further, Ms. Hamoui is currently engaged in work for the FAA.



**Yvonne Garth** is respected throughout the construction and engineering community for providing diverse services to national, local, private, and public entities in all aspects of business development, marketing, advertising, public relations, economic development, outreach, diversity consulting, and more. Yvonne also served as Chair and Board Member for the Broward County Small Business Advisory Board, and as a Board Member to the Miramar Cultural Arts Trust.

## Service Group 5 - On-Call Program Management Services

The ESA team was built to provide comprehensive program management services in Environmental Planning and Acoustical services to BCAD. Our Project Manager, Julie Sullivan, has access to the depth of knowledge and resources of the entire team allowing us to serve as an extension of staff with the ability to support development of an efficient and effective environmental program and scale program support to meet each specific task assignment. We've compiled a program management team comprised of industry leaders that will provide BCAD with access to the highest level of expertise that will be customized to each assignment. Though we have significant depth and breadth of capabilities at our disposal, we have a simple organizational plan (Section 2) that will assure all assignments are staffed, scoped and managed rigorously in accordance with our quality assurance and controls. We promote frequent communication and early identification of issues that allow us to address and resolve any concerns quickly. Our team have proven experience in all aspects of environmental program management ranging from program development to tracking and reporting to construction phase and compliance support. We routinely serve as "owner's representative" to review work products developed by other firms and work collaboratively with firms throughout the industry. As demonstrated through our work on the FLL Part 150 Study, we routinely lead or provide support for internal and external briefings, meetings and presentations at all levels of BCAD, and to municipalities, elected officials, agencies and stakeholders.

**Facilitation for Results.** ESA will provide skilled facilitators with experience and expertise in creating alignment, cooperation and working through conflict. Our facilitators combine technical acumen with Lean knowledge to generate results for our clients—we can bring a unique understanding and firsthand experience. Lean provides approaches to systematically and objectively, in a non-blaming fashion, focus on identifying what process problems are leading to the conflict and what concrete actions can be taken to resolve those problems.

With Lean thinking embedded into the core of what we do, we pride ourselves in delivering high-value projects that, at the same time, cumulatively save our customers

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At its core, Lean is a philosophy that focuses on delivering value to customers in the least wasteful and most effective way and with an unwavering respect for people. Lean can be thought of as a way to deeply articulate vision and goals, identify waste in processes, systematically understand the obstacles that get in our way, and then learn and work with leaders, managers, boots on-the-ground staff and external stakeholders to solve complex problems.

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millions of dollars. Our rigorous Plan-Do-Check-Adjust Process ensures that we deliver exactly what our customers are looking for the first time around, on time and within budget.

**Critical and efficient decision-making.** The program manager and all Task/Project Managers will rely on several techniques and approaches to ensure efficient decision-making permeates all aspects of project execution. One of the most important decision-making tools that management staff will use is "choosing by advantages" or CBA. We use the Lean-based CBA system to simplify, clarify and unify the art of decision-making. CBA is a way for our team to explore solutions and measure them based on an advantage, e.g., a difference between the attributes of two alternatives. CBA is frequently used in the design and construction phases of a project, but is easily adaptable to any discipline, including the services proposed herein, where a single decision must be made based on any number of potential alternatives. CBA makes it easy to see which solution best aligns with the client's value and is a countermeasure to one of the greatest inefficiencies in any project, the time it takes to reach consensus.





**SERVICE GROUP 5 LEAD – JULIE SULLIVAN, MS**

For this type of contract, Program Management is an extension of the overall Project Management. For that reason, **Julie Sullivan** will serve as lead for this service group in addition to her role as overall Project Manager. This team has been assembled with environmental program management in mind and the understanding that there is a potential to support BCAD with the full range of services, including in-house staffing support, if requested. Ms. Sullivan has managed many similar contracts throughout her career and is well-versed in the need to be nimble and flexible, anticipating client needs and proactively assuring the appropriate resources are available. While the program management assignments will likely include elements of, and therefore expertise from, the other four service groups, there are a number of specialized staff that are key to our proposed Program Management Services team.



**Mike Leech** has over 18 years of experience managing and leading large information management, application development and data visualization projects for sustainability planning, permitting and natural resource applications. Mr. Leech brings the full capabilities of his team of technical experts to this contract for BCAD. ESA’s talented team of data analysts, designers, developers, and engineers work closely with project teams to capture and transform highly complex data sets into usable information that enhances and clarifies audience understanding for a variety of project types. Whether developing a custom application to capture field data, designing a website to convey pertinent project findings to the public, or developing a new tool, ESA is on the forefront of this emerging field. Recently, ESA developed a customized environmental compliance and reporting system for LAWA that will streamline monitoring and data collection, automate the reporting process, and provide LAWA with a compliance tool to integrate and manage existing and future projects.

**Robert Ori** brings his skills in identifying, developing and implementing state of the art computer technology applications to support this contract. Mr. Ori and PTI routinely provide three dimensional modeling, simulation, GIS, web-enabled applications, wireless applications development and high end computer generated graphics to their myriad of airport clients. Additionally, with numerous years of experience in airfield and airspace planning and analysis, Mr. Ori has developed a number of airport tools including the Three-Dimensional Airspace Analysis Program (3DAAP), Interactive Airport Layout Plan (iALP) system and the Interactive Airfield Assistance Tools (iAAT).

**Doug DiCarlo** has 25 years of experience providing aviation planning studies, environmental documents, and airfield design projects. His expertise in Capital Improvement Programs (CIP), including environmental studies, airfield analyses, landside facilities, airside/landside capacity, land acquisition, land use compatibility, airport zoning, financial planning, and economic development will be key in supporting Project Life Cycle Management and CIP Tracking and Reporting. Mr. DiCarlo has extensive experience with program management, currently supporting the FDOT Airports Office managing ESA's Statewide Aviation Consultant Support Contract.



**Yvonne Garth** brings her unique expertise in Outreach and Stakeholder Collaboration to support BCAD under this contract. Ms. Garth has served as Chair and Board Member for the Broward County Small Business Advisory Board, and as a Board Member to the Miramar Cultural Arts Trust and has been actively involved in both the Part 150 Study and MPUs at FLL. As a proven advocate for the communities in which she works, she earned the distinction as one of the Diversity Plus Magazine's national "Woman of Power" in 2009 and is featured in many trade and local South Florida newspapers. Yvonne was formerly recognized by Legacy Broward as one of the 50 most influential African-American business leaders in Broward County in 2014.



**Peter Byrne** brings national and international experience in facility planning, financial consulting, and NEPA environmental analysis for airports of varying size and function. He has a total of 25 years of experience that spans both the public and private sector. He is a Certified Member of the American Association of Airport Executives, and brings unique experience related to airfield and aircraft operations, air cargo, aircraft maintenance, and capital development funding strategies. Mr. Byrne has a demonstrated track record of working closely with local, state, and federal agencies including the FAA. With his core base of experience in the public sector, Mr. Byrne possesses a strong understanding of the airport operator's requirements. He uses his understanding of complex planning and environmental issues to assist airports and private developers with strategic decision making to support capital programs.



**Pete Ricondo, PE**, brings more than 20 years of comprehensive experience in airport planning, programming, and conceptual design to the ESA team. He has served as Project Manager for several master planning projects, including a Strategic Master Plan and Business Plan for Palm Beach International Airport; a Systemwide Master Planning Study for the Palm Beach County Airports (including Palm Beach International and three general aviation airports); and the MPU for TPA. Mr. Ricondo also served as the Aviation Activity Forecasts Task Manager for the Master Plan for O'Hare International Airport (which resulted in the definition of the O'Hare Modernization Program). The forecasts prepared by Mr. Ricondo formed the basis for the facility requirements incorporated in the Master Plan and subsequently used in the EIS prepared for the O'Hare Modernization Program. He served as Officer-in-Charge for the MPUs for Sarasota-Bradenton International Airport and Jacksonville International Airport.





## 1.2: Project Manager – Julie Sullivan

ESA's Project Manager for this contract, Julie Sullivan, has 20 years of airport environmental experience, primarily focused on Florida airports. Ms. Sullivan serves as a "trusted advisor" to her airport clients on the full range of environmental issues, routinely providing the full range of environmental support through dozens of on-call contracts. Her clients rely on the fact that no matter the issue, they know Ms. Sullivan will get them to the solution. A former regulator, her relationships with the state agencies, USACE, and numerous others allows her to facilitate expedited project review and approvals for her airport Clients. A respected expert, Julie is actively engaged in the evolving regulatory climate and is heavily involved in ongoing policy updates, agency actions, and rulemaking.

Because of the nature of this contract, Ms. Sullivan will be supported by leads in four of the five scope service groups, and will lead the Program Management services herself. The leads selected are team members that represent the highest level of expertise in their area of specialization. Ms. Sullivan will primarily dedicate herself to overall contract management and the Program Management element of the scope, though this will vary based upon the number and type of task orders assigned. These management services are anticipated to be the most consistent and ongoing assignments and where Ms. Sullivan has managed similar contracts, they represent the primary need for the Project Manager's time and attention. For the four other categories, Ms. Sullivan will work with the leads proportionately to the task assignments underway, but will be in communication with each weekly, at a minimum.

## Julie Sullivan, MS

### Southeast Regional Director

Julie is a regulatory specialist with more than 20 years of relevant professional experience and a FAA Qualified Airport Wildlife Biologist. She has provided the full range of environmental services from planning through design, construction and post-construction compliance for numerous airport projects. Julie is experienced in providing comprehensive NEPA, wetland, listed species, mitigation, wildlife, and environmental permitting services. A former regulator, her relationships with the state agencies, USACE and numerous other regulatory agency staff allows her to facilitate expedited project review and approvals for her airport Clients. Julie is actively engaged in the evolving regulatory climate and is heavily involved in ongoing policy updates, agency actions, and rulemaking. She provides regulatory, wildlife and NEPA services for clients including MDAM, Treasure Coast International Airport, GOAA and others.

### Relevant Experience

**Lakeland Linder Regional Airport (LAL), Lakeland, FL.** *Project Director.* Julie provides programmatic environmental support to LAL for the full range of environmental services including: wetland delineation, permit compliance, mitigation planning and implementation, wildlife hazard assessment and management, listed species services, regulatory coordination, NEPA compliance and other as-needed support. Example projects include the implementation, maintenance and monitoring of three onsite wetland mitigation projects, the NEPA compliance EA for a new Intermodal Facility, permitting and compliance for the Intermodal Facility, NEPA and permitting for a new Air Traffic Control Tower, gopher tortoise relocations, permitting and mitigation strategy, and a variety of other projects. Julie supported the WHA, WHMP and supports the ongoing WHMT at LAL.

**North Palm Beach County General Aviation Airport (F45) Runway Extension, West Palm Beach, FL.** *Project Director.* Julie is leading the NEPA EA, agency coordination and permitting for a runway extension (to 6000-ft) at F45. An important reliever airport to Palm Beach International, F45 has sought to extend the runway for more than 20 years. Recent approval of an interlocal agreement with neighboring communities has allowed the project to move forward. ESA successfully demonstrated the need and received approval of the project justification from the Orlando ADO. The EA will include the runway extension, a new air traffic control tower site, and various other airfield and roadway improvements.

**St Petersburg - Clearwater International Airport (PIE), Clearwater, FL.** *Project Director.* Julie and her team are completing the EA for the redevelopment of the Aircor former golf course property at PIE. As one of the last large undeveloped parcels in Pinellas County, the parcel is a prime location for economic development and both aviation and non-aviation uses. Julie is also supporting the airport's ESA led master plan update and provides on-call environmental services to PIE.



#### EDUCATION

M.S., Biology, University of Central Florida

B.S., Zoology, University of Florida

#### 20 YEARS OF EXPERIENCE

#### CERTIFICATIONS

National Pollutant Discharge Elimination System (NPDES) Inspector and Trainer

FAA Qualified Airport Wildlife Biologist



## Julie Sullivan *Resume Continued*

**(ZPH) Runway Extension EA, Zephyrhills, FL.** *Project Director.* ESA is leading the NEPA EA for a runway extension at ZPH. This project has significant political attention and support and is being pushed for fast-track approval through the Orlando ADO.

**Umatilla Regional Airport (X23) Runway Extension EA, Umatilla, FL.** *Project Director.* Julie and her team are supporting the NEPA EA for a runway extension at X23. The project justification has been approved and ESA is developing the EA for review and approval through the Orlando ADO.

**Hillsborough County Aviation Authority (HCAA), Tampa, FL.** *Project Director.* In support of this General Engineering Consultant (GEC), Julie provided as needed environmental services in support of four airports in the HCAA system. Tasks included managing the Wildlife Hazard Management program and Training for Tampa International Airport, facilitation of the TPA Wildlife Hazard Working Group, managing the mitigation and nuisance species compliance activities at Tampa Executive Airport, and other as needed assignments. Currently Julie is leading the NEPA compliance, permitting and construction phase services for the Runway 5-23 Runway and Taxiway E Rehabilitation and Airport Safety Tree Clearing project.

**(APF), Naples, FL.** *Environmental Lead.* Environmental scientist supporting the airport on-call and numerous other projects with a myriad of environmental compliance and permitting services. Typical projects include the west quad pond, Taxiway D extension, midfield drainage improvements, and the ESA-led airport MPU. ESA was also recently selected for a noise-on call and to lead a new Part 150 study.

**Sarasota Bradenton International Airport (SRQ), Sarasota, FL.** *Project Director.* Julie led the 12-month wildlife hazard assessment and follow on wildlife management plan update for SRQ. Currently she is leading the environmental support for the airport-wide master drainage plan update including NEPA compliance through the Orlando ADO and permitting through SWFWMD and the USACE.

**Punta Gorda Airport (PGD), Charlotte County, FL.** *Project Director.* Julie is supporting the permitting and mitigation for removal of wetlands across the Air Operations Area (AOA) at PGD. Tasks include wetland delineation, permit strategy, agency coordination and mitigation planning and support.

**MDAD, Miami, FL.** *Project Director.* Julie provides as needed environmental services in support of ESA's environmental on-call with MDAD. She recently completed WHAs and WHMPs at two of the MDAD airports, Opa Locka (OPF) and Miami Executive (TMB).

**SJU, Carolina, Puerto Rico.** *Project Director.* Julie is leading the NEPA EA for airport wide safety improvements which includes ROFA and TOFA clearing and improvements to all drainage channels and structures.

**GOAA, Orlando, FL.** *Project Director.* Julie led the NEPA coordination through FDOT District 5 for the extension of Lake Nona Boulevard from Medical City to Boggy Creek Road. This is part of the multi-modal hub being developed at the Orlando International Airport which will incorporate rail and other transit options. Julie also provides as needed environmental services in support of ESA's subcontract with the general consultant for GOAA. Projects include wetland evaluations, NEPA support, listed species reviews and a variety of other services.

**SUA On-Call Environmental Consultant, St. Petersburg, FL.** *Project Director.* As subconsultant on this GEC contract, ESA is responsible for the environmental support for projects at SUA. Julie will serve as lead scientist for regulatory permitting, environmental clearances, and other "as needed" environmental support for projects at the airport. Julie recently completed the Stormwater Pollution Prevention Plan (SWPPP) update and WHA for SUA and is currently supporting a WHMP and training as well as coordinating the update and revisions to the airport's Preserve Area Management Plan.

**Airports Cooperative Research Program (ACRP), Transportation Research Board (TRB), National Academy of Sciences, Principal Investigator for Project 11-02 Task 21: “Innovative Airport Responses to Threatened / Endangered Species”.** *Project Director.*

Julie served as the Principal Investigator for this ACRP research project which involves the development of a Primer to provide airport owners and operators with practical information specific to addressing federally listed species issues on or near airports. It is also intended to provide regulators, stakeholders, environmental groups, and the public with information on the unique challenges airports face in order to comply with potentially conflicting environmental and safety regulations.

**Aerostar Airport Holdings, LLC, SJU, San Juan, Puerto Rico.** *Project Manager.* Julie led the recent Environmental Assessment for the airport-wide Drainage Improvements and Runway Object Free and Taxiway Object Free clearing at SJU. This large multi-faceted NEPA compliance effort was successfully approved by the FAA Region (Atlanta) facilitating this important safety project.

**OMLB, Melbourne, FL.** *Project Director.* Julie provides as-needed environmental support and led the NEPA evaluation (CatEx and EAs) for multiple development projects at MLB. Julie also supported the ESA led master plan update and Part 150 studies for MLB.

**Flagler County Airport, Flagler County, FL.** *Project Director.* Julie and her team secured a binding wetland jurisdictional determination from the SJRWMD and supported the NEPA Environmental Assessment for the Runway Safety Area Improvements (Runway 6-24) and all permitting and mitigation for the Runway Relocation (11-29) at FIN. She has conducted several additional NEPA compliance actions and reevaluations, and is providing permit compliance, GIS mapping, planning support, mitigation planning (including grant support), and wildlife hazard services for the airport under this general services contract. Currently Julie and her team completed a 12-month wildlife hazard assessment (WHA) for FIN and recently submitted the Wildlife Management Plan (WHMP) to the Orlando ADO.

**Albert Whitted Airport (SPG), St. Petersburg, FL.**

*Project Director.* ESA is responsible for environmental support for projects under the general services contract at SPG. Julie provides regulatory permitting, environmental clearances, wildlife hazard management and “as needed” environmental support for this on-call contract. Julie completed the 12-month WHA at SPG and a feasibility study for a runway extension at the airport. She is currently supporting the airport’s master plan update.

**FPR, St. Lucie County, FL.** *Project Director.* In support of this GEC, Julie leads the environmental services for FPR including permitting, regulatory compliance, SWPPP compliance activities and other as-needed services. She recently completed a comprehensive environmental and planning study for a 400 acre parcel the airport is seeking to develop along the northern boundary of FPR property.

**Sebastian Airport (X26), Sebastian, FL.** *Project Manager.* Julie provided permit and compliance support for two development projects at Sebastian Airport. This included wetland determinations, listed species review and agency coordination.

## Julie Sullivan *Resume Continued*

**Relevant Experience – Prior to work at ESA FPR Runway and Taxiway Environmental Support, St. Lucie County, FL.** *Environmental scientist* responsible for NEPA compliance and environmental permitting for a new runway and associated structures at FPR. This project involved the design and construction of a new parallel runway (9L-27R), the associated parallel taxiway system, and a new perimeter road. Intended for the use of aircraft conducting general aviation training operations, the improvements consist of an ADG II 4,000-foot runway, a 4,000-foot parallel taxiway, and four associated taxiway connectors. Permitting was complicated, requiring coordination with the SFWMD, FAA, ACOE, St. Lucie County, US Fish and Wildlife Service, FL Fish and Wildlife Conservation Commission, Ft. Pierce Farms Water Control District, and other interested parties. Because the mitigation proposed in the original EA and FONSI was not viable or sufficient, mitigation options for this project were limited. Significant experience, negotiations, and outside-the-box thinking were required to secure a permissible mitigation strategy for the projects. Cooperation with permitting agencies and innovative strategies led to the successful permitting of this project. In addition to permitting, this project required coordination with the FAA to secure a re-evaluation of the FONSI. The original environmental assessment did not address the line-of-sight clearing required for the new runway for observation from the existing air traffic control tower, Julie facilitated expedited reviews and coordination to secure this authorization and re-validate the EA document and FONSI.

**Leesburg International Airport (LEE) Environmental Permitting and NEPA Compliance, Leesburg, FL.**

*Julie Provided comprehensive environmental services for the EA of the proposed runway expansion, safety area improvements, taxiway extension and lighting improvements. Julie was able to effectively eliminate the majority of secondary wetland impacts, saving the Airport hundreds of thousands of dollars while securing a “finding of no significant impact” (FONSI) and the State (SJRWMD) and Federal (ACOE) construction permits.*

**LEE Environmental Permit Compliance and Mitigation Implementation, Leesburg, FL.** Julie was hired by the Airport Director to *implement a mitigation plan* designed by another consultant for impacts associated with the Airport’s recently permitted aircraft rescue and firefighting (ARFF) facility. The offsite mitigation project included preservation and enhancement of an area adjacent to Lake Denham in Lake County.

**Sebring Regional Airport General Engineering Consultant Services, Sebring, FL.** *As lead environmental scientist* for this continuing services contract, Julie’s duties included wetland delineation, environmental resource permitting, listed species surveys and permitting, FAA environmental compliance, hazardous wildlife reporting and compliance, permit compliance, mitigation planning and implementation, and NEPA compliance

**Bob Sikes Airport Improvements, Crestview, FL.** Julie was responsible for *performing wetland determinations and agency verifications* as well as listed species surveys and reviews for the Bob Sikes Airport in Crestview, FL. Provided environmental permitting services as required for improvements at the Bob Sikes Airport. This included design and approval of compensatory mitigation for projects with wetland impacts.

**Air Traffic Control Tower (ATCT) NEPA Compliance, SPG, St. Petersburg, FL.** *Led the NEPA coordination and preparation of the environmental assessment and FONSI* in accordance with FAA Order 1050.1E, for the relocation of an existing ATCT at the Airport. The Proposed Action consisted of the construction, operation and maintenance of a new 88-foot high ATCT located approximately 250 feet to the east-northeast of the existing ATCT.

**Cape Canaveral Air Force Station (CCAFS) Environmental and Archaeological Assessments, Economic Development Commission (EDC) of FL’s Space Coast, FL.** Responsible for *providing NEPA compliance activities* for the CCAFS through a contract with the EDC. The activities were related to an enhanced use agreement transaction between the Air Force and the Canaveral Port Authority.

## Michael Arnold, LEED AP

### Senior Vice President

Mike has 30 years of aviation planning, noise, and environmental project experience at more than 120 domestic and international airports. He has prepared long-term development programs for more than 25 airports ranging from single runway general aviation airports to large commercial service airports. He has also prepared numerous forecasts, facility requirements analyses, project definition/justification studies, and has participated in airport/aircraft compatibility analyses for more than 60 airports. Mike has managed and supported more than 50 airport noise and land use related studies, and has participated in and led a number of controversial environmental studies for a wide range of projects including new runways, new terminal configurations and major airfield reconfigurations. His extensive noise experience involves virtually every possible type of noise and operational related issue at many of the busiest and most complex GA and commercial passenger airports in the world. Mike is an active leader in aviation industry groups and regularly moderates, speaks, and facilitates discussions on a wide variety of industry issues including sustainability/“green airports,” land use compatibility, forecasting, emerging issues in noise and 14 CFR Part 150 studies, integration of planning and environmental processes, and the changing needs of airport planning.

### Relevant Experience

**LGA 14 CFR Part 150 Study, NY. Technical Director.** Leading the implementation of the first ever 14 CFR Part 150 noise and land use compatibility program for this very busy commercial service airport in a heavily urbanized area. As New York City’s “downtown” airport, LGA functions in an extremely complex land use and airspace operational environment. Mike is not only responsible for the technical implementation of the study, but plays a lead role in public and stakeholder outreach through 18 Technical Advisory Committee meetings and numerous public workshops. As part of one of the most complex noise evaluations ever undertaken, this project includes extensive coordination with the airlines, and the FAA Airports and Air Traffic divisions at the local, regional and national levels.

### JFK 14 CFR Part 150 Noise & Land Use Compatibility Study, New York, NY.

*Technical Analyst.* Mike is assisting in preparing the 14 CFR Part 150 Noise and Land Use Compatibility Study for John F. Kennedy International Airport (JFK). The study is the first ever undertaken for JFK and comes at the direction of the Governor of New York in response to community concerns. Key issues include concerns about nighttime and early morning activity associated with the high level of international and cargo activity operating at this slot-limited airport. The project includes an extensive land use data collection effort of numerous surrounding jurisdictions and reclassifying those uses in a consistent framework to allow evaluation of impacts. It also included an extensive housing stock analysis for the purposes of defining a large scale residential sound insulation program. The project includes involvement of an extensive FAA support team including FAA’s airports, air traffic, legal and communications’ staff.



#### EDUCATION

B.S., Civil Engineering, Michigan State University

#### 30 YEARS OF EXPERIENCE

#### CERTIFICATION

USGBC LEED Accredited Professional

#### PROFESSIONAL AFFILIATIONS

American Society of Civil Engineers (ASCE)

Airports Council International – North America (ACI-NA)

Airport Consultants Council (ACC)

FL Airports Council (FAC)

ACC Board of Directors (2008-2012)

ACI-NA Operations and Technical Affairs Committee Steering Group (2007-2009)

## Michael Arnold *Resume Continued*

**FLL Part 150 Study Update, FL.** *Project Manager.* Mike is overseeing all aspects of the 14 CFR Part 150 Noise and Land Use Compatibility Study for FLL. The study is evaluating the new operational conditions at the airport stemming from reconstruction and expansion of the south parallel runway. This controversial project resulted in operational changes that not only affect the communities off the ends of the new runway, but also the existing runway. Measures include noise abatement strategies, a new sound insulation program and numerous programmatic measures. The project is one of the largest noise studies ever undertaken in the southeastern U.S.

**GOAA, Residential Sound Insulation Program, FL.** *Program Manager.* Mike oversaw the implementation of MCO's first residential sound insulation program. This effort included coordination of the program design, contract documents, bidding, implementation and construction for the sound insulation of 24 homes. The program included new windows, doors, HVAC and ventilation upgrades. In implementing this project ESA was also responsible for pre and post construction acoustical testing to ensure noise reduction goals were met. This included establishing the noise measurement protocols and carrying out the sound measurements. These protocols are tailored specifically to each home and are a key element in ensuring that the before and after noise samples are collected and recorded in a consistent manner.

**ATL Part 150 Update, GA.** *Technical Analyst.* Mike supported various aspects of the HJAI Part 150 Update, including the development of the land acquisition program to address residential units located within the 2007 70 DNL contour. The land acquisition program included 876 residential units located on 78 acres with an estimated acquisition cost of \$35 million. An additional 3,372 residential units, three daycare centers, 16 churches and one retirement/health facility located within the 65 DNL contour were recommended for sound insulation.

**GOAA, Shenandoah School Sound Insulation, FL.** *Program Manager.* As part of its on-call noise services for the GOAA, ESA oversaw the program design and contract document phase for the implementation of Orlando International Airport's first school sound insulation program. This project, scheduled concurrent to a major school remodeling and expansion, included coordination between the GOAA and the Orange County Public Schools (OCPS). In this case, OCPS lead implementation of the project through a letter of agreement with GOAA. Initial site investigations indicated a number of sound infiltration issues and the potential for a number of air quality problems. The project included replacement of windows, exterior and interior doors, roof and mechanical equipment modifications. The project was phased over two summers to minimize impact to school operations.

**Orlando Executive Airport (ORL) FAR Part 150 Noise and Land Use Compatibility Study, FL.** *Technical Analyst.* Mike supported an update to ORL's Part 150 Noise and Land Use Compatibility Study. The study reconfirmed the five noise zones established around the airport as part of an earlier Part 150 that ESA Airports prepared. The five zones encompass the 55 DNL and greater noise contours and the peak noise-level contours around the airport. The resulting overlay zones established permissible land uses, requirements for sound insulation, aviation easements, and notification requirements for new development. Other recommendations resulting from the study include modification of the current helicopter flight tracks to and from the north, acquisition of additional noise monitoring equipment, and a pilot information program.

## Steven Alverson

### Senior Vice President

Steve has over 38 years of experience in quantifying aircraft noise exposure, analyzing noise impacts, and developing noise control strategies for more than 200 airport studies. He brings substantial experience in the management and preparation of FAR Part 150 and FAR Part 161 noise studies, public meeting facilitation, residential sound insulation programs, noise elements for airport master plans, noise monitoring system design projects, public involvement programs, environmental impact assessments, litigation support, and expert testimony. His experience includes management of the first two FAR Part 161 studies prepared under the requirements of the Aircraft Noise and Capacity Act at San Jose and San Francisco International Airports. As a result of Steve's extensive experience in the field of aviation noise, he is frequently asked to speak at national and international conferences. He has also provided college-level lectures on aircraft noise analysis and land use compatibility.

### Relevant Experience

#### **JFK Airport Runway 31R-13L Rehabilitation Project Environmental Assessment (EA) Technical Noise Study.**

*Project Director.* Steve directed the preparation of the Technical Noise Study for the Runway 31R-13L Rehabilitation Project EA. ESA used the FAA-approved AEDT to assess the change in aircraft noise exposure that will result from changes in runway use from the implementation of the project improvements. Steve oversaw the preparation of the Technical Noise Study that was included as an appendix in the EA. The FAA issued a FONSI and Record of Decision for the project.

#### **Seattle-Tacoma International Airport (SEA) On-call Noise Consulting Services.**

*Project Director.* Steve is overseeing ESA's technical work on the On-call Aviation Noise Consulting Services assignment for the Port of Seattle. ESA's initial assignment included analyzing the altitudes of aircraft on approach to SEA over a period of several years to determine if any changes have occurred. The results were documented in a PowerPoint presentation and presented by Steve at two Highline Community Forum meetings. Steve was also asked to prepare and present two "Aircraft Noise 101" presentations to the City of Sea-Tac and the general public, respectively.

**Sacramento County Department of Airports On-Call Noise Support.** *Project Director.* Steve has provided aviation noise consulting services to Department of Airports since 1990. His work for the Department of Airports has covered a wide range of services including, but not limited to, airport land use compatibility planning; noise contour development for all five system airports; aircraft noise measurements; noise and operations monitoring system design, acquisition and installation; public meeting facilitation; presentations to the Board of Supervisors; acting airport noise officer; noise office staff training; litigation support; and analysis of alternative nighttime arrival routes into Mather Airport(MHR).



#### **EDUCATION**

B.S., Aeronautics, Dowling College, Dean's List

#### **38 YEARS OF EXPERIENCE**

#### **CERTIFICATION**

Certified ESOP Fiduciary, Rady School of Management

#### **PROFESSIONAL AFFILIATIONS**

Associate, Institute of Noise Control Engineering

Airports Council International – North America

American Association of Airport Executives

Southwest Chapter of the American Association of Airport Executives

Northwest Chapter of American Association of Airport Executives

Sustainable Aviation Guidance Alliance (SAGA) Peer Review Group Member

## Steve Alverson *Resume Continued*

**Denver International Airport (DEN) Concourse Expansion Environmental Assessment (EA) Noise and Air Quality Sections.** *Project Director.* Steve directed ESA's staff who prepared the noise and air quality analyses for the proposed 39-gate expansion at DEN. ESA developed aircraft noise exposure contours and air emissions results for the existing case, 2025, and 2040 No Action and Proposed Action Scenarios using the FAA-approved AEDT. In addition to noise contour figures and air/noise data tables, ESA prepared the supporting text for the Affected Environment and Environmental Consequences chapters of the EA. The FAA issued a FONSI and Record of Decision (ROD) for the project.

**SFO Community Roundtable Coordinator Services.** *Project Director.* Steve served as the coordinator for the SFO Community Roundtable, one of the oldest airport-community noise forums in the United States. Steve assisted in setting the Roundtable meeting agendas, presented on a variety of topics at the meetings, and served as a liaison between the Roundtable, SFO Noise Abatement Office staff, the FAA, and aircraft operators.

**Los Angeles Airport (LAX) 14 CFR Part 150 Noise Exposure Map (NEM) Update, Los Angeles, CA.** *Project Manager.* Steve served as project manager for the LAX 14 CFR Part 150 NEM Update. The ESA team prepared the update of the 14 CFR Part 150 NEMs for Los Angeles International Airport in order to obtain the FAA's acceptance of the 2015 and 2020 NEMs. As part of this project, ESA's responsibilities included collecting and analyzing the aircraft operations and fleet mix data; preparing baseline and future fleet mix forecasts in accordance with 14 CFR Part 150 regulations and FAA's terminal area forecasts; generating the aircraft noise exposure contours; assessing impacts on noise sensitive land uses; conducting impacted population counts; leading stakeholder consultations and public outreach supporting a 14 CFR Part 150 NEM Update; and preparing the necessary NEM documentation for FAA's review and acceptance.

**Portland-Hillsboro Airport Parallel Runway EA Support, Hillsboro, OR.** *Project Manager.* As a subconsultant to another firm, ESA prepared NEPA technical documents for projects included in the HIO Master Plan including a new parallel runway and helicopter landing area. Steve oversaw ESA's staff work related to the analysis of aircraft noise exposure with and without the proposed projects, the effects of the proposed projects on land use compatibility, field surveys for threatened and endangered species, and technical memoranda describing existing conditions, potential direct, indirect and cumulative effects, for fish, wildlife, wetlands, and vegetation. Steve also attended a public workshop on the Draft EA and presented the aircraft noise exposure contours for the Proposed Action and No Action scenarios.

**Santa Maria Public Airport Runway and Taxiway EA and EIR.** *Project Director.* Steve oversaw the preparation of an EA and an EIR for the development projects identified in the SBSM Master Plan. The projects included the extension of the main air carrier runway and taxiway as well as the development of hangars and general aviation facilities on the south side of the airport. The EA received a FONSI from the FAA in June 2010. The Airport Board certified the EIR in September 2010. In addition, Steve conducted a public presentation on the EIR before the Airport Board.

**Ted Stevens Anchorage International Airport Runway 32 Extension EA.** *Project Manager.* Prior to joining ESA, Steve Alverson managed the preparation of an EA for the extension of Runway 32; the primary air cargo departure runway. The extension allowed air cargo operators to carry and fuel and/or cargo to destinations in the Far East. The EA was completed within four months of receipt of notice to proceed.

**SEA Noise Element for the South Aviation Support Area (SASA) EIS.** *Project Manager.* Prior to joining ESA, Steve oversaw the preparation of the aircraft noise element of the SASA EIS. The analysis included noise from aircraft in flight, noise from taxiing aircraft, and noise from ground run-up operations. Steve prepared the text of the noise element in the SASA EIS.

## Sean Burlingame

### Senior Airport Specialist

Sean has over 11 years of experience in technical analysis, noise modeling, and planning at more than 30 domestic and international airports nationwide. He has also served as the lead technical analyst and noise modeler at several heliport and helipad facilities nationwide. His experiences at these facilities include serving as the lead technical analyst and noise modeler on Airport Land Use Compatibility Plans (ALCUP) and 14 CFR Part 150 Noise and Land Use Compatibility studies, various environmental studies ranging from categorical exclusions (CatEx) to EAs/EIRs, as well as fulfilling the role of principal analyst on assorted airport planning studies including development of the 14 CFR Part 77 surfaces, Safety Zones, and Overflight Zones of ALUCPs.

Sean's experience includes a wide array of aviation noise mitigation studies that involve aircraft noise modeling, operational noise abatement flight procedures, airspace utilization, aircraft performance characteristics, and off-airport land use compatibility initiatives. Sean is an advanced user of ArcGIS software from ESRI, using GIS software for aerial photography acquisition, spatial analysis, data rectification, and preparation of documentation graphics. Sean is an expert user of the FAA INM, versions 6.1 – 7.0d, an advanced user of the FAA's AEDT, and an advanced user of AutoCAD. Sean is well versed in using the AEDT and INM to conduct noise analyses that include supplemental noise metrics; including (but not limited to) SEL, Maximum A-weighted sound level (LAmax), TALA, and NALA. His noise modeling experiences have included conducting supplemental noise analyses, including classroom disturbance and probability of nighttime awakenings analyses. Sean also has thorough experience using NOISEMAP, TNIP, and Adobe Creative Suite, and is capable of integrating all of these programs to assess noise at airports and heliports, allowing him to produce deliverables for certification and report documentation.

### Relevant Experience

**FLL Part 150 Study, Fort Lauderdale, FL.** *Lead Technical Analyst.* ESA is preparing a 14 CFR Part 150 Study to address noise concerns. This Study will evaluate aircraft noise compatibility of FLL with the local communities. Sean conducted the noise modeling effort using the latest version of AEDT. He also created various maps and figures, which were included in the NEM documentation (including the official NEM set). He also has attended the Public Workshops and Technical Committee (TC) meetings, having prepared many of the materials presented at these meetings. This project is ongoing and is entering the NCP phase.



#### EDUCATION

B.S., Aviation Management,  
Florida Institute of Technology

#### 11+ YEARS OF EXPERIENCE

#### TRAINING

Advanced Aviation Computer  
Applications

Airport Planning

Airport Design

Air Transportation Management

AutoCAD for the Airport  
Environment

Aviation Labor Law

Aviation Safety



## Sean Burlingame *Resume Continued*

**LGA and JFK 14 CFR Part 150 Noise and Land Use Compatibility Studies, Queens, New York.** *Technical Analyst / Noise Modeler.* ESA is preparing the 14 CFR Part 150 Noise and Land Use Compatibility Studies for LGA and JFK. The studies are the first ever undertaken for LGA and JFK; they were initiated at the direction of the Governor of New York in response to community concerns. Sean assisted the noise modeling effort in developing the fleet mix, runway use percentages, time-of-day splits, flight track development, flight track loading and stage length analysis. Sean also assisted in preparing extensive materials for custom aircraft flight profiles that were submitted to the FAA and ultimately approved for use in producing the noise contours for JFK. He also had heavy involvement with producing the support graphics and mapping included in both the Technical Advisory Committee (TAC) meeting presentations, Noise Exposure Maps (NEMs), and the NEM reports. This project is currently ongoing and entering the NCP phase.

**LAX 14 CFR Part 150 Noise Exposure Map Update, Los Angeles, CA.** *Technical Analyst / Lead Noise Modeler.* ESA led the noise modeling effort for the update of the NEMs for this commercial service airport operated by LAWA, as well as provided technical analysis related to the airspace and land uses in the environs of the airport. Sean performed the role as lead noise modeler, which included developing the fleet mix, runway use, flight track utilization, and stage lengths analysis at LAX. Sean also played a key role in developing the NEMs as well as additional mapping to support the NEM documentation. He provided a supporting role in the technical analysis of the complex airspace in the vicinity of LAX, as well as developing the existing and future land use inventories in the environs of the airport.

**MLB 14 CFR Part 150 Update Study, Melbourne, FL.** *Lead Technical Analyst / Lead Noise Modeler.* ESA is leading the technical support for the noise exposure and compatibility program for this commercial service airport operated by the City of Melbourne, FL. The update is evaluating the current noise exposure and the extent of use of the measures outlined in the previous study. It is also evaluating the changes in noise exposure resulting from an increase in aircraft manufacturing at the airport as well as the maintenance, repair, and overhaul (MRO) activities for large and jumbo jet commercial aircraft. Sean continues to lead the noise modeling effort, which included developing the fleet mix, runway use, flight track utilization, and stage lengths analysis at MLB. Sean also continues to lead the effort on developing the NEMs as well as additional mapping to support the NEM documentation.

**Southwest FL International Airport Part 150 Update Study, Fort Myers, FL.** *Lead Technical Analyst / Lead Noise Modeler.* ESA led the technical support for the noise and land use compatibility program update for this commercial service airport operated by the Lee County Port Authority in Fort Myers, FL. Sean led the noise modeling effort, which included developing the fleet mix, runway use, flight track utilization, and stage lengths analysis at RSW. Sean also led the effort in the land use compatibility portion of the study, which included analyzing single-event noise metrics, as well as analyzing different flight procedures into and out of the airfield (namely over Fort Myers Beach). Additionally, he led the effort on developing the NEMs as well as additional mapping to support the NEM and NCP documentation. Ultimately, the NEMs were approved by the FAA in November, 2012, and the FAA granted a record of approval (ROA) in April, 2014.

## Michael Burns, CHG, CEG, PG, QSD

### Director Geo-Hydro-HazMat Technical Services Group

Michael is a skilled and effective project manager with more than 30 years of experience in the environmental and geological sciences. He provides expert services in NEPA planning and permitting, site characterization, Superfund sites, Remedial Investigation/Feasibility Studies (RI/FS), waste management, litigation support, property assessments, development and redevelopment, soil and groundwater remediation, groundwater banking, and water rights. His projects include municipal and regional water supply, industrial and manufacturing facilities, airports, levees, landfills, refineries, research and development facilities, hazardous waste management, vineyards, and commercial properties.

### Relevant Experience

#### **Tom Bradley International Terminal Expansion, Los Angeles International Airport, Los Angeles, CA.** *Contract Environmental Compliance Officer (CECO).*

Michael served as the CECO for the excavation phase of the project, which added nine new gates, reconfigured existing gates, and expanded and improved terminal facilities to handle new large-capacity jets that can carry as many as 800 passengers. He ensured implementation of all components of construction-related environmental requirements through management direction, compliance monitoring, direct inspections, maintenance of records, and investigations of complaints. The CECO responsibilities included the following:

- Reviewing contract documents to develop the project specific mitigation plan
- Developing solicitation plans for on-call services for mitigation, as needed
- Preparing environmental reports and mitigation plans, as required
- Developing contaminated materials management procedures
- Developing procedures for the management of hazardous material encountered during structure demolition
- Ensuring procedures are being executed through daily field inspections
- Conducting soil sampling investigations for fuel leak sites as construction proceeded and managed the contaminated soil excavation and disposal

**Gross Field (NOT) EIS/EIR, Novato, CA.** *Project Manager, Geologist, Hydrologist, Mineral Resources, and Hazardous Materials Analyst.* Michael assisted Marin County and the FAA with a NEPA and CEQA analysis for the proposed 1,100-foot extension of Runway 13/31 of the Gross Field Airport into a disturbed wetland and former agricultural area. A combined Environmental Impact Statement/Environmental Impact Report was prepared to comply with NEPA and CEQA, respectively, and described and analyzed the affected environment and potential impacts of the proposed project within the affected area. Successful extension of Runway 13/31 will enable NOT to handle modern aircraft and improve the safety of the airport. Key issues included biological resources and tidal effects.



#### **EDUCATION**

B.S., Geology, San Jose State University

#### **30+ YEARS OF EXPERIENCE**

#### **REGISTRATIONS/ CERTIFICATION**

Certified Hydrogeologist (CHG),  
CA # 280

Certified Engineering Geologist  
(CEG), CA #846

Professional Geologist (PG),  
CA #4532

Qualified SWPPP Developer  
(QSD) #PG4532

#### **PROFESSIONAL AFFILIATION**

Groundwater Resources  
Association of CA

#### **TRAINING**

40-Hour OSHA Hazardous  
Materials & Waste Operations

30-Hour OSHA Construction

Sustainable Groundwater  
Management Act Conferences,  
GRA

NBWA Climate Change  
Conference

Water Quality Goals Conference,  
State Water Board, 2012

Managed Aquifer Recharge  
Symposium, NWRI, 2011

## Michael Burns *Resume Continued*

**Topock Gas Compressor Station, CEQA Consultant (Multiple EIRs), Topock, AZ / Needles, CA.** *Analyst for Geology, Hydrology, Mineral Resources, and Hazardous Materials.* Michael provided senior-level technical consultation and analysis of the geologic, seismic, hydrologic, water quality, hazards and hazardous materials, utilities, and mineral resources impacts for the various CEQA documentation efforts. The CA Department of Toxic Substances Control (DTSC) provides oversight of the site investigation and cleanup activities for the Pacific Gas and Electric Company (PG&E) Topock Gas Compressor Station, located in San Bernardino County, 15 miles southeast of Needles, CA, and adjacent to the Colorado River. Soil and groundwater under and near the Station are contaminated with hexavalent chromium, along with other chemicals. The presence of hexavalent chromium is the result of past waste water disposal activities at the Station. The soil and groundwater contamination requires investigation and cleanup. ESA prepared EIRs for soil and groundwater investigations and cleanup actions. Additional project-specific EIRs may be required for the final remedy.

**Redwood Plaza Shopping Center, Redwood City, CA.** *Project Manager and Hydrogeologist.* Michael served as the project manager for the investigation and remediation of chlorinated solvent and petroleum hydrocarbon contaminated groundwater at a former auto parts manufacturing facility located within an RWQCB-led regional soil and groundwater investigation and remediation program. He led the characterization of the nature and extent of groundwater contamination; negotiated with regulatory agencies; closed two former rail spurs into facility; installed and operated a soil vapor extraction and treatment system beneath the existing building constructed over a former drum storage area; and treated groundwater with an in-situ proprietary chemical treatment to reduce the chlorinated solvent concentrations to levels where natural attenuation will be the selected final remedial option. The key issue was conducting the soil and groundwater cleanup without affecting the ongoing commercial operations.

**NASA Ames Research Center, Moffett Field, CA.** *Project Manager and Hydrogeologist.* Michael served as the project manager for facility-wide investigation and remediation of underground storage tank leaks including the development and implementation of Remedial Investigation/Feasibility Study (RI/FS) work plans and investigations, and underground storage tank investigations and removals. The closure activities included the excavation and removal of numerous underground storage tanks with some adjacent to, or under, buildings, portions of the active airfield, and critical utilities. Key issues were the prevalence of poorly documented underground storage tanks and active utilities.

**SSFL, Programmatic and Project Level EIR, Simi Hills, CA.** *Earth Sciences and Hazardous Materials Task Leader for Geology, Seismicity, Hydrology and Water Quality, Mineral Resources, and Hazardous Materials.* Michael was the Earth Sciences and Hazardous Materials task leader responsible for evaluating the geologic, seismic, hydrologic, water quality, hazardous materials, and mineral resources impacts. The DTSC provides oversight of the site investigation and cleanup activities for the former SSFL. SSFL was a government-sponsored research and testing facility from 1947 to 2006. Site activities included research, development, and testing of rocket engines, water jet pumps, lasers, liquid metal heat exchanger components, nuclear energy, and related technologies. The principal activities were large rocket engine testing and nuclear power generation research. Soil and groundwater are contaminated with various chemicals, principally trichloroethene, along with other chemicals and radionuclides. The soil and groundwater contamination requires investigation and cleanup. These activities are highly scrutinized by the local communities and the site is the subject of ongoing legal action. ESA prepared the Programmatic and Project Level EIR for soil and groundwater remediation. Key issues included evaluating the impacts from the cleanup of chemical and radioactive waste to cleanup workers, the environment, and the future proposed open space and park land use.

## Jeffrey Caton, PE, LEED AP

### Principal Associate

Jeff has three decades of planning, engineering, and business management experience and specializes in climate change and other sustainability issues. Jeff helps clients develop and manage their sustainability and climate change initiatives through strategy development, benchmarking, performance measurement, and various communications media. His project management experience includes CAPs, SMP, Climate Change Adaptation Plans (CCAP) and all aspects of GHG emissions management including evaluation of carbon-related risks and opportunities, carbon footprint analysis, carbon market analysis, GHG inventory design and development, emissions quantification, reduction strategies, public reporting, and verification. He is particularly adept at assessing environmental and sustainability performance and communicating that performance to stakeholders, as well as aligning sustainability goals with organizational strategy. Jeff led the development of CAPs for the cities of Riverside, Richmond, Pleasanton, Ukiah, Hughson, Oakdale, Delano and Oxnard, as well as a regional CAP project for multiple jurisdictions in Gateway Cities region Los Angeles County.

### Relevant Experience

**City of Richmond CAP, Richmond, CA.** *Project Manager.* Jeff led the consulting team that developed the City of Richmond CAP, which provides a roadmap for reducing community-wide GHG emissions and preparing this coastal city for the anticipated impacts of climate change on public health, infrastructure, ecosystems, and public spaces. Recognizing the city’s extensive disadvantaged populations, the CAP builds upon the City’s Health in All Policies Strategy, providing the vision, goals, and specific actions that will be needed to strengthen the connections between climate protection, community resilience, public health, local economy, and social equity. The project included completion of the City’s first detailed Climate Change Adaptation Study, which downscales climate change impacts to the local scale and includes a vulnerability and risk assessment of the city’s most important assets to rising temperatures, rising seas, extreme weather events, and more extreme droughts. Project deliverables also included CEQA documentation, extensive public outreach, coordination with multiple agencies and stakeholders, and development of robust metrics and tools that will enable the City to track CAP implementation and monitor community GHG emissions reductions.

**City of Riverside, Restorative Growthprint, Riverside, CA.** *Project Manager.* Jeff led the team that developed the multiple award-winning City of Riverside Restorative Growthprint, a plan for reducing GHG emissions while inspiring economic development through investment in urban development, urban infrastructure, urban mobility systems, smart growth, and entrepreneurship. The project had a large stakeholder engagement component, including the fostering of public-private partnerships between the City, the local business community, and local higher-education institutions including the University of CA at Riverside.



#### EDUCATION

B.S., Environmental Engineering, University of Michigan, Ann Arbor

#### 30 YEARS OF EXPERIENCE

#### REGISTRATION/ CERTIFICATIONS

Registered Professional Engineer, CA, # 45127

LEED Accredited Professional, US Green Building Council, 2009

Trained Lead Verifier, AB32 GHG Reporting

#### PROFESSIONAL AFFILIATIONS

Steering Committee for STAR Community Rating System

Advisory Committee for SEEC ClearPath Tool Development

## Jeff Caton *Resume Continued*

**Southern CA Association of Governments (SCAG), Regional Climate Adaption Framework, Southern CA, CA.** *Project Manager.* Jeff is leading ESA's contribution, as part of a larger consultant team, in preparing a comprehensive framework to support regional climate adaptation planning, identify climate change vulnerabilities, assist in capacity building, and provide outreach and other implementation tools for local jurisdictions. The SCAG region includes 191 cities and six counties. ESA is supporting all of the cities and counties in the SCAG region by analyzing the gaps in their adaptation planning efforts and providing guidance on how to resolve those gaps. ESA is providing the following major elements: developing a regional framework and coordination strategy for climate adaptation planning, authoring a comprehensive Southern CA Adaptation Planning Guide, and preparing model policies for the region's General Plans and Local Coastal Programs.

**City of Oxnard Energy Action Plan (EAP).** *Project Manager.* For the City of Oxnard, Jeff led development of an EAP for City operations and for the broader community. The EAP provides the City and its residents and businesses with valuable tools for assessing the economic and environmental benefits of energy efficiency and conservation. Primary objectives of the project included integration with ongoing initiatives by the Ventura County Regional Energy Alliance (VCREA), and demonstrating that local governments can lead by example with their own facilities and energy usage practices. The project included extensive public outreach.

**Gateway Cities Council of Governments, Climate Action Planning Framework, Los Angeles, CA.** *Project Manager.* Jeff led the preparation of the Gateway Cities Council of Governments Climate Action Planning Framework for 26 member cities to efficiently prepare local plans for reducing GHG emissions and increasing resilience to climate change in their communities. The CAP Framework is a suite of tools and templates for setting GHG targets, selecting and prioritizing GHG reduction and adaptation measures, assembling a CAP document, and tracking its implementation. It is intended to help individual communities advance their goals for economic development, public health, air quality, equity, and job creation while reducing emissions and adapting to the impacts of climate change.

**Western Riverside Council of Governments (WRCOG) Subregional CAP, Riverside County, CA.** *Project Manager.* Jeff is leading the consulting team that is helping WRCOG update its Subregional CAP to achieve deep reductions in GHG emissions through the year 2050 and help participating jurisdictions fulfill their regulatory obligations with respect to emissions and climate change. The program will enable participating cities to efficiently develop feasible targets and GHG reduction measures that align with community interests and planning priorities, while staying abreast of rapidly evolving climate science, regulations, and stakeholder concerns. The CAP update is emphasizing ease of implementation and the flexibility and usability of its components, leveraging its most successful existing elements while addressing barriers currently preventing more widespread use by WRCOG's 19 member jurisdictions.

**City of Palo Alto Sustainability and CAP (S/CAP).** *Adaptation Task Leader.* Jeff led development of the Palo Alto Climate Change Adaptation Roadmap, which examines a broad spectrum of the community's climate change vulnerabilities and prioritizes adaptation responses based on the risks, needs, and synergies with related planning efforts. ESA grouped critical community assets into eleven functional categories (e.g., water supply) and assessed their vulnerability to locally-forecasted climate change exposures including higher temperatures, drought, and sea level rise. For assets found to be vulnerable, Jeff developed a risk-and-response matrix indicating where the City should take action to improve resilience, based on relative risk, current adaptive capacity, and the type of response action needed. He also led the GHG reduction strategy development for the water and solid waste sectors of the S/CAP.

**City of American Canyon Energy Efficiency Climate Action Plan (EE CAP).** *Project Manager.* Jeff led the effort to develop a community-wide EE CAP to enable the City to lead the community with innovative programs for energy efficiency, sustainability and climate change. The project, funded largely by PG&E, focuses on energy consumption and conservation. ESA updated the City's baseline GHG inventory, established baseline energy consumption, and developed feasible policies, programs and measures that cost-effectively reduce GHG emissions generated by buildings across the community and government sectors. The project included significant public outreach, and close coordination with PG&E.

## Jeffrey Covert, MS, ENV SP

### Sustainability Specialist

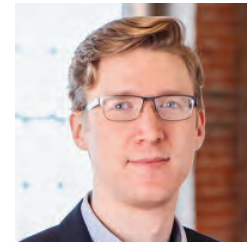
Jeff is a sustainability specialist with over four years of experience providing sustainability and air quality consulting services at airports nationwide. At ESA, he focuses his time serving clients using his skills in air quality modeling, renewable energy planning, vehicle electrification planning and implementation, stakeholder coordination, and grant funding assistance.

Jeff has supported aviation clients across the nation in the implementation of low-emissions projects and sustainability initiatives. He takes a whole-systems approach to co-create a shared direction, seek to understand how stakeholders and their actions are collectively connected, and foster productive collaboration across organizational boundaries to reach common sustainability goals. He has successfully used this approach at airports across the country to help deliver outcomes across multiple dimensions of sustainability, from reduced emissions to improved resilience and culture change. As a result of his work, airport sponsors have embraced sustainability as a mechanism that not only improves environmental quality but enhances airport operations, reduces costs, and enriches the surrounding community.

### Relevant Experience (Prior to joining ESA)

**SJC Sustainable Management Plan, CA.** *Technical Lead.* Jeff was the technical lead in the development of SJC first SMP and Implementation Program. The SMP will serve as SJC’s roadmap for managing GHG emissions, energy and water use, solid waste, and natural and social resources for decades to come. Through a broad multi-stakeholder engagement process, Jeff assisted in developing an SMP that articulates SJC’s strategy for managing energy, water, waste, ground transport, and natural resources while also promoting social responsibility. The strategy leverages synergies across these dimensions and identifies cross-cutting actions focused on sustainability tracking and reporting; staff, tenant and passenger engagement; efficient technologies and practices; low carbon energy and fuels; circular economy; and health and wellness for people and the environment.

**ATL Sustainable Management Plan, GA.** *Technical Lead.* Jeff served as the technical lead in developing a refresh to the ATL SMP. He led a series of workshops with key internal and external stakeholders with the City of Atlanta Department of Aviation (DOA) to better understand the current state, what is working well, and opportunities for improving sustainability at ATL. The results of these efforts led to the consolidation of 50 existing initiatives into a strategic vision plan for resilience and sustainability that will be a centerpiece of the SMP. Through facilitated stakeholder workshops, the SMP is being co-developed with key stakeholders to ensure ‘buy in’ and integration of sustainability into all aspects of airport planning, operation, and maintenance at the busiest airport in the world.



#### EDUCATION

M.S., Environmental Science, Indiana University School of Public and Environmental Affairs

Masters of Public Affairs, Indiana University School of Public and Environmental Affairs

B.S., Ecology and Environmental Biology, Appalachian State University

B.A., Spanish, Appalachian State University

#### 4 YEARS OF EXPERIENCE

#### CERTIFICATION

Envision Sustainability Professional (ENV SP)

#### PROFESSIONAL AFFILIATIONS

Airports Council International – North America (ACI-NA)

U.S. Green Building Council (USGBC)

## Jeffrey Covert *Resume Continued*

**Electric Vehicle (EV) Implementation Strategy for City of Atlanta Department of Aviation, GA. *Technical Lead.*** Jeff served as an EV fleet management specialist focused on creating an EV procurement plan that prioritizes the replacement of conventionally-fueled vehicles with electric counterparts across the City of Atlanta DOA. He regularly coordinated with DOA fleet managers, engineers, and planners to align EV charging infrastructure with current and future development projects at ATL. The plan included a procurement roadmap that details vehicles to replace, locations for EV chargers, market-ready replacement options, steps to procure new EVs, and estimated costs with and without federal funding for new vehicles.

**Airport-Wide Solar Master Plan of ATL, GA. *Technical Lead.*** Jeff served as lead renewable energy specialist providing the City of Atlanta DOA with an airport-wide solar master plan for integrating solar energy technologies into long-term planning of facilities and property at ATL. He regularly collaborated with internal and external DOA stakeholders to identify potential locations for solar development that maximize the resiliency and cost-savings to current and future airport facilities. Through his experience in strategic planning, Jeff analyzed glint and glare impacts, energy production potential, electrical infrastructure, and battery storage siting for over 100 different potential locations for solar PV development. The result of his analysis was a comprehensive implementation plan that allows the DOA to meet 100% of its energy demand through solar PV development on airport property.

**Federal Grant Funding Assistance, Nationwide. *Technical Lead.*** For over four years, Jeff has provided airport sponsors across the country with grant funding assistance for the implementation of air quality improvement projects that reduce emissions of criteria air pollutants and greenhouse gases. He regularly estimates emission reductions from the implementation of electric ground support equipment, EV, remote ground power, gate electrification, renewable energy systems and pre-conditioned air units using FAA-approved modeling methodologies. His work has resulted in the acquisition of over \$15 million in federal funding for projects that improve air quality, reduce operating costs, and enhance relations with tenant airlines.

**Chattanooga Metropolitan Airport (CHA) Waste Management Program Development, TN. *Technical Lead.*** Jeff led the development of a comprehensive airport-wide waste management program for CHA Authority. Through multiple site visits of airport facilities and frequent coordination with key airport stakeholders, Jeff established a baseline understanding of waste management and identified key areas for improvement. His work resulted in a management program that reduces waste through infrastructure modifications, community partnerships, green procurement policies, and stakeholder outreach and education.

## Troy Craig

### Senior Scientist

Troy has 10 years of professional experience in environmental protection and conservation. He is currently the NPDES Project Coordinator for Florida's Turnpike Enterprise (FTE). He currently manages, coordinates and/or conducts NPDES permits, BMAPS, water quality monitoring programs, and construction inspections. Outside of NPDES work, his experience includes environmental monitoring, marine and wetland species identification, report preparation, biological evaluations and assessments of natural resources, providing advice, guidance, and information as a member of interdisciplinary teams.

### Relevant Experience

**FTE NPDES Coordinator, Broward County, FL.** *NPDES Coordinator.* This project consisted of implementing the NPDES MS4 permit requirements for the counties that the Turnpike intersects with regulatory agencies (water management district and federal, state, and local agencies), conducting inspections of NPDES stormwater drainage systems, and erosion and sedimentation controls. Troy resolved site issues and created a stormwater related asset database using ESRI Collector App and Arc GIS. He assisted in the review and development of Turnpike production design projects to assure NPDES compliance. Troy worked on special drainage projects including coordination with production, construction, and other FDOT districts, municipalities, or property owners in order to meet NPDES requirements. Other duties included developing NPDES pollutant loading EMC stormwater monitoring values and preparing and submitting all annual reports, BMAP's, TMDL reports and Watershed assessments.

**Broward County NPDES Water Quality Monitoring Program, Broward County, FL.** *Natural Resource Specialist.* This project involved conducting a Broward Counties NPDES instream monitoring program using YSI SMART Sondes and interpreting hydrological, terrestrial, chemical and/or marine physical and biological data. This data and information was used to write NPDES annual monitoring report for all of Broward county municipalities. SWPPP inspections were conducted at all Broward county construction sites.

**Modifications to SR 90/Modified Water Deliveries Project to Everglades National Park, Miami-Dade County, FL.** *Staff Scientist.* This project involved the raising of a 10-mile stretch of Tamiami Trail that included a one-mile bridge to help restore historic flow of water through the Everglades. Troy served as the field biologist responsible for the daily monitoring of the Wood storks nesting activity, monitoring of Everglade Snail kites, migratory and wading birds, as well as the presence of the Eastern indigo snake, Gopher tortoise, and Everglades mink within the construction area. Other responsibilities included wetland monitoring, collecting, and analyzing water samples for turbidity measurements. Reports were generated summarizing the monitoring observations on a daily, weekly, and monthly basis.



#### EDUCATION

B.S., Environmental Science,  
Florida International University

#### 10 YEARS OF EXPERIENCE

#### CERTIFICATIONS

Florida Stormwater, Erosion and  
Sediment Control Inspector

USACE Qualified Environmental  
Monitor

FDEP Scientific Diver



## Troy Craig *Resume Continued*

**Krome Avenue Design, Miami-Dade County, FL. Staff Scientist.** This project involved widening Krome Avenue from 2 lanes to 4 lanes. The project stretched from Kendall Drive to north of Tamiami Trail. Troy was the Environmental Scientist responsible for assisting with conducting the wetland delineation.

**FDEP Coral Reef Conservation Program, Martin, Palm Beach, Broward and Miami-Dade Counties, FL. Coordinator.** Troy's responsibilities included development of projects related to coral reef protection, restoration, and incident response. Administrative duties included contract management, environmental permitting review support, and financial planning for each project. Projects included the Miami-Dade mooring buoy placement and mooring supplies contract and the creation of a groundings database housing all reef known injuries with in the four-county region. He was responsible for the identification of physical threats to coral reef resources in southeast FL; as well as Identifying gaps in BMPs within state, and federal laws. Also, he provided recommendations to offer better protection and reduce impacts on coral reef resources including Coral Reef Crime Scene Investigation (CSI) training for (CRCP) staff and local agencies staff. Troy assisted in the creation of marine event response programs, such as Harmful Algae Blooms (HAB's), fish kills, invasive species, and cold weather events. A Microsoft Access database was developed to track all reports and response efforts. Troy cataloged all inventory and maintenance of scuba equipment necessary for the program.

**Bridges of the Isles Design-Build, Broward County, FL. Staff Scientist.** The project consisted of replacing the five existing structurally deficient bridges with new 2-lane, fixed low-level bridges. Troy was the Environmental Scientist assisting in conducting a marine benthic survey for bridge replacement project.

**Governor's River Walk Reef, Palm Beach County, FL. Staff Scientist.** Governor's River Walk Reef consisted of four ships each approximately 180 ft. long, with lime rock boulder and concrete corridors connecting the ships. This project involved collecting preliminary measurements; identifying injury types, and estimating the numbers and species of injured or dislodged organisms. Determining injury boundaries and documenting the injury required the use of a variety of techniques, including photography and videography. Troy performed biological triage, consisting of caching biological resources that had been dislodged so reattachments can occur. He worked directly with the responsible party to find a contractor to complete triage and remove tangled cable from the Gilbert Sea.

**Port of Miami Dredging, Miami-Dade County, FL. Staff Scientist.** This project involved deepening the current channel of 42" to 52" in preparation to accommodate larger ships that will access the widened Panama Canal. Troy served as the (CRCP) project coordinator reviewing permit application and biological surveys. He participated in the initial surveys to document coral reef resources that were within the projected impact zone. Surveys included recording locations of coral resources 10cm or larger, identity of species, and the overall health of the colony.

## Douglas DiCarlo

### Program Manager Southeast Airports Group

Doug has 25 years of experience in providing aviation consulting services for both commercial service and general aviation airports throughout the United States. He has served as project manager or senior aviation planner on various airport master plans, aviation planning studies, environmental documents, and airfield design projects. His expertise has involved forecasting, airfield geometry, heliport facilities, alternatives analysis, airspace evaluations, and feasibility studies. His project experience has also included airfield analyses, landside facilities, airside/landside capacity, land acquisition, land use compatibility, airport zoning, financial planning, and economic development. Commercial service airport assignments have also included terminal, gate, ramp, airfield, and landside planning, as well as developing detailed airline fleet forecasts and schedules for simulation models.

Doug also authored numerous technical reports and has presented his work at symposiums, conferences, workshops, and public meetings/hearings. He has served as a lecturer for both undergraduate and graduate business and aviation classes at FL Institute of Technology, Embry-Riddle Aeronautical University, and the Ecole Nationale de l'Aviation Civile in Toulouse, France.

### Relevant Experience

**FDOT Aviation Support Consultant, Tallahassee, FL.** *Project Manager.* Doug is the primary point of contact, responsible for all aspects of the work, assigning team resources, and ensuring the quality of services of this five-year on-call contract with the state. Assignments range from aviation system and strategic planning; economic development and financial services; aviation operations support; FL Aviation Database, Airport Directory, and Aeronautical Chart management; and environmental services. In addition to the ESA staff assigned to the state, Doug also manages a team of nine specialized subconsultants. Responsibilities for each task work order include managing the various contracts, budgets, and schedules, which includes tracking all man-hours and expenses with the state's auditing system.

**MLB Master Plan Update, Melbourne, FL.** *Project Manager.* Doug studied and documented the substantial change in the aviation industry and national economy that has affected the MLB, the City of Melbourne, Brevard County, and the Space Coast of FL since the previous study. Even after the 2008 economic downturn, the airport experienced significant growth in aviation and military research; education and training; aircraft manufacturing and assembly; and heavy aircraft maintenance. The study balanced the needs identified for the airport's varied users and demand as multiple airport improvement projects continue to be programmed to accommodate the growth.



#### EDUCATION

M.B.A., University of Central Florida

B.S., Airway Science Management, Florida Institute of Technology

#### 25 YEARS OF EXPERIENCE

#### CERTIFICATION

FAA Private Pilot (single engine land)

#### PROFESSIONAL AFFILIATIONS

Airports Council International – North America (ACI-NA)

Airport Consultants Council (ACC)

American Association of Airport Executives (AAAE)

Florida Airports Council (FAC)

#### TRAINING

AutoCAD

FAA Obstruction Evaluation/ Airport Airspace Analysis

MITRE Runway Simulator

FL Aviation Database Integrated Facility Module

## Douglas DiCarlo *Resume Continued*

**APF Master Plan, Naples, FL.** *Project Manager.* Doug is leading the effort to provide a new master plan for the APF. As the last master plan was completed in 1997, this study includes an entirely new evaluation of the airport's facilities and their role in the surrounding community. Key components of the study include exploring the future of commercial passenger service, general aviation terminal space, impacts associated with increased floodplain elevations, and the redevelopment of existing facilities. The study is also analyzing a number of environmental issues to include sustainability, resiliency, stormwater, and solar feasibility.

**MLB On-Call Airport Planning Services, Melbourne, FL.** *Project Manager.* Doug is the primary contact for any on-call airport planning services assigned by the senior MLB management. To date these have included an evaluation of individual aircraft noise/jet blast impacts, the establishment of central compass calibration pad, updates to the airport's CIP, grant assistance, and airspace analyses.

**LAL Master Plan Update, Lakeland, FL.** *Senior Airport Planner.* Doug is leading the effort to develop a number of sections for the LAL master plan update. Specific analyses include documenting the current critical aircraft, developing aviation activity forecast, identifying potential commercial service scenarios, and evaluating the need for a runway extension.

**PIE Master Plan, Clearwater, FL.** *Project Manager.* Doug is leading the effort to provide a new master plan for the PIE. Key elements of this study include the need to evaluate the airport's passenger terminal facilities, infrastructure resiliency, and development plans for the east side of the airfield

**Kissimmee Gateway Airport (ISM) On-Call Aviation Planning Services, Kissimmee, FL.** *Project Manager.* These on-call planning assignments at the ISM have included two Airport Layout Plan updates, a siting study for the replacement airport traffic control tower, terminal area plans, and annual updates to the JACIP. Doug was the primary planner for evaluating all airport airspace issues, to include expansion of the City's on-airport Central Services, an on-airport YMCA, and the adjacent Thacker Elementary facilities. He facilitated the Hoagland Boulevard improvements impacting three sides of the airport by facilitating the property, right-of-use, and leasehold changes for FAA compliance, as well as coordination for the numerous power and light poles installed with the road improvements. Doug also worked continuously with the airport to prevent incompatible land uses from being developed in the surrounding City and County limits.

**F45 Extension of Runway 14-32 Environmental Assessment, West Palm Beach, FL.** *Senior Airport Planner.* Doug lead the development of the Runway Extension Justification Study developed as part of the F45 Extension of Runway 14-32 environmental assessment. This study documented the various surveys, letters, data, analyses, and evaluations necessary to obtain FAA acceptance of the Purpose and Need for the runway extension. Doug also led the effort to evaluate the alternatives to extending Runway 14-32 required for the EA.

**FIN Master Plan, Palm Coast, FL.** *Project Manager.* This new master plan documented the significant level of airport operations realized after the first control tower was commissioned at the FIN. Doug provided updates to the activity projections and identified airfield improvements to accommodate demand. For the near term, this included a new parallel runway for airfield capacity. Therefore, to identify the best parallel runway alternative, more detailed operational and environmental data was obtained for the aircraft fleet mix, runway length requirements, and potential impacts to other airport development needs.

## Bryan Flynn, ME, PE

### Senior Coastal Engineer

Bryan has 18 years of professional experience in coastal engineering, hydrographic surveying, permitting, project management and construction administration. His areas of expertise include permitting, shoreline protection and coastal restoration, coastal monitoring, beach nourishment, inlet processes, dredging and navigation. Bryan has served as the project manager and/or lead engineer on challenging projects involving multiple stakeholders for clients including water management districts, municipalities, ports, inlet districts, private corporations, federal and state governments in FL, the Caribbean, Louisiana, Texas, and Delaware.

### Relevant Experience

**Developing Resilient Shorelines, Broward County, FL. Senior Coastal Engineer.**

Bryan assisted Broward County in creating a program that promotes living shorelines and seawall enhancement alternatives as a way to increase coastal resiliency. The program developed shoreline protection solutions that created habitat and increased design elevations to combat sea level rise for a variety of residential and municipal shorelines while preserving viewshed and water access. The ESA Team created renderings, brochures, a technical report and presentations to be used by the County in community outreach events. These documents were designed to lead the resident or community leader through the permitting process and discuss pricing options for different project elements.

**Rising Waters Task Force Report, City of Delray Beach, FL. Senior Coastal**

*Engineer.* This project was a planning initiative for the City of Delray Beach. The report included input from several local stakeholders and technical experts. The goal of the report is to raise awareness to the impacts of climate change and sea level rise on the coastal community. The efforts ultimately will lead to a coastal resiliency/vulnerability analysis performed for the City.

**Clearwater Pass Jetty Extension, Enchantment Residences, LLC, Clearwater,**

**FL. Senior Coastal Engineer.** ESA was retained to extend both jetties to increase protection of the beach and adjacent hotel property. Bryan led the ESA team in the data collection, design and permitting of the project. The data collection process included a submerged aquatic vegetation (SAV) survey, topographic & limited bathymetric survey, historic permit search, and feasibility analysis on several jetty configurations. Bryan was the key liaison between the client, contractor and the regulatory agencies, which included the USACE, FDEP, and Pinellas County.

**State Expenditure Plan for RESTORE Act (Pot 3), Gulf Coast, FL. Senior Coastal**

*Engineer.* The Gulf Consortium selected ESA to compile coastal projects from 23 counties along the gulf coast and create the State Expenditure Plan for submittal to the Governor and the Gulf Council for approval. The ESA team has advised the Counties and the Consortium on improvements to the plan and projects. The projects include habitat restoration, land acquisition, water quality improvement, septic to sewer conversion, dredging, and increased public access to the coast.



#### EDUCATION

M.E., Civil Engineering, Water Resources, University of South Florida

B.S., Coastal Engineering, Florida Institute of Technology

#### 18 YEARS OF EXPERIENCE

#### REGISTRATION/CERTIFICATION

Professional Engineer, FL #70856

FDEP Stormwater/ NPDES Certification #29445

#### TRAINING

NAUI Open Water Diver

## Bryan Flynn *Resume Continued*

**Sawgrass Lake Water Quality Remedial Action Plan Implementation Services, Pinellas Park, FL.** *Project Manager and Engineer-of-Record.* This task involved the remediation and reclamation of spent lead shot and clay targets at the Sawgrass Lake Water Management Area (WMA). The goal was to effectively remove or bind the lead contamination in sediment in and around the lake from a shooting range along the western shore, build an earthen berm to prevent future shot from reaching the lake, and develop a filter marsh to improve the water quality of Sawgrass Lake, which discharges into Tampa Bay. Bryan was the project manager and the engineer-of-record, managing oversight of the lake dredging and planting portion of the project during construction.

**Belleair Bluff Stabilization, Town of Belleair, FL.** *Senior Coastal Engineer.* Bryan was responsible for data collection and analysis, evaluation of proposed design, and design calculations for an alternative to the bluff stabilization project. The Town of Belleair was experiencing erosion of the 30-foot-tall bluff along the east shore of Clearwater Harbor and was concerned about the loss of trees and possible damage to sewer lines and roads. Wave heights and surge elevations acting on the bluff were determined based on conditions in Clearwater Harbor and meteorological conditions impacting the project area. Multiple wave cases were analyzed and a design life was chosen for the bluff stabilization structure. The project required a fast-track response to the client's needs, a constructible solution that would preserve the look and feel of the existing bluff, and extensive public outreach.

**Courtney Campbell Causeway/Upper Tampa Bay Modeling Study, Cape Coral, FL.** *Senior Coastal Engineer.* This project involves the widening of the Courtney Campbell Causeway in Hillsborough County for FDOT. The plan is to augment the causeway to allow better flushing of Upper Tampa Bay and improve the water quality to restore historical seagrass meadows in this portion of the Bay. Bryan served as coastal engineer and was involved with field data collection using NorTek Aquadopp current meters and Solinst Levellogger tide gauges for calibration of the Deft3D hydrodynamic model. Selected alternatives were run in the model to determine the size and location of the proposed relief bridge and the effect of removal of existing tide flap gates.

**Jungle Trail Shoreline Stabilization Project, Wabasso, Indian River County, FL.** *Senior Coastal Engineer.* The Historic Jungle Trail shoreline was impacted by Hurricanes Matthew and Irma and the close proximity to the Intracoastal Waterway makes it vulnerable to boat wakes, now 750 feet of the western right-of-way of Jungle Trail, south of Sea Oaks Boulevard is in need of repair. ESA coordinated data collection efforts including topographic, bathymetric, seagrass and mangrove surveys to inform the permitting and design portions of the project. The purpose of this project is to re-establish the eroded 4-foot shoulder of Jungle Trail to comply with County roadway specifications. This will increase the long-term resiliency of the roadway and the ability to provide safe passage to residents. Rock revetment and offshore breakwater designs were evaluated as potential solutions. A hybrid solution was chosen where limestone rip trap will be placed to secure the long-term survival of mangroves and other native estuarine species planted along the new berm as an integral part of the shoreline stabilization.

**South Shoreline Rehabilitation Project, Sebastian Inlet, FL.** *Senior Coastal Engineer.* ESA was retained to design, permit and oversee construction on the rehabilitation of the south shoreline of the inlet. Hurricanes Matthew and Irma destabilized the rip rap shorelines and caused erosion in the sandy beach segments. ESA retained permits from the SJRWMD and provided guidance on a phased approach to revetment repairs and then future resilience measures.

**Brevard County Dredging and Sediment Removal Projects, Brevard County, FL.** *Senior Coastal Engineer and QA/QC Manager.* Bryan was the senior coastal engineer and QA/QC manager for dredging projects in Mims and Satellite Beach-Grand Canal, as part of a county-wide effort to remove nutrient laden sediments and increase seagrass growth. The projects included multi-beam hydrographic survey, sediment thickness mapping, sediment characterization, wetland mapping, design of a dewatering/disposal site, state-wide environmental resource permitting (SWERP), and establishing site specific groundwater compliance protocols. These projects also included the use of innovative technology for dredging and dewatering processes.

## Nicholas Gadbois, MS

### Senior Environmental Scientist

Nick has ten years of professional experience in the environmental field. He has served as Environmental Scientist on various environmental projects for the SFWMD, FDOT, FDEP, and USACE. Nick has assisted with wildlife surveys for USACE projects and has obtained several environmental permits from regulatory agencies, conducted permit compliance inspections, and managed contamination studies. His experience includes environmental monitoring, marine and freshwater wetland plant species identification, wetland delineations, wildlife surveys, biological evaluations, and assessments of natural resources providing advice, guidance, and information as a member of interdisciplinary teams.

### Relevant Experience

**SFWMD Technical Support for Monitoring Sheetflow Conditions in the DECOMP Physical Model (DPM) Project, FL. *Scientist.*** Nick is currently providing technical support to SFWMD's Marsh ecology group by assisting researchers during the project's sheetflow test phase. Nick is responsible for field and laboratory-related tasks including field collection of sediment, soil, plant biomass, invertebrates, and water samples, field measurements of water flow and direction, field measurements of sediment entrainment and transport, water quality sampling and processing. His knowledge in the implementation and use of technical field sampling equipment such as SonTek flow tracker ADVs, and in-situ Sonde Hydrolabs was critical to completing field tasks. He has a thorough understanding of SFWMD's SOP for sample collection, handling, processing, and data entry.

**FLL - Terminal 4 Apron Improvement, Broward County, FL. *Scientist.*** The project expanded and reconfigured the existing aircraft apron as part of the Fort Lauderdale Airport Runway improvements for BCAD. Nick was responsible for developing the dewatering packages that was submitted to the regulatory agencies for dewatering authorizations and permits. Dewatering packages included the identification and evaluation of contaminated sites within the project vicinity, calculating radius of influences for each contaminated site, and assisting with the development of remediation options.

**SWPPP Compliance, Palm Beach County, FL. *Scientist.*** The project involved conducting annual SWPPP compliance inspections, reporting, and training services for five Palm Beach County Airports for compliance with their General NPDES permit. Airports investigated included Palm Beach International, North County, Lantana, and Glades Airport. Nick served as the lead inspector responsible for updating and revising the existing SWPPP, conducting annual SWPPP site compliance inspections at each Airport, evaluating compliance with NPDES permit, tenant facilities, inspection, and report preparation for each airport and tenant training for each airport.



#### EDUCATION

M.S., Marine Biology, Nova Southeastern University

M.S., Marine Science, Coastal Carolina University

B.S., Business Administration, Illinois State University

#### 10 YEARS OF EXPERIENCE

#### CERTIFICATIONS

PADI Open Water diving

Florida Stormwater, Erosion and Sediment Control Inspector

Special Permit (Rep-15-13B) Removal of Conditional Reptiles and Transport of Live Burmese Python

## Nicholas Gadbois *Resume Continued*

**NPDES Permit Support, FTE. *Scientist.*** Nick provided permitting support for the FTE NPDES permits. FTE served as co-permittees for the counties in which the Turnpike is present within. Nick coordinated drafting the required annual report which included collecting data from various sources about maintenance operations that have occurred within the FTE right-of-way in each county. Nick also coordinated with the Counties to develop a plan to determine if the FTE was a contributor to TMDLs in each county and prepared letters to the FDEP stating a plan of action to reduce pollutant loads, if any.

**SFWMD Stream Gauging. *Field Support.*** This project entailed utilizing Acoustic Doppler Current Profiler (ADCP) to determine the flow direction and magnitude within SFWMD canals. Nick served as field support to the SFWMD assisting with and leading data collection efforts.

**L-31E Flow Way Culverts 712A and 712B, Miami Dade County, FL. *Field Biologist.*** This project entailed installing two new culvert pipes to enhance the flow of water from the FL Everglades to Biscayne Bay. Nick served as the Field Biologist responsible for the conducting pre-construction surveys of the project area to identify the presence of nesting activity of wood storks, bald eagles, migratory and wading birds as well as monitoring for the presence of the Eastern indigo snake, gopher tortoise, manatee, sea turtle, small-tooth sawfish, and the American Crocodile within the construction area. Other responsibilities included training construction personnel how to identify the target species and instructions for field staff to take turbidity measurements adjacent to the construction site.

**Northlake Boulevard from East of Hall Boulevard to Coconut Boulevard, Palm Beach County, FL. *Project Manager.*** This project entails widening Northlake Boulevard. Nick is the Project Manager responsible for conducting wetland delineations and obtain the environmental permits from the regulatory agencies. He is also responsible for conducting species specific surveys along the project area.

**SR-710/Beeline Highway PD&E Study, Palm Beach & Martin Counties, FL. *Environmental Scientist.*** This project consisted of the NEPA Study for widening the existing state road for a total length of approximately 25 miles. Nick was the Environmental Scientist responsible for assisting with the ArcGIS interpretation of the construction impacts to wetland habitats. Other duties also included serving as technical reviewer for the Wetland Evaluation Report and the Endangered Species Biological Assessment Report. He also conducted annual wildlife surveys for the crested caracara, red cockaded woodpecker, and Everglade snail kite.

**Modifications to SR 90/Modified Water Deliveries Project to Everglades National Park, Miami-Dade, FL. *Field Biologist.*** This project involved the raising of a 10-mile stretch of Tamiami Trail, including a one-mile bridge to help restore historic flow of water through the Everglades. Nick served as the Field Biologist responsible for the daily monitoring of nesting activity of wood storks, Everglade snail kites, and migratory and wading birds as well as monitoring for the presence of the Eastern indigo snake, gopher tortoise, and Everglades mink within the construction area. Other responsibilities included wetland monitoring and collecting/analyzing water samples for turbidity. Daily, weekly, and monthly reports were generated summarizing the monitoring observations.

**Design Services for the SR 7 Extension from SR 704/Okeechobee Boulevard to Northlake Boulevard, Palm Beach County, FL. *Field Biologist.*** Nick assisted with conducting a nested survey in the along the corridor for the SR 7 extension project. The nested surveys were used to determine if the areas were wetlands. Nick assisted with establishing survey locations and identifying flora species. He was responsible for conducting species surveys to identify nesting of snail kites and sandhill cranes. Sandhill nesting observations were conducted by interpreting drone photography and field verifying potential nesting locations.

**Palmetto Park Road from Military Trail to west of I-95, Palm Beach County, FL. *Project Manager.*** This project is to widen the existing roadway to alleviate traffic congestion. Nick served as the project manager responsible for providing environmental and permitting support to the Palm Beach County. Responsibilities include wetland delineations, wildlife survey, and agency coordination.

## Stephen Goetzinger, MS

### Air Quality and Noise Analyst

Steve has 13 years of experience in modeling air quality and aviation noise impacts. Steve has a deep knowledge of aviation practices and environmental concepts through preparation of environmental analyses of airspace procedures at over 40 airports across the United States including LGA, BWI, MSP, ATL, JFK, IAD, and BOS. He has expertise generating air quality emission inventories and noise modeling for airport projects of all sizes and incorporation of these studies into EISs, EAs, and various special studies. Stephen is proficient in the use of multiple environmental models including the AEDT, the AEST, the DOD's model of aircraft flight (Nmap), the RNM, the EMFAC, the EPA's CAL3QHC roadway modeling system, and the Motor Vehicle Emissions Simulator (MOVES).

### Relevant Experience

**Air Traffic (AT) Environmental Policy Team in the FAA and Performance-Based Navigation (PBN) Office in the FAA.** *Technical Lead.* In both offices, the work consisted of preparing environmental modeling simulations of PBN procedures to determine if a CatEx was applicable in each case. Steve streamlined the modeling process through automation and worked to produce a more consistent accurate product through improved information management within the modeling group.

**CLT New Runway Environmental Impact Statement (EIS), Charlotte, NC.** *Noise and Land Use Technical Lead.* ESA, as part of a project team, was performing an EIS to evaluate the potential impacts of CLT's proposal to add a fourth parallel runway as well as related concourse and parking expansions. Steve managed and oversaw the Land Use section, Noise section, and Noise Technical appendix of the Affected Environment (AE) section of the EIS document. Drawing on his comprehensive AEDT experience, he gathered the extensive airport operations data for compiling into the environmental model and presented the required noise impacts within the AE section of the NEPA document. He planned and participated in meetings with various local planning commissions to collect land use data in order to complete these document sections thoroughly.

**PANYNJ Part 150 Studies for JFK and LGA New York City, NY.** *Technical Lead.* ESA is preparing the 14 CFR Part 150 Noise and Land Use Compatibility Studies for LGA and JFK. Steve played a primary role in conducting a housing analysis in the vicinity of both airports for the purpose of estimating noise mitigation costs. He helped develop the project plan for the analysis, was on-site collecting and cataloging housing data, performed extensive data analysis of the housing data, and prepared the project report within a tight deadline.



#### EDUCATION

M.S., Air Quality, North Carolina State University

B.S., Chemistry, University of Michigan

#### 13 YEARS OF EXPERIENCE

#### PROFESSIONAL AFFILIATIONS

Member, Airports Council International North America, NEPA Working Group

Member, Airports Council International North America, Noise Working Group



## Stephen Goetzinger *Resume Continued*

**Fresno International Airport (FAT), Fresno, CA.** *Air Quality Analyst.* Steve helped prepare the air quality analysis in support of the EA for the proposed projects from the MPU at FAT. He identified and characterized all airport-related air emissions sources, prepared emissions inventories (including emissions from construction activities) for General Conformity, and performed dispersion modeling for NAAQS compliance using EDMS/AERMOD. The CALTRANS EMFAC2002 model and FAA's EDMS computer program were used to calculate emissions from aircraft, motor vehicles, ground support service vehicles, fuel storage and handling, and other stationary sources.

**PEARS II in support of the FAA, Washington, DC.** *Deputy Project Manager.* As part of the multi-year, multi-million dollar PEARS II contract, Steve is managing a project that consists of environmental modeling with the end goal of enhancing aircraft modeling and assessment capabilities within the aviation environmental tool suite in supporting the Office of Environment and Energy (AEE) at the FAA. The project is looking at different types of aircraft and fleet level environmental performance and working to quantify the related tradeoffs and interdependencies in support of the FAA's environmental mission.

**Emission Inventories, Washington DC.** *Air Quality Analyst.* Steve prepared emission inventories and data to assist the Metropolitan Washington Council of Governments (MWCOC) in preparing their 8-Hour Ozone State Implementation Plan (SIP) submittal in reference to Washington Dulles and Ronald Reagan Airports. He used EDMS and MOBILE6.2; the emission inventories included CO, VOC, NOx, PM2.5, PM10, and SO2 emissions from aircraft, ground service equipment, auxiliary power units, mobile lounges, onsite motor vehicles, and parking facilities.

**Humboldt County Airports (ACV) ALUCP Update, Eureka, CA.** *Lead Noise Analyst.* Steve is performing noise analyses for the update to the Humboldt County ALUCP in support of the ACV Land Use Commission. The ALUCP addresses compatible land use for areas around eight airports, including CA-Redwood Coast-Humboldt Airport, Murray Field, Samoa Field Airport, Kneeland Airport, Rohnerville Airport, Dinsmore Airport, Garberville Airport, and Shelter Cove Airport. The multiple AEDT noise studies include collecting and confirming the relevant airport activity data with multiple local officials, converting the data into a format for use in AEDT, and preparing the details of the noise analysis for presentation to the client.

**SUA Noise Exposure Map Update, Stuart, FL.** *Noise Analyst.* ESA is preparing a 14 CFR Part 150 Noise and Land Use Compatibility Study update to the Noise Exposure Map (NEM) at SUA in support of the Martin County Board of County Commissioners. This project is currently in the process of updating the NEM as part of the larger Part 150 Process. Steve has been overseeing the noise analysis for the project as well as participating in the related public meetings. He has worked to process airport operations data, prepared operational forecasts for the airport, and written technical documents all in support of this noise analysis.

**FLL Part 150 Study, Fort Lauderdale, FL.** *Noise Analyst.* ESA is preparing a 14 CFR Part 150 Study to address noise concerns. This Study evaluates aircraft noise compatibility of FLL, following the opening of a new south runway. Steve has supported the project by participating in the public involvement related to the NEMs and preparing the standard comment responses to respond to the public comments related to the Part 150 Study.

**Steve was a member of the AEDT development team in support of FAA-AEE.**

**He provided beta testing and suggestions to the AEDT development team as they worked to make this model a robust and useable environmental model.**

## Chris Jones, AICP, JD

### Senior Managing Associate

Chris has more than two decades of project management experience, including more than fourteen years of experience in the environmental field as a project manager, technical lead, and author of NEPA environmental documentation for various aviation, transportation, land use, and energy projects. He has a depth of experience in evaluating the environmental effects of airspace procedure changes including several FAA Metroplex projects across the United States. He also has experience in the preparation of ALCUP for airports in the State of CA. His technical experience includes preparing aviation-related noise, air quality, GHG, and land use studies. He has expertise in GIS and experience in the use of various modeling software used for noise and air quality analyses. In addition, Chris has experience coordinating agency consultation and project permitting with both federal, state, and local agencies.

### Relevant Experience

**SEA On-call Noise Consulting Services, Seattle, WA.** *Technical Analyst.* Chris assisted the Port of Seattle by overseeing preparation of a multi-year GIS analysis of flight tracks for aircraft landing at SEA to determine if there were any changes in approach altitudes. The results were documented in a PowerPoint presentation that was presented to the Highline Forum.

**Rio Vista ALCUP, Solano County, CA.** *Technical Analyst.* Chris assisted Solano County in finalizing the update to the Rio Vista ALUCP. Changes in the regulatory environment, aviation forecasts and noise contours, as well as updates to general plans and specific plans of surrounding jurisdictions, necessitated the need for the ALUCP update.

**MTH Land Use Compatibility Plan Update, Mather, CA.** *Project Manager.* Chris is assisting the Sacramento Area Council of Governments with the update to the MTH ALUCP. The ALUCP will address compatible land use for areas around MTH. Chris will manage preparation of the Draft ALUCP the development displacement analysis, and the required CEQA documentation.

**EA for the Eastgate Air Cargo Facility at San Bernardino International Airport(SBIAA), San Bernardino County, CA.** *Technical Analyst.* The SBIAA Authority SBIAA proposes to develop a large-scale air cargo facility at the Airport. Approval and implementation of the project requires completion of an EA under NEPA. Chris is assisting the SBIAA by providing technical expertise on the potential impacts to low-income and minority communities, as well as writing and editing several sections of the EA.



### EDUCATION

Juris Doctor, Northwestern School of Law, Lewis & Clark College

B.A., Sociology, University of Minnesota, Twin Cities

### 20 YEARS OF EXPERIENCE

### CERTIFICATION

American Institute of Certified Planners, #024512

### PROFESSIONAL AFFILIATIONS

American Planning Association  
 Transportation Planning Division  
 Federal Planning Division  
 Environmental Planning Division

## Chris Jones *Resume Continued*

**Amador County Westover Field (KJAQ) ALCUP, Amador County, CA.** *Technical Analyst.* Chris is assisting Amador County in finalizing the update to the KJAQ ALUCP. Tasks included ALUCP document review and edit, response to comments on the Draft ALUCP, presenting the Draft ALUCP at two Airport Land Use Commission meetings, and representing the County in meetings with the public and other stakeholders.

**ACV ALCUP Update, Humboldt County, CA.** *Project Manager.* Chris is assisting the ACV Land Use Commission with the update to the Humboldt County ALUCP. The ALUCP addresses compatible land use for areas around eight airports, including CA-Redwood Coast-Humboldt Airport, Murray Field, Samoa Field Airport, Kneeland Airport, Rohnerville Airport, Dinsmore Airport, Garberville Airport, and Shelter Cove Airport. Chris is the primary author of the Draft ALUCP. He will also oversee preparation of the development displacement analysis and the required CEQA documentation.

**Santa Barbara County Airport (SBA) ALCUP, Santa Barbara, CA.** *Project Manager.* Chris is assisting the Santa Barbara County Association of Governments with the update to the Santa Barbara County ALUCP. The ALUCP addresses compatible land use for areas around five airports, including SBA, SBSM, Lompoc Airport, Santa Ynez Airport, New Cuyama Airport, and Vandenberg Air Force Base. This project is being completed in two phases. During the first phase, Chris was responsible for managing the GIS team that produced the compatibility factors for each of the five airports. During the second phase, Chris managed updates to the operational assumptions used to develop the compatibility factors completed during the first phase and will oversee preparation of the development displacement analysis as well as the appropriate CEQA documentation.

**Lake Tahoe Airport (TVL) ALCUP Update, South Lake Tahoe, CA.** *Project Manager.* Chris is assisting Lake Tahoe Airport Land Use Commission with the update to the Lake Tahoe ALUCP. The ALUCP addresses compatible land use for areas around TVL. Chris is the primary author of the ALUCP and oversees preparation of the development displacement analysis and the appropriate CEQA documentation.

**NorCal Metroplex Project EA.** *Project Manager.* Prior to joining ESA, Chris managed the EA for the Northern CA (NorCal) Metroplex Project for the FAA. The NorCal Metroplex Project redesigned arrival and departure procedures for aircraft operations at San Francisco International Airport, Oakland International Airport, SJC, Oakland International Airport (OAK), and Sacramento International Airport (SMF). Chris was the primary author of the EA. He managed the GIS technical analyses conducted for the Project; supported the FAA at meetings with community groups and local, state, and federal agencies, and represented the project at Public workshops throughout the Project study area. Chris also managed the Section 106 consultation process, the preparation of responses to comments received on the Draft EA, and the preparation of the project Administrative Record.

**SoCal Metroplex Project EA.** *Co-Project Manager.* Prior to joining ESA, Chris co-managed the EA for the Southern CA (SoCal) Metroplex Project for the FAA. The SoCal Metroplex Project redesigned arrival and departure procedures for aircraft operations at 21 Southern CA airports, including LAX, San Diego International Airport (SAN), Bob Hope Airport (BUR), and Ontario International Airport (ONT). In addition to being the primary author of the EA, Chris managed the GIS technical analyses prepared for the Project, prepared Google Earth KML files depicting the Project alternatives for public review, coordinated Section 106 consultation with the SHPO and various Tribal Historic Preservation Officers (THPOs), and represented the Project at public workshops throughout Southern CA in support of the EA and Project implementation. Chris also managed preparation of responses to comments received on the Draft EA and oversaw preparation of the Administrative Record.

**CLT, ATL, and DC Metroplex Projects EAs.** *Deputy Project Manager.* Prior to joining ESA, Chris served as Deputy Project Manager in preparation of EAs for the CLT, ATL, and Washington DC Metroplex Projects for the FAA. Chris was the primary author of the EAs, supported the FAA at public workshops in the CLT Metroplex Project study area, managed the Section 106 consultation process, and prepared responses to comments received on the Draft EAs for the CLT and DC Metroplex Project EAs.

## Mike Leech, MS, GISP

### Director, Geospatial Services

Mike has over 19 years of experience managing and supporting large geospatial, database and web application development projects for water resources, aviation, natural resources, and conservation-focused applications. He has managed and led teams responsible for technology services including mobile data collection, satellite image processing and dynamic data visualizations. Mike has served as a technical project manager for clients ranging from local jurisdictions to international organizations. He has provided GIS and technical services support to help solve complex environmental problems. He has also developed curricula for intensive hands-on courses for the Northwest Environmental Training Center in areas of GIS software applications, spatial database development, and information management.

### Relevant Experience

**FLL Part 150 Study, Fort Lauderdale, FL.** *Comment Tracker System Lead.* ESA prepared a 14 Code of Federal Regulations (CFR) Part 150 Study to address noise concerns. This Study evaluated aircraft noise compatibility of FLL, following the opening of a new south runway. Mike helped implement ESA's comment management software, Comment Tracker, to streamline the review and response to comment process.

**SFO Airport Development Plan EIR, San Francisco, CA.** *GIS Manager.* ESA is currently working on a complex EIR for the SFO's next long term masterplan—the Recommended Airport Development Plan—that will support the strategic development of the airport over the next two decades. ESA managed the EIR for SFO's previous 1989 masterplan (EIR certified in 1992), which served the continuous growth of the airport over the last 25 years. The current masterplan outlines critical strategies to improve the passenger experience, accommodate an estimated increase of 20 million air passengers, and plan for more sustainable and efficient ways to meet the state's environmental goals. Mike is managing all GIS aspects related to geodatabase development, spatial analysis and cartography.

**SEA On-call Noise Consulting Services.** *GIS Lead.* Mike worked closely with the project team and the Port of Seattle by providing technical support with a multi-year GIS analysis of flight tracks for aircraft landing at SEA to determine if there were any changes in approach altitudes. The results were documented in a PowerPoint presentation that was presented to the Highline Forum. Analysis results included data visualizations derived from GIS and Tableau along with photo visual simulations of aircraft sizes depicted from ground elevation.



#### EDUCATION

M.S., Geography, Western Washington University (Emphasis in Resource Conservation & Management)

B.A., Biology, Indiana University

B.A., Environmental Studies, Indiana University

#### 19 YEARS OF EXPERIENCE

#### CERTIFICATION

Certified Geographic Information Professional (GISP) by the GIS Certification Institute (GISCI)  
License # 61857

Certified Professional Scrum Master by Scrum.org

#### TECHNICAL SKILLS

UAS/Drone, GPS and Data Collection: DJI Phantom 4 Quad, DJI Inspire 2, Pix4DCapture, ESRI Collector for ArcGIS, Survey123, Fulcrum, OpenDataKit, Python, Remote Sensing and Image Processing: eCognition, Orfeo, Pix4DMapper, Image Analyst.

## Mike Leech *Resume Continued*

### **Los Angeles World Airports Mitigation Measure Reporting Program (MMRP) Data Collection and Reporting System Development, Los Angeles, CA.**

*Project Manager.* ESA is supporting LAWA's Environmental Programs Group (EPG) effort to streamline environmental management of all MMRP projects associated with the LAX and Van Nuys general aviation airports (VNY). ESA developed a customized environmental compliance and reporting system that streamlines monitoring and data collection, automate the reporting process, and provides EPG with a compliance tool to integrate and manage existing and future projects. The ESA team developed all of the standardized forms, dashboards, and functions associated with the system. The system automates LAWA's internal document review, approval processes, and inspections using the standardize field forms. The system also includes a fully integrated GIS to allow LAWA to track compliance issues by location. Monitors can access data and field forms on mobile devices, increasing the efficiency of data collection.

**Modesto City-County Airport (MOD) Environmental Planning Services – CEQA.** *GIS Analyst.* Mike managed the staff that provided as needed environmental planning services to the MOD. ESA provided services including arborist surveys, preparation of an arborist report, preparation of NEPA and CEQA documentation and specialized assistance including preparation of federal airport improvement program grant applications. The project received a CatEx from the FAA and the CEQA work was certified by the City of Modesto.

**UAV (Drone) Surveys for Mitigation and Monitoring, King County, WA.** *Project Manager.* ESA worked with the King County Wastewater Treatment Division (WTD) Mitigation and Monitoring Program (Program) to use a small Unmanned Aerial Vehicle (UAV) for evaluating three mitigation sites that are currently being maintained by Program staff. The purpose of the surveys was to capture current very high resolution imagery to quantify vegetative and non-vegetative cover types as part of site management and reporting. The processed orthomosaics and cover type classifications from the drone surveys are helping to provide King County with the most up-to-date conditions at the sites, meet performance standards as per permit requirements, and streamline data collection for use in reporting. Mike managed all aspects of this project.

**ESA Comment Tracker.** *Project Manager.* ESA prepares environmental assessments, impact reports, and environmental documentation on a wide range of projects for local agencies and organizations that include a public comment process. Collecting, reviewing, and responding to public comments can be a time-consuming endeavor, particularly on large complex projects involving dispersed teams and multi-agency review. ESA has developed Comment Tracker, a web-based comment management system to collect, track, and manage comments through the review and response process. This tool dramatically improves collaboration and simplifies the response workflow to deliver a more complete final document within a tighter timeframe. Mike is managing all implementations of ESA's Comment Tracker across the company.

## Michael Mulbarger

### Senior Traffic Noise Analyst

Mike has over 16 years of experience providing technical analysis, project management, and field support on a variety of environmental assessments for the FDOT, Washington State Department of Transportation (WSDOT), and the CA Department of Transportation (CalTrans) during both the planning and design phases. He has provided support in the monitoring of existing conditions, as well as the computer modeling and prediction of project related impacts and the development of noise abatement alternatives. Mike has received formal training in the Federal Highway Administration’s TNM, Highway Traffic Noise Analysis from the National Highway Institute, is certified by the FDOT to perform traffic noise analysis, and is a qualified lead analyst for the preparation of noise studies for WSDOT. He is also a past member of the ADC40 Committee on Transportation-Related Noise and Vibration of the Transportation Research Board, and a current member of the FDOT Noise Task Team.

#### Relevant Experience

**NW 87th Avenue Interchange at SR 836 Design, Miami Dade County, FL.** *Project Manager and Lead Technical Analyst.* Mike served as ESA’s Project Manager and lead technical analyst for the design phase noise study of this interchange operated by the Miami Dade Expressway Authority (MDX). Included in the abatement recommendations was a “noise barrier system” consisting of three individual noise barriers that have the potential to reduce traffic noise levels at up to 80% of the noise sensitive receptors predicted to be impacted by the project.

**Interstate 4 Ultimate Improvements Pre-Construction/Background Noise Monitoring, Orange and Seminole Counties, FL.** *Project Manager and Lead Technical Analyst.* Mike assisted with the development of a large scale noise monitoring effort to determine background and pre-construction noise levels at sensitive receptors adjacent to this 21-mile highway reconstruction project located in FDOT District 5. Seventy-three long term noise monitoring locations were selected as representative of the various noise sensitive areas, with sound level data collected on multiple non-consecutive days and averaged to determine an average level for each noise sensitive area. This data was used to determine if noise levels due to construction activities would exceed acceptable thresholds in which case corrective actions would be taken to meet project technical requirements.

**Interstate 95 at Spanish River Interchange Design Noise Study, Palm Beach County, FL.** *Project Manager and Lead Technical Analyst.* Mike served as ESA’s Project Manager and lead technical analyst in the design phase evaluation of potential traffic noise impacts and abatement measures for the proposed Spanish River Interchange at 1-95 in Palm Beach County. The project also included the evaluation of the addition of auxiliary lanes on 1-95 from Glades Road to Congress Avenue.



#### EDUCATION

B.S., Environmental Science,  
University of Tampa

#### 16 YEARS OF EXPERIENCE

#### PROFESSIONAL AFFILIATIONS

Appointed Member  
of Committee ADC40,  
Transportation Research Board  
(2006-2015)

FDOT Noise Task Team

#### CERTIFICATIONS/TRAINING

Certified Traffic Noise Analyst  
by the FL Department of  
Transportation (FDOT)

Qualified Lead Analyst for  
Preparation of Noise Studies –  
Washington State Department of  
Transportation (WSDOT)

FHWA Traffic Noise Model  
(Bowlby & Associates, 2002)

FHWA Traffic Noise  
Fundamentals (Bowlby &  
Associates, 2002)

Highway Traffic Noise (National  
Highway Institute Course  
#142051, 2010)

## Mike Mulbarger *Resume Continued*

**FDOT Office of Environmental Management (OEM) Environmental Support On-Call Contract.** *Project Manager and Lead Technical Analyst.* Mike led this 5-year on-call contract for ESA to provide as-needed traffic noise and air quality support for the FDOT OEM in Tallahassee. Work orders under this contract included the development of a statewide traffic noise modeling and analysis “Practitioners Handbook”, peer review of traffic noise and air quality analyses, coordination of the statewide Noise Task Team, the development and instruction of two FDOT traffic noise training courses, and major revisions to Chapters 16 (Air Quality) and 17 (Noise) of the FDOT PD&E Manual.

**Interstate 75/University Parkway Interchange Design Noise Study, Sarasota & Manatee Counties, FL.** *Project Manager and Lead Technical Analyst.* Mike served as ESA’s Project Manager and lead technical analyst in the evaluation of traffic noise impacts and development of the noise barrier design for multiple communities within the project limits. This project also involved extensive public involvement to determine community preferences related to the potential noise abatement to be constructed with the improvements. The project resulted in the construction of one of the first Diverging Diamond Interchanges (DDI) within the state of FL.

**Interstate 75 at Bee Ridge Road Interchange Design Noise Study, Sarasota County, FL.** *Project Manager and Lead Technical Analyst.* Mike is currently serving as ESA’s Project Manager and Lead Technical Analyst for this design change reevaluation which has included extensive public involvement and the evaluation of over twenty noise barriers as a potential abatement measure for predicted traffic noise impacts.

**US 27 Design Noise Study from Ritchie Road to Barry Road and from Barry Road to US 192, Polk County, FL.** *Deputy Project Manager and Lead Technical Analyst.* Mike assisted in the management of the noise studies for two design phase projects on this 8-mile segment of US 27 to determine whether noise abatement barriers recommended during PD&E will be provided during the design and construction of these projects. A Noise Study Report Addendum was prepared and used to support the abatement recommendations.

**FDOT OEM Environmental Support On-Call Contract.** *Project Manager and Lead Technical Analyst.* Mike served as the Project Manager and technical lead for this 5-year on call contract for ESA to provide as needed noise and air quality support for the FDOT OEM in Tallahassee. Work orders received under this contract include the following: Traffic Noise Modeling and Practitioner’s Handbook; Traffic Noise Training Courses; FDOT Traffic Noise Policy Revisions; Additional Guidance Development; Programmatic Agreement with FHWA; and Peer Review of Noise Studies.

## Amy Paulson, MS

### Senior Environmental Planner and Analyst

Amy brings over 22 years of wide-ranging project experience spanning regulatory agency, military, tribal, international, local government, and community-based environmental programs and clients and the preparation of complex analysis documents, management plans, policy guidance documents, and website content. She has managed large, complex NEPA and environmental analysis projects to include both EAs and EISs, composed of internal subject matter expert teams, analysts, and subcontractors, as well as external teams including Army, Navy, Marine Corps, Air Force, and National Guard, FAA Fish and Wildlife Service, National Marine Fisheries Service, and NASA as proponents and cooperating agencies. She routinely manages stakeholder involvement including client and agency interactions, the conduct of public presentations and hearings, trainings, and team building workshops as well as successful conflict mitigation, dispute resolution, and advanced negotiation facilitation.

In addition to her NEPA experience, Amy has designed, implemented, and integrated Environmental Management Systems (EMS), pollution prevention (P2), and Sustainability Programs at various Army Garrisons in Germany and DOD installations across the U.S., and regularly provides technical expertise regarding the integration of Master Planning processes with renewable energy technologies, green infrastructure, and sustainability planning. Amy has developed Habitat Management Plans for various U.S. Fish and Wildlife Service National Wildlife Refuges, including facilitation of priority-setting workshops with Refuge personnel and other federal and local partners; developed various Navy and Marine Corps Master Plans and Encroachment Plans throughout the U.S., (including the integration of city, installation, airspace, and landscape elements); and performed multiple environmental compliance and pollution prevention assessments at Army installations across the world.

### Relevant Experience

**ZPH, EA for the Extension of Runway 1-19, FL.** *Project Manager / Senior Analyst.* Proposed Project includes a 1,506-foot extension of the existing ZPH runway and a 1,700-foot taxiway extension to meet selected critical design aircraft specifications; the establishment or improvement of associated runway and taxiway safety areas; the relocation of an existing road; private property acquisition; the grading, alteration, and improvement of existing stormwater management features; and coordination and mitigation of special status species habitat within the Proposed Project footprint. EA was completed within reduced timeframe and within the specifications of the Orlando ADO EA template.



#### EDUCATION

M.S., Conservation Ecology and Sustainable Development, University of Georgia

B.S., Ecology, University of Georgia

#### 22 YEARS OF EXPERIENCE

#### TRAINING

Senior NEPA Practitioner

Sustainability Development and Resiliency Planning

Ecology / Watershed and Habitat Management and Planning

Facilitation, Negotiation, and Conflict Management

Environmental Management Systems and Pollution Prevention

Master Planning / Military Installation Encroachment Control Planning

Renewable Energy Systems (including Solar and Marine)

Environmental Compliance Auditing



## Amy Paulson *Resume Continued*

**X23, EA for the Extension of Runway 1-19, FL.** *Project Manager / Senior Analyst.* Proposed Project includes a 500-foot extension of the existing X23 runway and taxiway to reduce operational limitations and increase aircraft operational flexibility, the establishment or improvement of associated runway and taxiway safety areas, and coordination and mitigation of special status species within the Proposed Project footprint. EA was completed within reduced timeframe and within the specifications of the Orlando ADO EA template.

**F45, EA for the Extension of Runway 13-31, FL.** *Project Manager / Senior Analyst.* The proposed project includes a 1,300-foot extension of the existing F45 runway and extension, relocation, and connection of the existing taxiway; the establishment or improvement of associated runway and taxiway safety areas to selected design standards; replacement of aircraft apron; relocation of airport entrance and sections of existing airport access road; grading, alteration, and improvement of existing stormwater management features; and coordination and mitigation of special status species and wetland habitat within the Proposed Project footprint.

**PIE Master Plan EA, FL.** *Project Manager / Senior Analyst.* The proposed project is consistent with the ongoing County land use and Airport master planning processes and includes site preparation for the establishment of an industrial park over a previously developed 131-acre parcel of land adjacent to existing runways. The conceptual development plan includes aviation-related development (new partial parallel taxiway, new aircraft parking apron, aircraft storage, large aircraft maintenance, air cargo, and other aviation support facilities) and compatible non-aviation uses (medium to light manufacturing, office space, and technology research and development). Redevelopment of the Parcel is intended to increase airport revenue and support local economic development initiatives. Project included coordination and mitigation of special status species and their habitat within the Proposed Project footprint. EA was completed within reduced timeframe and within the specifications of the Orlando ADO.

**APF Master Plan Environmental Overview, Sustainability and Resiliency Planning, and Waste Audit, FL.** *Technical Subject Lead for Resiliency and Sustainability.* Resiliency Plan included analysis of asset vulnerability and recommendations for increasing resiliency and adaptability of airport infrastructure and facilities. Sustainability Plan included work group facilitation to select focal areas, analysis of historic resource consumption and waste generation data, and preparation of goals and programs.

**Snohomish County Airport / Paine Field (PAE) EA for Amendment to the Operations Specification for Air Carrier Operations and Amendment to a Part 139 Airport Operating Certificate, Everett, WA.** *Senior Technical Analyst* supporting the development of public hearing materials and agency public comment responses. The Proposed Project would amend the Operations Specifications for Alaska Airlines and United Airlines to conduct scheduled commercial air service at PAE and would amend the Paine Field Part 139 Airport Operating Certificate. The Specifications amendment includes the provision of up to 24 round-trip flights per day and the anticipated need for larger-capacity aircraft to accommodate potential growth or seasonal peaks. The Proposed Action is needed to meet the demand for commercial air service within the greater Seattle area as identified by the requesting airlines.

**Installation Comprehensive Sustainment Plan (ICSP) and Environmental Assessment for Installation Comprehensive Sustainment Plan, Fort Benning, GA.** *Technical Project Manager and Lead Analyst.* Preparation of a Ft Benning ICSP and Programmatic EA for the ICSP at Fort Benning Army Base, Columbus, Georgia. The ICSP integrated the Ft Benning sustainability and master planning programs and incorporated planned construction, training, and installation management activities documented in Major Construction, Army Construction Program; Range and Training Land Program; Integrated Operational Noise Management Plan; Fort Benning Army Compatible Use Buffer Program and Joint Land Use Study; Integrated Natural Resources Management Plan; Integrated Cultural Resources Management Plan; Pollution Prevention Plan; and Environmental Management System.

## Brendon (BJ) Quinton, MS, GISP

### Biologist and GIS Analyst

BJ brings more than eleven years of experience as a GIS analyst and biologist. He is skilled in the applied knowledge of wetland ecology, wildlife biology, wetland regulations, and environmental data analysis and mapping. BJ has extensive GIS mapping and interpretation experience and has conducted ecological evaluations, wetland mapping and characterization studies, listed species surveys, project prioritizations, and other complex multi-faceted analyses. BJ is ESA's lead GIS analyst in FL and the Southeast.



#### EDUCATION

M.S., Environmental Science and Policy, University of South Florida

Graduate Certificate, GIS Systems, University of South Florida

B.S., Biology, University of South Florida

#### 11 YEARS OF EXPERIENCE

#### CERTIFICATIONS

FAA Certified Drone Pilot, License #4056353

FAA Qualified Airport Wildlife Biologist

Geographic Informations Systems Professional (GISP), GIS Certification Institute #90722

Authorized Gopher Tortoise Agent, FWC Permit #GTA-14-00065

Commercial Pesticide License, FDA License #CM23049

#### PROFESSIONAL AFFILIATION

Tampa Bay Association of Environmental Professionals

### Relevant Experience

**LAL On-Call Environmental Services, Lakeland, FL.** *Environmental Specialist.* BJ supports the regulatory compliance at LAL by providing maintenance, monitoring and reporting for two onsite wetland creation areas. The documentation for permitting and compliance reporting requires extensive mapping and GIS support; BJ manages the GIS data and provides mapping as-needed for LAL projects. He is ESA's Authorized Gopher Tortoise agent, responsible for GPS location, GIS mapping, permitting and relocation of tortoises at LAL. Additionally, he is the FAA qualified airport biologist providing the airport's Wildlife Hazard Management Training (WHMT).

**SRQ Wildlife Hazard Assessment (WHA), Sarasota, FL.** *Airport Wildlife Biologist.* BJ served as the FAA qualified airport wildlife biologist tasked with performing the Wildlife Hazard Assessment (WHA) at the airport. The study involved collection of wildlife data over a 12-month period. At the conclusion of the 12-month period, the data was compiled into a database for analysis. These analyses aided in determining which species and wildlife guilds were most often observed at the airport and which landscape features may be serving as wildlife attractants. GIS analyses included grid hotspot mapping as well as density mapping of individual observations to determine areas of concentrated activity. The results of this study will be used as a guide for updating the airport's current Wildlife Hazard Management Plan (WHMP).

**Flagler County Airport On-Call Environmental Support, Flagler County, FL.** *Environmental Specialist.* BJ completed the wildlife hazard assessment and provided support for the environmental analysis and comprehensive wetland mapping of the entire airport in support of a parallel runway study being conducted as part of the ongoing master plan update. BJ conducted the wetland delineation, comprehensive mapping, functional wetland assessment, and cost estimating and alternatives analysis for the proposed project. BJ conducted the wetland delineation for a runway feasibility study, and will be doing the wetland impact assessments once the Airport provides their alternatives. BJ was also involved in the relocation of gopher tortoises for a new runway.

## Brendon Quinton *Resume Continued*

### **MDAD Environmental Services, Miami, FL.**

*Environmental Specialist.* BJ provided as-needed environmental services in support of ESA's environmental on-call with MDAD. He has conducted WHA at two airports, OPF and TMB.

**SUA, Stuart, FL.** *Environmental Specialist.* As sub-consultant on this General Engineering contract, ESA is responsible for the environmental support for projects at SUA. BJ supported the WHA at the airport and conducted a majority of the field surveys. BJ also supported the development of the airport's WHMP and will support the WHMT.

**LAL Turf Runway CATEX, Lakeland, FL.** *Environmental Specialist.* BJ provided field data collection and GIS services to support a CatEx from the traditional NEPA requirements. Services included collecting GPS locations of wetland extents and gopher tortoise burrows, as well as GIS analysis of other available data sources.

**LAL MRO EA, Lakeland, FL.** *Environmental Specialist.* BJ provided field data collection and GIS services to support an EA for the airport's MRO facility. Field services included delineation of the extent of on-site wetlands and gopher tortoise relocation. GIS services included collecting GPS locations of wetland extents and gopher tortoise burrows, as well as GIS analysis of other available data sources.

**SPG On-Call Environmental Services, St. Petersburg, FL.** *Environmental Specialist.* ESA provides as-needed environmental support for projects at SPG under an on-call contract. BJ provided wildlife monitoring, data collection and management, GIS mapping and analysis, and comprehensive reporting for an ongoing 12-month WHA at the airport.

**ISM On Call Environmental Services, Kissimmee, FL.** *Environmental Specialist.* BJ provided support for environmental services including wetlands, permitting, WHA, and NEPA compliance at ISM. ESA is subconsultant on this Continuing Engineering Services contract with the airport.

**HCAA Environmental Engineering Services, Tampa, FL.** *Environmental Specialist.* BJ supports the NEPA compliance and wildlife, wetlands, permitting, and mitigation services for four airports in the HCAA system. Tasks include GIS mapping, and support for the wildlife hazard program and mitigation compliance.

**Osceola County Land Management Planning (LMP) and Engineering, Osceola County, FL.** *Environmental Specialist.* BJ supported the LMP process by providing all of the GIS analysis and mapping in support of the County's projects. Osceola County has thousands of acres of public lands under their conservation lands program. ESA provides comprehensive land management planning to the County which includes restoration, passive park and recreation planning, prescribed fire plans, listed species habitat support, nuisance and exotic species management, project prioritization, cost estimating and scheduling, regulatory compliance, and project implementation services.

**Overstreet Landing Permit Support, Kissimmee, FL.** *Environmental Specialist.* BJ supported Osceola County with permitting services to develop a fishing pier, ramp and other associated facilities at Overstreet Landing. Services included wetland delineation, GIS mapping, wetland functional assessment, and support for an ERP application.

## Thomas Ries

### Vice President and Senior Scientist

As a scientist for more than 35 years; Thomas Ries has extensive experience in managing and restoring natural resources and has formulated numerous regional land management plans. He has been involved with ecosystem restoration for the over 30 years and has been involved with over 130 habitat restoration and stormwater retrofit projects, many that have won environmental excellence awards. In addition, while employed by the SWFWMD Surface Water Improvement and Management (SWIM) program, Tom developed and managed the Seagrass Mapping Program and oversaw the seagrass trend analysis data from 1988 to 1997 for the entire west central FL coastline. Other experience includes NWI mapping, biotic sampling/analysis, environmental permitting, permit compliance monitoring, environmental construction oversight, and grant writing.

Tom has also managed all phases of construction contracts and consultant services for habitat restoration and stormwater retrofit projects. His knowledge extends to technical abilities that include delineation of both freshwater and estuarine wetlands in accordance with Federal, State, regional, and local definitions. In addition, he has organized and conducted public workshops, public hearings, and technical advisory committee meetings. He also has been selected as mediator and technical advisor for numerous government advisory committees and has worked with neighborhood groups and concerned citizens to achieve consensus for a myriad of environmental topics.

### Relevant Experience

**Safety Harbor Living Shoreline (LS) & Spring Outfall Restoration Project, Pinellas County, FL.** *Project Manager.* The City wanted to replace a dilapidated seawall and needed technical expertise in permitting and grant funding to accomplish their goals. Tom offered design solutions other than just replacing their seawall, instead a LS approach. The City hired ESA to apply for grant funding, design the LS solution and restore a small spring outfall. Tom secured the grant funding and worked with ESA's coastal engineer to design and permit the LS and spring outfall features.

**Broward County LS Support Services Project, Broward County, FL.** *Program Manager.* Broward County is addressing sea level rise by setting seawall design heights and providing residents with design renderings for various seawall enhancement and living shoreline options. ESA was hired to formulate the engineered designs and provide professional renderings to create an informational pamphlet which also included permitting guidance for Broward County residents. Tom worked closely with ESA's coastal engineer to formulate the design options and then presented all of this information to the Shoreline Resilience Working Group.



#### EDUCATION

B.S., Biology/Geology (Minor),  
University of South Florida

#### 35+ YEARS OF EXPERIENCE

#### CERTIFICATIONS

U.S. Coast Guard Captain's  
License 664021

NAUI Diver

#### PROFESSIONAL AFFILIATIONS

Tampa Bay Association of  
Environmental Professionals

National Living Shoreline  
Committee

Technical Advisory Committee  
for the TBEP, SBEP, and CHNEP

FL Association of Environmental  
Professionals

Restore America's Estuary Living  
Shoreline Community – Advisor

## Thomas Ries *Resume Continued*

**Broward County LS Support Services Project, Broward County, FL.** *Project Manager.* Broward County was interested in updating their tree canopy coverage, which ESA's scientists mapped five years earlier. For this effort, ESA's staff employed a remote sensing program to automate the tree canopy mapping effort. Over 3,000,000 polygons were processed and the resultant tree canopy map had a greater than 95% accuracy rating. Tom worked closely with ESA's GIS manager to deliver this mapping product to the County's resources managers.

**Broward County Urban Tree Canopy Study, Broward County, FL.** *Principal Scientist.* ESA was contracted to perform a tree canopy survey of urban Broward County, east of the Water Conservation Areas (approximately 440 square miles). Tom, project manager, is currently providing oversight and QA/QC for the survey effort which based on the most recent false color infrared photography available from the Broward County Property Appraisers Office. Tom will also perform verification of data, including field work, as necessary, to ensure that the accuracy of the analysis is within 90% or greater.

**Lemon Bay Preserve Habitat Restoration Project Charlotte County, FL.** *Principal Scientist.* For this project ESA's scientists were selected to formulate a design plan for the restoration of a former 80-acre golf course along Lemon Bay within Charlotte County, FL. This site had been abandoned since 2006 and was overrun with non-native vegetation; however, this site is recognized as one of the most productive nursery for tarpon in this region. As ESA's PM, Tom helped secure funding from the SWFWMD and then designed and permitted the overall restoration of this site. The tasks included environmental assessments of existing conditions, establishing wetland jurisdictional limits, mapping of the remnant existing native habitats, and developing the overall habitat restoration project plan for the entire site. The primary objective of this project was to expand the current tarpon nursery areas, create oligohaline conditions for other recreationally important fish and avifaunal species, and improve the stormwater runoff that was entering the Preserve and untimely discharging into Lemon Bay. The resultant project will create 8.4 acres of estuarine wetlands and 5.2 acres of freshwater wetlands.

**FISH Habitat Restoration Master Plan, Manatee County, FL.** *Principal Scientist.* The 200-acre FISH Preserve is in critical need of restoration and management necessary to promote revitalization of Sarasota Bay's ecological health. Tom obtained grants, designed, and permitted conceptual plans for the entire Preserve. The final design will result in the creation of 9.4 mangrove wetlands, 1.6 freshwater wetlands and 11.85 upland communities. In addition, the project will also result in the formation of ephemeral and permanent freshwater wetlands, which are vital for foraging wading birds, their young, and several species of frogs. The balance of the site will be restored, via the removal of exotic vegetation, and planted as transitional and upland habitats. Fish and vegetative monitoring will be performed by ESA scientists.

**SPG EA, Pinellas County, FL.** *Principal Scientist.* Tom worked with the City of St. Petersburg as part of the City's St. Petersburg Pier Assessment Team. A component of this project, included an assessment and identification of beneficial reuse potentials for the demolition of the pier and the resultant excess concrete. This project involved the environmental assessment of existing conditions and the determination of potential impacts to wetlands and uplands resulting from the proposed seawall replacement at SPG. Various alternatives for replacing the deteriorating seawall were examined and impacts were calculated for each alternative and documented within an EA report. Tom oversaw the field environmental data collection process, report preparation, and agency coordination for threatened and endangered species, plant communities, wildlife, and land use/land cover. Tom also performed a SAV assessment to identify and map the seagrass communities as well as the Essential Fish Habitat (EFH) areas within the proposed project footprint. A species-specific survey for the FL burrowing owl was also conducted on and near the project site. Tom assisted with the permitting of this project through the Federal, State and local agencies to authorize the placement of the material in such a manner as to not impact any of the natural resources onsite.

## Heidi Rous, CPP

### Director of Air Quality, Climate, and Acoustic Services

Heidi Rous has over 29 years of experience providing comprehensive permitting, compliance, and planning services specializing in air quality, hazardous materials, GHG and risk assessment. She has managed Air Quality Impact Assessments (AQIA) and Health Risk Assessments (HRAs) required under various State and federal environmental regulations including CEQA and NEPA, for large, complex, often controversial transportation, airport, and goods movement projects throughout her career.

Heidi provides expert air quality planning, training, emissions estimations, permitting, compliance, and regulatory tracking services to a diverse clientele including large-scale transportation and industrial complexes such as airports, ports, highway networks, freight and passenger rail operators, and military bases. She has extensive expertise in quantifying, modeling, and mitigating emissions from on-road vehicles (including diesel-, gasoline-, and alternative fuel- powered vehicles), off-road vehicles, aircraft and GSE, trains, and seagoing vessels. In addition, Heidi has managed numerous determinations under the General Conformity and Transportation Conformity rules, including airports and air bases nationwide, and dozens of highway and transit projects throughout CA and the western United States.

### Relevant Experience

**SFO, Recommended Airport Development Plan EIR, San Francisco, CA.** *Air Quality and Greenhouse Gas Technical Director.* Heidi is currently providing strategic technical direction related to the Air Quality Technical Report (AQTR) for SFO’s long term masterplan—the Recommended Airport Development Plan (RADP). Heidi provided strategic input into the development of the AQTR Protocol, and serves as a liaison on technical issues related to the analysis of air quality and greenhouse gas impacts between the client (SFO), ESA’s scientists and engineers, and City environmental planning staff. Heidi will be responsible for assuring adherence to technical objectives.

**Eastgate Air Cargo Facility Project, SBIIA, CA.** *Air Quality and Greenhouse Gas Technical Director.* Heidi provided technical oversight of the performance of a complex air quality impact assessment in support of the project’s NEPA documentation. Heidi led the effort in preparing the Protocol in accordance with FAA, US EPA, and local guidance. The project involves proposed logistics operations on currently idle land; thus the AQIA includes complex air side (AEDT) and land-side (on- and off-road) emissions modeling, and dispersion modeling to demonstrate National Ambient Air Quality Standards (NAAQS) compliance.



#### EDUCATION

B.S. Physics, CA State Polytechnic University, Pomona

#### 29 YEARS OF EXPERIENCE

#### CERTIFICATION

Certified Permitting Professional (CPP), Registered with South Coast Air Quality Management District, #B6027

#### PROFESSIONAL AFFILIATION

Air and Waste Management Association

## Heidi Rous *Resume Continued*

### **LAWA On-Call Air Quality Services, Los Angeles, CA.**

*Project Manager.* Heidi managed the on-call air quality services for all four LAWA airports (LAX, ONT, VNY, and Palmdale). As a part of the contract, she performed a comprehensive fence line-to-fence line environmental compliance audit at LAX; prepared for Title V permit renewal; tracked regulatory developments; prepared HRAs; participated in strategy sessions focused on improving compliance, reducing compliance burdens, and pollution prevention; and prepared permit applications and renewals for various sources including a fuel hydrant system and cement batch plant and SCAQMD negotiations.

### **LAX West Aircraft Maintenance Area Project, Los Angeles, CA.**

*Air Quality and GHG Task Manager.* Heidi led the technical analysis of air quality and GHG impacts in support of the EIR for the West Aircraft Maintenance Area Project, located on 70-acres in the southwestern portion of LAX property. The intent of the proposed Project is to consolidate, relocate, and modernize certain existing aircraft maintenance facilities at LAX consistent with the LAX Master Plan. The consolidation, relocation, and modernization of these facilities would allow for more efficient and effective maintenance of existing aircraft at the airport, including Airplane Design Group VI aircraft (Airbus A380s and Boeing 747-8s). The proposed Project would include the provision of aircraft hangars and parking positions adjacent to the new aircraft maintenance facilities, employee parking areas, storage, equipment and ancillary facilities. The proposed Project would not increase passenger or gate capacity and would not increase flights and/or aircraft operations at LAX. Nonetheless, potential noise impacts on the nearby residences were key issues for the EIR to successfully address.

### **LAX Central Utility Plant (CUP) Replacement Project EIR Los Angeles, CA.**

*Air Quality, HRA, and GHG Task Manager.* Heidi served as the Air Quality, HRA, and Global Climate Change Lead for the EIR regarding the proposed replacement LAX CUP. The proposed upgrade of the CUP included the burning of renewable fuel (digester gas) to provide power, heating, and cooling to LAX. She provided input regarding potential air quality issues (BACT, ERCs and RECLAIM) to the CUP feasibility study. The analysis included construction emissions of criteria and toxic air pollutants and GHGs, and the beneficial impact (net reduction) of project implementation, due to increased energy efficiency.

### **SFO, San Francisco, CA.**

*Air Quality Project Manager.* Heidi served as Air Quality Project Manager supporting SFO with numerous aspects of air quality permitting and planning. She collaborated with SFO staff and legal counsel to develop potential strategies for the Airport to remain operating outside of the Title V permitting program. She led the technical team that investigated these options, and presented the results to the SFO decision makers. Consequently, she recently completed the initial Title V permit application, including negotiations with Bay Area Air Quality Management District (BAAQMD). She led the permitting support team that has prepared several applications to the BAAQMD for the authority to construct/permit to operate for generators and the gasoline station at SFO. Recently she prepared course materials explaining the monitoring, recordkeeping, and reporting requirements under their current air quality permits and the Title V program. This material is to be presented to shop operators, supervisors, and environmental staff during on-site training scheduled for July. Heidi has been instrumental in helping SFO staff anticipate potential impacts of proposed BAAQMD rule changes, and actively participate in the rule amendment process. She also served as Project Manager for air quality studies in support of SFIA's application under the FAA Inherently Low Emitting Alternative-fueled Vehicle (ILEAV) program. SFIA and some of its tenants are choosing to replace diesel-powered ground support equipment (GSE) with alternative fueled models, including baggage tugs, APUs, and passenger vehicles. The difference in emissions will be calculated using EPA's GSE model.

## Justin Saarinen, MS, GISP

### Technology Analyst

Justin is a GIS Professional with over 20 years of experience in water (water, wastewater, stormwater, hydrology, hydraulics, wetlands) applications in GIS. Current skills including authoring and publishing dynamic story map websites, GIS database administration, and big data analyses and modeling applications. Justin is enthusiastic and excellent communicator, team player and valuable asset to any organization.

### Relevant Experience

#### **GIS-based Modeling of Stormwater Pollutant Loads, Sarasota County, FL.**

*Senior Environmental Scientist, Stormwater.* Justin is the County-lead for a \$100k+ update to a state-of-the-art custom GIS-based pollutant loading estimation model. SIMPLE was developed in 2007, and Justin was a member of the original design team. Current work is migrating to a stand-alone version by re-coding the routines to Python, and databases to SQL server. They are also reconfiguring load estimate modules to support the inclusion of spatial and temporal information about reclaimed water, septic systems, fertilizer application, baseflow groundwater and irrigation. Finally, the goal is to produce data-driven reports readily available for a wide range of dissemination. Model results are directly used for decision making and to support NPDES regulatory requirements.

**Stewarding Water Quality Data, Sarasota County, FL.** *Senior Environmental Scientist, Stormwater.* Justin maintains 20+ years of ambient water quality data collected in the County's creeks, lakes and bays, and assists with managing the current sampling program. This is valuable (over \$2M) database consisting of a high volume, variety and velocity of spatially-enabled water quality information. Justin stewards this database with an Esri Geodatabase and use ArcGIS Pro 2.x to perform queries and reports. Currently the program consists of monthly collection for 115 stations collected and analyzed for many parameters, and multiple important end products for decision making such as technical reports for bay and creek conditions trends displayed on the County's Water Atlas ArcGIS Online webpages, and technical reports for the treatment efficiency of regional capital water quality projects such as the Dona Bay Project, Celery Fields, and Briarwood Treatment Facility.

**Regulatory Reporting, Sarasota County, FL.** *Senior Environmental Scientist, Stormwater.* Justin designs and produces water quality studies and reports for regulatory requirements associated with the County's NPDES permit, including TMDLs, bacteria pollution control plans and annual reporting. These reports require preparation well in advance of due dates, and usually reach into multiple County divisions.



#### **EDUCATION**

M.S., Geography, University of Florida

B.S., Geography, University of Florida

#### **22 YEARS OF EXPERIENCE**

#### **CERTIFICATION**

GIS Professional Certification  
#58212

#### **PROFESSIONAL AFFILIATIONS**

Water and Environment  
Federation

Urban and Regional Information  
Systems Association

Imaging and Geospatial  
Information Society

#### **AWARD**

Undergraduate Research  
Achievement Award



## Justin Saarinen *Resume Continued*

**Director of GIS/Remote Sensing Research and Teaching Laboratory, New College of FL and University of Michigan, FL.** *GIS Research Scientist.* Using a combination of startup funding, and direct and indirect revenue, Justin established a GIS and Remote Sensing laboratory at both the New College of FL (2014) and University of Michigan-Dearborn (2012), including an Esri Educational Site License for each institution. The main focus of these labs were to support funded research projects awarded through a US Department of the Interior Cooperative Ecosystem Service Unit (CESU) agreement worth \$500,000 over 5 years, which Justin managed. These labs were staffed mainly by undergraduate students who performed the work under his supervision, many of whom are currently engaged in successful GIS careers.

**Jacksonville Electric Authority (JEA) Water Demand Information System for Permitting and Planning, Gainesville, FL.** *GIS Project Manager.* JEA is one of the largest public supply utilities in the State of FL. Justin managed the design and implementation of an integrated water demand planning information system for supporting water system planning activities as well as JEA's consumptive water use permit. The system was designed to locate existing and project future water customers and their associated demand with customer profiles, at very fine temporal and spatial scales. The system relates demand to existing and planned infrastructure, including production wells, water plants, and distribution systems. Justin assisted JEA with the development of future water demand projections using this system. The system also provided decision support for scenarios of alternative supply and conservation programs.

**Consumptive Use Permit Reviews, St. Johns River Water Management District (SJRWMD), Palatka, FL.** *GIS Project Manager.* Justin supported water demand projections submitted to SJRWMD by water utilities as part of the permitting process.

**Geospatial/ Geostatistical Analysis and Population and Water Demand Projection Modeling, St. Johns River Water Management District (SJRWMD), Palatka, FL.** *GIS Project Manager.* Justin updated and implemented a comprehensive, spatial model that projects future population and water demand for an 18-county area at the property parcel level to 2030 in five-year increments. The GIS-based model incorporates parcel data, census data, current and future land use/land cover, wetlands, planned developments, transportation infrastructure, utility service area boundaries, and historic water use data.

**Big Bend Wetland Mitigation Bank Feasibility Study, The Thompson Group: Palatka, FL.** *GIS Project Manager.* The Thompson Group represents a large, private land-owner entity along the Gulf Coast of FL. Justin managed the effort to assist The Thompson Group assess the feasibility of a 3,000-acre coastal property for the development of a wetland mitigation bank.

**City of Kissimmee GIS migration, Osceola County, FL.** *GIS Support.* Justin supported the CAD to GIS migration for the City of Kissimmee using automated tools for georeferencing as-built drawings and loading features into appropriate subtypes within a geodatabase.

**Facility Siting Analysis for North Service Area WWTP expansion, St. Lucie County, FL.** *GIS Support.* Justin designed and implemented an ArcMap 8 Spatial Analyst siting model based on client defined criteria to define alternative locations for a future 35 MGD WWTP. Developed a mapbook application to produce a map series of model criterion with base information included in the report to the St. Lucie County BOCC.

**City of Miami GIS Migration, Dade County, FL.** *GIS Support.* Justin supported the CAD to GIS migration for the City of Miami by georeferencing as-built drawings and loading features into appropriate subtypes within a geodatabase.

## Sandra Scheda, MS

### Senior Scientist

As a scientist for more than 35 years, Sandra Scheda has extensive experience in managing and conducting environmental planning projects, biological assessments and related studies and permitting. These efforts have typically involved development of NEPA documentation, wetland delineation, mitigation design, surface and groundwater quality studies, and permitting. Her permitting experience includes projects requiring wetland impact permits, bridge permits, and sovereign submerged land easements. Sandy has extensive experience on transportation projects, focusing on environmental data collection and analysis, development and evaluation of project alternatives, impact assessment, and compiling required environmental documents and permit applications. She is also well-versed in transportation construction designing erosion control, implementing water quality monitoring and protected species protections/monitoring/watch programs, obtaining permit modifications, and conducting regulatory agency liaison. She led environmental permitting and permit compliance efforts for several design-build projects.



#### EDUCATION

M.S., Zoology, B.A., Geology, B.A., Biology, University of South Florida

#### 35 YEARS OF EXPERIENCE

#### CERTIFICATIONS

FDOT PD&E Manual Process Training

FDOT Water Quality Impacts Evaluation

FDEP Wetland Delineation Certification

NAUI Open Water Certification

Environmental Management Office/NEPA Training, FDOT

Mutual Gains Negotiation, FDOT

Construction Contract Interpretation, FDOT

FDOT Water Quality Impact Evaluation, Certification #139

CSX Roadway Worker Protection Contractor Safety

Uniform Mitigation Assessment Methodology, FDEP

FDEP Wetland Delineation Certification

Seasonal High Groundwater Training, SWFWMD

Hydric Soils Training, FDEP

### Relevant Experience

#### **SR 7 Corridor Extension Design & Permitting, Palm Beach County, FL (FDOT D4).**

*Project Manager.* Sandy managed ESA's permitting support efforts for this project which included development of all wetland and protected species information to support permit applications, ongoing annual nesting season snail kite surveys, agency coordination, development of the wetlands and protected species Comprehensive Mitigation Plan, design of the onsite wetland mitigation area, and support to the administrative hearing process associated with the State of FL Environmental Resource Permit.

#### **SR 80 PD&E Study from LaBelle to US 27, Hendry County, FL (FDOT D1).**

*Project Manager/Scientist.* This project involved an impact analysis and study of design alternatives for the widening of 20 miles of SR 80 from 2 to 4 lanes. Also included was a corridor study element that evaluated placing SR 80 on a new alignment from west of Everhigh Acres Road to US 27. Environmental concerns included the presence of the Audubon's crested caracara, bald eagle, FL scrub jay, and FL panther. Sandy conducted field surveys for protected wildlife and plants, evaluated existing habitats and land use, completed the farmlands assessment along with environmental assessments of pond sites, and conducted all agency coordination. Related PD&E documents were prepared (Endangered Species Biological Assessment (ESBA), Water Quality Impact Evaluation, and Farmlands Assessment).

#### **Bee Ridge Road PD&E Study, Sarasota County, FL (FDOT D1).**

*Project Scientist.* On this particular PD&E study, Sandy was responsible for project planning, agency coordination and quality assurance review of all project impacts and documents, including the Wetlands Evaluation Report and Protected Species Technical Memorandum.

## Sandra Scheda *Resume Continued*

**C-43 West Basin Reservoir Design and Permitting, Hendry County, FL.** *Environmental Manager.* For this South FL Water Management District project, Sandy managed all wetlands and wildlife data collection, and permitting for the design phase of this project. An Endangered Species Biological Assessment document was prepared and all USFWS and FWC comments were addressed. Groundtruthing of the existing SFWMD Land Use/Land Cover mapping was performed to verify and describe the various habitat types; the existing mapping was subsequently updated to support this project. ESA scientists conducted extensive general protected species surveys for flora and fauna and, in addition, completed the following species-specific surveys. Other federally listed species of concern included the snail kite, wood stork, and the manatee. The project encompassed approximately 11,000 acres, plus surrounding area, as dictated by various faunal species protection zones. For design for the C-43 West Basin Reservoir project, located at the Berry Groves preferred alternative site, Sandy managed the permitting for the Test Cell Pilot Project and the full reservoir project. ESA scientists also assisted the US Fish and Wildlife Service with the calculation of panther habitat units (PHUs) for the current condition, proposed condition, and potential panther habitat mitigation options. ESA has completed permit applications for this 10,000-acre project site, supported the agency Request for Additional Information process, and all permits have been acquired.

**Magnolia Avenue PD&E Study, Marion County, FL (FDOT D5).** *Quality Assurance Manager.* For this road widening in the City of Ocala, Sandy was the Quality Assurance Manager overseeing the conducted field investigations regarding wetlands and wildlife for the evaluation of roadway alignment alternatives as well as potential stormwater pond sites. She also provided assistance during preliminary agency coordination and quality assurance review of the Wetland Evaluation Report and ESBA.

**I-4 Master Plan & PD&E, Polk County, FL (FDOT D1).** *Project Scientist.* Sandy was part of a multidisciplinary planning and science team for this master planning and PD&E effort for I-4 through Polk and Osceola Counties. She assisted with data collection, impact evaluation and multi-agency coordination regarding various natural environmental corridor-level issues. In addition, she prepared the wetland and protected species sections of related reports.

**US 41 (Enterprise Dr. to Sumter Blvd.) PD&E Study, Lee County, FL.** *Quality Control Manager.* This project involved the widening of approximately 5 miles of US 41 from 4 lanes to 6 lanes. As Chief Scientist on this project, Sandy was responsible for quality assurance on conducted field surveys for protected wildlife and plants, delineated wetlands, reviewed habitats and land use, evaluated areas for Section 4(f) properties, PD&E documents and agency coordination.

**Jog Road Extension Design and Permitting, Palm Beach County, FL.** *Project Manager.* Sandy managed environmental permitting efforts related to this design project for Palm Beach County. Responsibilities include completing the ESBA (and related agency coordination) for the federally-endangered Everglade snail kite, and developing the project purpose and need statement for the Section 404/ERP permit application.

## Chris Sequeira, MS

### AEDT Subject Matter Expert

Chris has 10 years of experience working at the intersection of federal environmental policy, process improvement, and analysis tool development, including six years as an FAA Headquarters project manager leading numerous aviation environmental projects. At the FAA AEE, Chris co-managed the production of the AEDT, which replaced the Integrated Noise Model, the Emissions and Dispersion Modeling System, and the Noise Integrated Routing System. He also co-managed the production of the FAA's Aviation Emissions and Air Quality Handbook. In addition, Chris is proficient at presenting complex environmental topics to large, diverse audiences.

While at the FAA's Air Traffic Organization (FAA ATO), Chris led efforts to enhance community involvement policies, NEPA compliance processes, and analysis tools. He directed a multi-stakeholder effort to refine community involvement practices for air traffic modernization projects, including the FAA's national Metroplex program. Chris also became an early user of AEDT version 2b when he designed and performed a noise analysis of helicopter flight routes at Nashville International Airport.

### Relevant Experience

**FLL Part 150 Study Update, FL.** The study is evaluating the new operational conditions at the Airport stemming from reconstruction and expansion of the south parallel runway. This controversial expansion project resulted in operational changes that not only affected the communities off the ends of the expanded south runway, but also the existing north runway. Measures include noise abatement strategies, a new sound insulation program and numerous programmatic measures. The project is one of the largest noise studies ever undertaken in the southeastern U.S. Chris is leading the production of the Noise Compatibility Program (NCP) on an aggressive schedule in close coordination with the Broward County Aviation Department (BCAD) and the FAA. He also presents complex noise abatement concepts to the study Technical Committee (TC) meetings, which include representatives from multiple municipalities in the vicinity of FLL.

**PIE, Airco Parcel Redevelopment, Clearwater, FL.** *AEDT Subject Matter Expert and Air Quality Analyst.* ESA is leading the production of an EA for redevelopment of a land parcel near PIE known as the Airco Parcel. This includes producing NEPA documentation as well as analyzing potential noise and emissions impacts of the redevelopment. Chris is using the AEDT 2d model to calculate potential impacts of the project on aviation airborne and ground emissions, including emissions from aircraft startup, taxi, auxiliary power unit, and ground support equipment activity. Chris is also leading the construction emissions analysis, using the ACEIT model.

**MDAD Noise Contour Update, Miami, FL.** *AEDT Subject Matter Expert and Project Manager.* As a part of ESA's on-call contract with the MDAD, Chris is overseeing and guiding the use of AEDT 2d to generate noise contours for MIA, OPF, and TMB. He is also overseeing the production of draft and final technical reports documenting the analysis, while managing tasks and budgets for the noise contour production.



#### EDUCATION

M.S., Aeronautics and Astronautics, Massachusetts Institute of Technology

M.S., Technology and Policy, Massachusetts Institute of Technology

B.S., Aeronautics and Astronautics, Massachusetts Institute of Technology

#### 10 YEARS OF EXPERIENCE

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## Chris Sequeira *Resume Continued*

**FAA Policy, Engineering, Analysis, and Research Support II On-Call Contract, Washington, DC.** *ESA Subcontract Project Manager.* ESA is a subcontractor to JD RoVolus as part of the multi-year, multi-million dollar PEARS II on-call contract. This on-call contract enables the FAA to procure a variety of analysis services for offices across the agency. Chris is the overall project manager for ESA's subcontract. In addition, he provides quality assurance and quality control reviews for a PEARS II project that consists of supporting the FAA AEE to enhance FAA aircraft environmental modeling capabilities.

**JFK Runway 13L-31R Upgrade, New York, NY.** *Project Manager and AEDT Subject Matter Expert.* As a subcontractor to Vanasse Hangen Brustlin (VHB), ESA performed the noise analysis associated with a proposed modification to Runway 13L-31R at JFK. Chris reviewed AEDT inputs and oversaw the modeling process while also supporting conversations between VHB, the Port Authority of New York and New Jersey, and the FAA related to modeling requirements for NEPA compliance activities. He also managed tasks and budgets associated with the modeling process. The FAA produced a FONSI determination, allowing construction to proceed.

**DEN Concourse Expansion EA, Denver, CO.** *Project Manager and Air Quality Analyst.* As a subcontractor to Mead & Hunt, ESA analyzed and documented potential noise and emissions impacts of the DEN concourse expansion project to support the NEPA EA process. Chris used the AEDT model to calculate potential impacts of the project on aviation airborne and ground emissions, including emissions from aircraft startup, taxi, auxiliary power unit, and ground support equipment activity. Chris also led the construction emissions analysis, using the ACEIT. The FAA produced a FONSI determination, allowing construction to proceed.

**SBIIA, Eastgate Air Cargo Facility, San Bernardino County, CA.** *AEDT Subject Matter Expert and Air Quality Analyst.* The SBIIA Authority is proposing to develop the Eastgate Air Cargo Facility, a package sorting and distribution center with an air cargo hub that would satisfy an unmet need for large-scale air cargo facilities at the Airport. Approval and implementation of the proposed project requires one or more actions by the FAA, requiring environmental analysis, coordination, and documentation conforming to the provisions of NEPA and the federal Clean Air Act. ESA is assisting the SBIIA and the FAA with preparation of an EA for the project's NEPA compliance as well as an air quality analysis to support a finding that the proposed project conforms to the air quality management plan established in the State Implementation Plan. Chris is providing subject matter expertise on AEDT functionality and is leading the aircraft emissions analysis. This includes using AEDT to generate sources and emission rates for emissions dispersion analysis in support of Clean Air Act compliance activities.

**PAE, New Air Service, Everett, WA.** *AEDT Subject Matter Expert and Air Quality Analyst.* ESA led the production of an Environmental Assessment for introduction of new air service at PAE. This included producing NEPA documentation as well as analyzing potential noise and emissions impacts of new commercial aircraft operations. Chris used the AEDT 2d model to calculate potential impacts of the project on aviation airborne and ground emissions, including emissions from aircraft startup, taxi, auxiliary power unit, and ground support equipment activity. The FAA produced a FONSI determination for the project, allowing new air service to begin.

**SEA, Historical Air Emissions, Seattle, WA.** *Air Quality Analyst.* ESA was tasked by the Port of Seattle's outside legal counsel, Foster Pepper PLLC, to develop several historical sets of air emissions data for SEA aircraft operations using the AEDT version 2c Service Pack 2. Several historical SEA INM Study Files were converted for use in the AEDT. Chris used the AEDT results to prepare data tables depicting SEA's air emissions over time.

## Susan Shaw

### Program Manager/Senior Scientist

Susan is the Program Manager for ESA's Biological Resource Program in Orlando, FL. She has over 20 years of ecological experience in a broad range of local, state, and federal environmental issues ranging from ERP; NEPA assistance and compliance; listed species monitoring, surveys, permitting and relocations; wetland delineations and Uniform Mitigation Assessment Method (UMAM) assessments; impact / mitigation assessments; and land management measures such as noxious vegetation management and wetland / watershed enhancement and creation. Susan has served as lead biologist for several airport projects providing BAs, EAs and CatEx. In addition, she has assisted with permitting runway and taxiway extensions, infield improvement projects, and aircraft MRO / cargo facilities, throughout the Country.

#### Relevant Experience

**MCO – Airport Improvement Program (AIP) and Passenger Facility Charge (PFC) Program Application NEPA Reviews, Orange County, FL.** *Lead Environmental Scientist.* Susan conducted environmental assessments on seven (7) AIP and PFC funded grant projects at MCO. Her biological assessments were utilized for the preparation of the 7 miscellaneous CatExs.

**FIN Runway Safety Area Improvements (Runway 6-24) and Runway Relocation (11-29) NEPA & Permitting, Flagler County, FL.** Environmental Scientist. Susan provided biological reviews, wetland delineations and listed species surveys in support of the ERP for the Runway 11-29 Relocation Project. The Project included survey, permitting and excavation of over 220 gopher tortoise burrows that existed within the infield of this highly active airport. Tower coordination and airport security badging was required in order to appropriately communicate with airport Operations personnel to facilitate the daily movement of multiple trackhoes, staff and transporting vehicles across active Runways and Taxiways.

**PIE Redevelopment of the AIRCO Parcel and Associated Infrastructure, Pinellas County, FL.** *Lead Environmental Scientist.* Susan prepared the AE and Environmental Consequences Sections of the EA. The project includes the redevelopment of the AIRCO parcel, a 131 acre abandoned golf course that is owned by PIE. Redevelopment of this parcel focuses on aviation and compatible non-aviation uses. As part of the NEPA process, informal consultation with United States Fish and Wildlife Service was sought for potential wood stork and Eastern indigo snake project impacts.



#### EDUCATION

B.S. Limnology, University of Central Florida

#### 20 YEARS OF EXPERIENCE

#### CERTIFICATIONS

Authorized Gopher Tortoise Agent (Surveys, Excavation, Marking, Transport and Release of Captured, and Backhoe Excavation Supervision, Permit # GTA-09-00219)

SWFWMD (WAP) certified

Wildland Firefighter Training (Standards for Survival, S-130 and S-190)

Qualified Stormwater Management Inspector, #3249

National Association of Underwater Instructors (NAUI)- Certified Scuba Diver

#### PROFESSIONAL AFFILIATIONS

Florida Lakes Management Society (FLMS)

Society of Wetland Scientist (SWS)

Central Florida Association of Environmental Professionals (CFAEP)

## Susan Shaw *Resume Continued*

**FRP Environmental Constraints Report. St Lucie County, FL.** *Lead Environmental Scientist.* Susan provided an ecological review and analysis of a 500-acre site located north of FPR, in order to identify constraints that would hinder the development of the property. The analysis included documenting existing environmental conditions, wetland delineations and assessments for mitigation purposes, and listed species (gopher tortoise, red cockaded woodpecker, and crested caracara). Also, included within the analysis were preliminary archaeological and cultural resource reviews, floodzone evaluations, and Phase I contamination investigations.

**Airfield Tower and Line of Sight.** *Environmental Scientist.* Susan assisted with performing wetland delineations, and listed species surveys, permitting and relocation services, for construction of the new airfield tower and line of sight project at LAL. Susan was responsible for obtaining the appropriate species permits from the agencies for the Project clearing activities. Within the project limits a total of 125 gopher tortoise burrows were safely excavated and all tortoises and associated commensal species were relocated to a long-term conservation bank.

**Infield Taxiway Improvements.** *Lead Environmental Scientist.* Susan prepared a CatEx for the Infield Taxiway Improvement project that included the removal of Taxiway G and Taxiway L; construction of a new Taxiway G on a new alignment; rehabilitation and overlay of Taxiway A west of Runway 5-23 and connectors A1, A4, and A5; construction of three high-speed exits between Taxiway A and Runway 9-27; and extension of Taxiway D.

**Aircraft MRO Hangars and Air Cargo Facility.** *Lead Environmental Scientist.* Susan provided biological reviews, surveys and assessments for the AE and the Environmental Consequences Sections of the EA. She provided informal consultation with FWS for potential wood stork, sand skink, and indigo snake project impacts. Ecological assessments were also utilized for the ERP that was prepared for the project. These assessments included habitat impacts, detailed wetland delineations, wetland evaluations, and mitigation evaluations.

**Runway 27 Protection Zone Clearing Activities.** *Environmental Scientist.* Susan provided NEPA assistance (long form CatEx), wetland permitting and contractor oversight, and maintenance / compliance support for clearing activities within a 15 acre, forested parcel located within the Runway Protection Zone (RPZ) for Runway 9-27. The project also included contractor oversight due to the use of aquatic mats, rutting/disturbance of the existing wetland soils, which was allowed by permit.

**X23 Extension of Runway 1-19 and Associated Improvements, Lake County, FL.** *Lead Environmental Scientist.* Susan provided biological reviews, surveys and assessments for the AE and the Environmental Consequences Sections of the EA. The project does not impact jurisdictional wetlands, however, habitat for: the FL scrub jay, sand skink, blue-tailed mole skink, Eastern indigo snake, and gopher tortoises was identified. Biological surveys were performed for scrub jay utilization and gopher tortoise burrow densities. Due to the amount of federally listed species that could be impacted by the project a Biological Opinion was prepared and submitted to the FAA as part of the EA package.

**ZPH Extension of Runway 1-19 and Associated Improvements, Pasco County, FL.** *Lead Environmental Scientist.* Susan is assisting with preparing the AE and the Environmental Consequences Sections of the EA. Although jurisdictional wetlands are not impacted, wood stork foraging habitat and indigo snake habitat are anticipated to be impacted as a result of the project and mitigation (both offsite mitigation and Standard Protection Measures) have been addressed within the EA for these species.

**Tampa Executive Airport (VDF) Land Management, Hillsborough County, FL.** *Lead Environmental Scientist.* Susan provided environmental support and land management services for targeting and treating nuisance and exotic vegetative species within various ponds and ditch features located throughout the airfield. Herbicide applications and reporting were conducted on a monthly basis. Environmental support also included assisting VDF staff with permitting and inclusion of triploid grass carp.

## Susumu Shirayama

### Technical Analyst

Susumu has worked exclusively on noise and vibration assessments for NEPA and CEQA projects for federal, state, and local governments, and the private sector. His activities have included field surveys, impact assessments using computer based noise models (TNM, INM, AEDT, NOISEMAP, RNM, CadnaA, and SoundPLAN), and technical report preparation. Susumu has prepared noise analyses and conducted noise monitoring for 14 CFR Part 150 studies, concerts, athletic stadiums, general construction activities, residential developments, FHWA Noise Technical Reports, FERC RR9 reports as well as FTA/FRA noise and vibration assessments.

### Relevant Experience

**FLL 14 CFR Part 150 Noise and Land Use Compatibility Study, Fort Lauderdale, FL. *Noise Analyst.*** Susumu is assisting with preparation of the 14 CFR Part 150 Noise and Land Use Compatibility Study for FLL. He is analyzing aircraft operations data, including processing radar tracks in order to develop flight tracks, stage lengths, and time of day split. AEDT 2d is being used for the noise contour development.

**SMF, Sacramento, CA. *Noise Analyst.*** The probability of nighttime awakenings and classroom disturbance based on the methodology described in American National Standards Institute and Acoustical Society of America Rationale for Withdrawing ANSI/ASA S12.9-2008/Part 6, Method of Estimation of Awakenings Associated with Outdoor Noise Events Heard in Homes were assessed by using AEDT 2d. This task was a part of Grandpark Specific Plan EIR.

**MDAD, Miami, FL. *Noise Analyst.*** ESA updated the 2017 noise contour for MIA, TMB, and OPF using aircraft activity information from the calendar year 2017. The data used to develop the DNL contours for each airport were derived from the MIA Airport Noise and Operations Management System (ANOMS) provided by the Miami-Dade Aviation Department (MDAD), the FAA's Air Traffic Activity Data System (ATADS), as well as communications with MDAD personnel. The MIA ANOMS data included specific detailed information about the operation of the airport that was helpful in developing the 2017 DNL contours, which were prepared using AEDT 2d. Susumu developed the noise contours and prepared the technical report.

**PIE, Clearwater, FL. *Noise Analyst.*** Susumu assisted with the preparation of the EA for the redevelopment of the Airco Parcel for Aviation and Non-Aviation Uses and Master Plan Update at PIE. He has assisted with the development of the 2017 existing and 2021/2026 proposed project noise contours for EA and 2023/2028/2038 future condition noise contours for the Master Plan Update. AEDT 2d was used to develop noise contours.



#### EDUCATION

B.S., Aerospace Studies, Embry-Riddle Aeronautical University

#### 19 YEARS OF EXPERIENCE

#### CERTIFICATION

Mine Safety and Health Administration Part 46 New Miner Training

#### PROFESSIONAL AFFILIATION

Institute of Noise Control Engineering



## Susumu Shirayama *Resume Continued*

**MIA, 2015 Noise Contour Update, Miami, FL.** *Noise Analyst.* ESA updated the 2015 noise contour for MIA using aircraft activity information from the calendar year 2015. The data used to develop the DNL contours were derived from the MIA ANOMS provided by the MDAD, the FAA's ATADS, as well as communications with MDAD personnel. The MIA ANOMS data included specific detailed information about the operation of the airport that was helpful in developing the 2015 DNL contours, which were prepared using AEDT 2b Service Pack 3. Susumu developed the noise contours and prepared the technical report.

**The Ohio State University Airport, Columbus, OH.** *Project Manager.* ESA developed the future year (2037) noise contour for the Ohio State University Airport (OSU) as a part of Airport Master Plan Update, using aircraft activity information provided by Woolpert. Susumu developed the noise contours using AEDT 2d and prepared the technical report.

**Pensacola International Airport, MRO EA, Pensacola, FL.** *Noise Analyst.* The EA was prepared for the development and operation of an aircraft MRO facility at the airport. The proposed MRO will accommodate large commercial aircraft and would have an additional 688 operations by 2023. Susumu developed the noise contours and prepared the technical report.

**JFK 14 CFR Part 150 Noise and Land Use Compatibility Study, New York, NY.** *Noise Analyst.* Susumu is currently assisting with the preparation of the 14 CFR Part 150 Noise and Land Use Compatibility Study for JFK. He has assisted with the development of the 2016 and 2021 JFK NEMs. During the noise contour development, over 400,000 aircraft operations data including radar tracks were processed in order to develop flight tracks, stage lengths, time of day split, and user-defined arrival/departure flight profiles. Susumu is currently supporting the development of the JFK Noise Compatibility Program.

**PAE, Everett, WA.** *Noise Analyst.* Susumu assisted with the preparation of the EA for the additional air career operations at PAE. He has assisted with the development of the 2017 existing and 2019/2024 proposed project noise contours. AEDT 2d was used to develop noise contours.

**SEA, Seattle, WA.** *Noise Analyst.* Susumu is currently assisting a grid point analysis for the concerned property near the SEA. AEDT 2d was used to produce DNL values at concerned property based on the most recent 12-month of operational data.

**SBIAA, Eastgate Air Cargo Facility, San Bernardino County, CA.** *Noise Analyst.* The SBIAA is proposing to develop the Eastgate Air Cargo Facility, a package sorting and distribution center with an air cargo hub that would satisfy an unmet need for large-scale air cargo facilities at the Airport. Susumu assisted with aircraft noise modeling using AEDT 2d as well as off-site traffic noise assessment using FHWA's TNM Version 2.5. Susumu prepared a technical report documenting the noise analysis.

**SEA, Historical Noise Contour Development, Seattle, WA.** *Noise Analyst.* ESA was tasked by the Port of Seattle's outside legal counsel, Foster Pepper PLLC, to develop several historical DNL contours using the current version of the FAA-approved AEDT 2c Service Pack 2. Susumu converted several historical SEA INM Study Files for use in the AEDT. Adjustments were made between the cases to ensure that an apples-to-apples comparison could be made across the modeling years. Susumu also used the AEDT to develop DNL values at 16 specific grid locations for a property of interest. His results were used to develop graphics depicting DNL difference contours for the years of interest.

## Douglas Skurski, MS, PWS

### Southeast Biological Resources Director

Doug has more than 20 years of experience in wetland assessments, federal, state, and local permitting, protected species studies, GIS mapping and analyses, NEPA, habitat evaluation, and environmental impact mitigation. He is knowledgeable in developing effective resolutions to conflicts between natural resources and project development, and has a thorough understanding of FL's ecology.



#### Relevant Experience

**PIE AIRCO Parcel Re-Development EA, Clearwater, FL.** *Senior Scientist.* Doug led protected species evaluation and informal coordination with USFWS, in conjunction with the preparation of NEPA documentation for the redevelopment of the AIRCO parcel, an old golf course property, for future commercial airline business. Coordination for effects to eastern indigo snake and wood stork resulted in NLAA determination.

**X23, Runway 1/19 Extension, Umatilla, FL.** *Senior Scientist.* Doug prepared a BA and initiated informal coordination with USFWS, in conjunction with the EA NEPA documentation for the extension of Runway 1/19. Coordination for effects to sand skink, FL scrub-jay, eastern indigo snake, and wood stork resulted in NLAA determination.

**SRQ, Master Drainage Plan, Sarasota, FL.** *Senior Scientist.* Doug was responsible for EA and SWFWMD/USACE permitting associated with master drainage improvements to reduce flooding, reduce wildlife hazard, and increase commercial property within the Airport.

**PAE EA, Everett, WA.** *Senior Scientist.* Doug provided QC review for wetland and wildlife sections of the EA to evaluate the initiation of commercial service by Alaska Airlines, Horizon Air, SkyWest Airlines, Southwest Airlines, and United Airlines into PAE.

**Northridge Meadows, Morrison Homes, Seminole County, FL.** *Environmental Project Manager.* Doug prepared conceptual ERP and developed mitigation plan for multi-family townhouse/commercial parcel mixed development. He established a jurisdictional wetland line and performed listed species surveys and agency coordination. Doug coordinated with FFWCC for black bear and sand hill crane habitat impacts. He performed subsequent construction phase permitting with SJRWMD and ACOE for residential and commercial phases of development. Mitigation included preservation of wildlife corridor plus mitigation banking.

**Orlando Airport Park, Orlando, FL.** *Environmental Manager.* Doug oversaw 100% gopher tortoise surveys prior to mechanical excavation and relocation of tortoises to off-site conservation lands, to facilitate development of the property as part of the Orlando Airport Park.

#### EDUCATION

M.S., Biology, University of Central Florida

B.S., Zoology, Washington State University

#### 20 YEARS OF EXPERIENCE

#### CERTIFICATIONS

Professional Wetland Scientist (PWS) No. 1719

Florida Fish and Wildlife Commission Authorized Gopher Tortoise Agent; GTA-09-0237F

Qualified Stormwater Management Inspector (FDEP), No. 29971

#### TRAINING

UMAM Technical Training, Southwest FL Water Management District; 2010

Wetland Plant Identification, Institute for Wetland and Environmental Education and Research, Inc., 2006

Uniform Mitigation Assessment Method, Field Workshop, Central FL Association of Environmental Professionals, 2004

## Douglas Skurski *Resume Continued*

**SR-5/US-1 Safety Improvements, FDOT District 4, Palm Beach County, FL.** *Environmental Manager.* Doug oversaw the resurfacing, restoration, and rehabilitation of a section of SR 500 (US 1) from north of George Bush Blvd. to north of (Canal) Murano Bay Drive. Improvements included milling and resurfacing, ADA upgrades and other pedestrian safety improvements. He obtained a ROW occupancy permit from SFWMD for construction of a barrier wall within the C-16 canal ROW.

**Center Fixed Bridge and South Fixed Bridge Replacements, Gasparilla Island Bridge Authority, Charlotte County, FL.** *Environmental Scientist.* Doug oversaw all environmental field and permit document production tasks for the fixed bridge replacement projects over Boca Grande Causeway. He performed emergency coordination with USFWS/FFWCC to implement a Bald Eagle monitoring plan without delaying project schedule, as an eagle pair had moved into project area during construction. Tasks included wetland delineations, wildlife and listed species survey, seagrass survey and mapping, mitigation plan, state/federal agency coordination and permitting through SWFWMD, FDEP, USACE, National Marine Fisheries Service (NMFS), USFWS and US Coast Guard (USCG).

**SR 415 Widening and Bridge Replacement, FDOT District Five, Volusia County, FL.** *Environmental Scientist.* Doug acted as Environmental Scientist for a roadway widening and bridge replacement project in a rural area. He prepared permit application packages and GIS exhibits, and conducted agency coordination for United States Coast Guard, SJRWMD, and USACE permitting efforts associated with the replacement and widening of two bridges across the St. Johns River, and two miles of roadway widening from two-lanes to six-lanes from SR 46 to Reed Ellis Road.

**SR 821(HEFT) Auxiliary Lanes from NW 74th to NW 106th, FTE, Miami-Dade County, FL.** *Environmental Project Manager.* Doug was responsible for managing staff in preparation of Environmental Permits from SFWMD, USACE, and Miami-Dade County DERM. He conducted wetland delineation, UMAM analysis, wood stork biomass foraging analysis, and facilitated release mitigation for Conservation Easement for previous onsite wetland mitigation in support of auxiliary lanes design.

**Loxahatchee Road Widening from Arthur R. Marshall Loxahatchee National Wildlife Refuge to SR 7/US 441, FDOT District 4, Palm Beach County, FL.** *Senior Scientist.* Doug was responsible for preparation of Environmental Permits from SFWMD, USACE, and Pine Tree Water Control District. He conducted wetland delineation, UMAM analysis, wood stork biomass foraging analysis, and coordinated mitigation purchase in support of safety improvements such as roundabouts, bike lanes, sidewalks, and drainage improvements.

**Disney's Saratoga Springs at Downtown Disney, Walt Disney Imagineering, Orange County, FL.** *Environmental Scientist.* Doug performed a Threatened and Endangered Species survey, coordination with FFWCC and USFWS, gopher tortoise survey and offsite tortoise relocation for the demolition of existing villas, re-design of resort community, and construction of 10 new resort villas. GPS coordinates gopher tortoises were imported into GIS and incorporated into design and permitting documents.

**SR 528 (Beachline) West Expressway Widening, FTE, Orange County, FL.** *Environmental Project Manager.* Doug managed staff and conducted wetland delineation, USFWS and FFWCC coordination, Threatened and Endangered species survey, SFWMD coordination and environmental permitting for the widening of SR 528 from Interstate 4 to McCoy Road.

**Palisades Phase III Subdivision, Canam Palisades, Lake County, FL.** *Environmental Project Manager.* Doug established and permitted formal wetland delineation with SJRWMD, performed a listed species survey, wetland analysis for elimination and reduction of impacts, and prepared required permitting with SJRWMD, ACOE, and Lake County for the development of the third phase of a residential subdivision and golf course.

## Craig Stout, PWS

### Senior Scientist

Craig Stout is a professional wetland scientist with more than 20 years of experience in the environmental science field as a consultant to industry and government. His multifaceted background includes jurisdictional wetland delineations, UMAM assessments, formal wetland verifications, environmental resource permitting, agency coordination, permit compliance, listed species surveys and permitting, vegetative identification and monitoring, GIS, and land survey. He is trained as a wildland firefighter and certified commercial, natural areas, and aquatic herbicide applicator. As the lead field biologist on many projects, his responsibilities have included extensive data collection and coordinating field surveys for threatened and endangered species, such as the FL scrub jay, gopher tortoise, sand skink, eastern indigo snake, and various protected plants. Additional activities include the assessment of nuisance and exotic vegetative species for their environmental impacts, implementing control procedures, and directing the establishment of vegetative and aquatic monitoring programs.

### Relevant Experience

**FIN Runway 11/29 Extension and Relocation Project, Flagler County, FL. *Lead Biologist.*** Craig was responsible for all aspects for both state and federal permitting for the project. Responsibilities included wetland delineation, wetland assessment utilizing the UMAM, report preparation, ACOE jurisdictional determination, listed species surveys, ACOE Wetland Determination Data Form preparation, mitigation alternatives analysis, ERP preparation, and GIS mapping. In addition, he acted as a liaison for the airport during correspondence with SJRWMD, ACOE, and USFWS. Through this correspondence, the project was permitted with no RAI from either the state or federal agencies.

**X23 Extension of Runway 1-19 and Associated Improvements, Lake County, FL. *Lead Field Scientist.*** Craig provided biological reviews, surveys and assessments for the AE and the Environmental Consequences Sections of the EA. As part of the field review, wetland delineations and preliminary listed species surveys were conducted. The project does not impact jurisdictional wetlands, however, habitat for: The FL scrub jay, sand skink, blue-tailed mole skink, Eastern indigo snake, and gopher tortoises was identified. Craig conducted an approved FL scrub jay survey of the project area and identified gopher tortoise densities in the vicinity of the project. Due to the amount of federally listed species that could be impacted by the project a Biological Opinion was prepared and submitted to the FAA as part of the EA package. As part of the Biological Opinion, he assisted by providing GIS support for exhibits that were included with the document.



#### EDUCATION

B.S., Biological Sciences,  
University of Central Florida

A.S., Environmental Technology,  
Valencia College

#### 20+ YEARS OF EXPERIENCE

#### CERTIFICATIONS

Professional Wetland Scientist,  
#2393, 2013

Embry Riddle Aeronautical  
University, Qualified Wildlife  
Biologist, 2018

FAA Qualified Wildlife Biologist

General Standards (Core):  
Commercial pesticide  
application, Aquatic herbicide  
application, 2000

Natural Areas herbicide  
application, 2013

Wildland Firefighting Training,  
1998: Fire Behavior (S-190),  
Hand Tools (S-130), Standards of  
Survival (PMS-416)

Florida Boating Safety  
Certification, 2003

Padi Open Water Dive  
Certification, 2008

Quality Vegetative Management  
(QVM) Certified Advisor, 2007

Authorized Gopher Tortoise  
Agent, 2009

## Craig Stout *Resume Continued*

### **ZPH Extension of Runway 1-19 and Associated Improvements, Pasco County, FL** *Lead Field Scientist.*

Craig conducted field surveys of the project area that consisted of locating any surface water features and identifying any potential state or federally listed species habitat. He assisted with the AE and the Environmental Consequences Sections of the EA by providing GIS support for a number of exhibits that are to be submitted with the EA. Although jurisdictional wetlands are not impacted, wood stork foraging habitat and indigo snake habitat are anticipated to be impacted as a result of the project and mitigation (both offsite mitigation and Standard Protection Measures) have been addressed within the EA for these species.

### **LAL Aircraft MRO Hangars and Air Cargo Facility, Polk County, FL.** *Environmental Scientist.*

Craig provided biological reviews, surveys and assessments for the Affected Environment and the Environmental Consequences Sections of the EA. Provided GIS mapping support for the informal consultation with FWS and the EA. Craig was the lead scientist during the permitting phase of the project. He conducted wetland delineations and assessments, preliminary listed species surveys, GIS mapping, report writing, ERP preparation, agency correspondence, and prepared a mitigation plan to offset wetland impacts incurred as a result of the project. During the permitting phase, Craig coordinated with a number of agencies, including the SWFWMD, ACOE and the EPA, in order to secure the required permits and to get approval of an on-site mitigation plan.

### **Runway 27 Protection Zone Clearing Activities.**

*Environmental Scientist.* Craig provided NEPA assistance (long form CatEx), wetland permitting and contractor oversight, and maintenance / compliance support for clearing activities within a 15 acre, forested parcel located within the Runway Protection Zone (RPZ) for Runway 9-27. Craig was the lead scientist during the permitting phase of this project. His tasks included wetland delineation and assessments, preliminary listed species surveys, report writing, GIS mapping, ERP preparation and agency coordination. The project also included contractor oversight due to the use of aquatic mats, rutting/ disturbance of the existing wetland soils, which was allowed by permit.

### **LEE Extension of Runway 13-31, City of Leesburg, FL.**

*Lead Biologist.* Craig performed wetland delineations, UMAM and WRAP analysis, and led the wetland inventory reporting. He assisted in state and federal agency coordination, field inspections, ERP preparation and mitigation requirements. He was involved in the implementation of the on-site mitigation plan and was a field lead in ensuring that the mitigation site maintained compliance in accordance with the permit requirements.

### **FPR Runway 10L/28R Project, St. Lucie County, FL.**

*Field Biologist.* For the Runway 10L/28R construction and associated structures (taxiways and perimeter road) at FPR, Craig was responsible for jurisdictional wetland delineation, wetland assessment, UMAM and WRAP analysis, and assisted in federal and state agency coordination and mitigation alternatives. Additional duties included listed species surveys, gopher tortoise excavations, and on-site relocations.

### **FDOT District 2 General Engineering Contract, Duval and St. John's Counties, FL.** *On-Call Biologist.*

Craig determined the seasonal high and normal pool water elevations for a number of stormwater improvements projects within District 2. He was consulted to address any potential environmental constraints and ensure that the appropriate permits (if required) were secured prior to any construction activities. In addition, he conducted several NPDES inspections of the stormwater infrastructure within the district.

### **PIE Redevelopment of the AIRCO Parcel and Associated Infrastructure, Pinellas County, FL.** *Lead Field Scientist.*

Craig conducted field surveys of the proposed AIRCO parcel to determine the limits of surface waters and the potential utilization by state and/or federally listed species. The project includes the redevelopment of the AIRCO parcel, a 131 acre abandoned golf course that is owned by PIE. Redevelopment of this parcel focuses on aviation and compatible non-aviation uses. As part of the NEPA process, informal consultation with USFWS was sought for potential wood stork and Eastern indigo snake project impacts. Craig assisted by providing GIS support for the exhibits that were included in the informal consultation.

## Autumn Ward, MS, CM, ENV SP

### Senior Airport Planner

Autumn has 15 years of aviation consulting experience, with a strong background in environmental planning, airport facility planning, and aviation safety. Her project experience has included facilities ranging in size from small general aviation airports to major large-hub air carrier airports in the United States and abroad. She is experienced with the FAA and airport certification requirements and skilled in documenting and presenting the results of technical analyses in a manner that can be clearly understood by the public.

### Relevant Experience

**FLL Part 150 Study, Fort Lauderdale, FL.** *Deputy Project Manager.* ESA is preparing a 14 CFR Part 150 Study to address noise concerns. This Study evaluates aircraft noise compatibility of FLL, following the opening of a new south runway. Autumn is responsible for leading the noise modeling effort and documentation of the findings.

**PAE New Airline Service Supplemental Environmental Assessment, Everett, WA.** *Project Manager.* ESA prepared a Supplemental EA for Alaska and United Airlines, in order to initiate air carrier service at PAE. Primary concerns related to the increase in aircraft noise, traffic, and air quality emissions. Autumn was the Project Manager and led the EA analysis, NEPA documentation, public involvement, and response to comments.

**PANYNJ Part 150 Studies for JFK and LGA, New York City, NY.** *Senior Airport Planner.* ESA is preparing two 14 CFR Part 150 Studies to address the concerns of residents in the vicinity of JFK and LGA. These Studies evaluate the aircraft noise compatibility of JFK and LGA with their respective local communities. Autumn is responsible for leading the documentation effort as well as responding to public comments on the studies.

**SBIIA EA, Eastgate Air Cargo Facility, San Bernardino County, CA.** *Project Manager.* SBIAA is proposing to develop the Eastgate Air Cargo Facility, a package sorting and distribution center with an air cargo hub that would satisfy an unmet need for large-scale air cargo facilities at the Airport. ESA assisted SBIAA with preparation of an EA and an air quality analysis to support a finding that the proposed project conforms to the air quality management plan established in the state implementation plan. Autumn led preparation of the EA and coordinated with the SBIAA and FAA.

**Proposed MRO Facility Focused EA, Pensacola, FL.** *Senior Airport Planner.* An EA was prepared in support of a proposed MRO facility at PNS. Autumn assisted with preparation of the EA, as well as documenting the project-related impacts to several resource categories, including noise, Section 4(f) resources, and land use.



### EDUCATION

M.S., Aeronautics (specialization in Aviation/Aerospace Safety Systems), Embry Riddle Aeronautical University

B.S., Aviation Business Administration, Embry Riddle Aeronautical University

### 15 YEARS OF EXPERIENCE

### CERTIFICATIONS

Certified Member, American Association of Airport Executives, 2012

Envision™ Sustainability Professional and Verifier, 2013

### PROFESSIONAL AFFILIATIONS

Board Member, Tony Jannus Distinguished Aviation Society

Former Vice Chair, FL Airports Council, Noise Abatement and Community Affairs Committee

Vice President – Tampa Bay Chapter, WTS International

## Autumn Ward *Resume Continued*

**Brown Field Municipal Airport EA, San Diego, CA.** *Senior Airport Planner.* ESA prepared an EA for the Metropolitan AirPark development project at Brown Field Municipal Airport. Autumn was the Deputy Project Manager and assisted with the EA analysis and documentation of impacts, including managing the noise task and coordinating internal team efforts.

**ACRP 02-69 Integrating Airport Sustainability and the NEPA Process, Washington, DC.** *Senior Airport Planner.* ESA is a sub-consultant to VHB, and is assisting with the research and documentation of the environmental review process and strategies for integrating environmental considerations into airport planning, development, and operations. Autumn is responsible for leading ESA's role in this research effort, which focuses on ESA's experience in environmental and airport planning.

**Pie CatEx, St. Petersburg, FL.** *Project Manager.* ESA prepared a Categorical Exclusion (CatEx) for the Runway 18-36 rehabilitation at PIE. Autumn conducted the desktop analysis required for the CatEx, managed the development of noise contours, and prepared the materials for public distribution.

**East Airfield Development Area Environmental Assessment, Orlando, FL.** *Senior Airport Planner.* ESA prepared an EA for several projects at Orlando International Airport's East Airfield Development Area. Autumn assisted with the documentation as well as coordinated the public outreach effort, which included a public workshop and reviewing and preparing responses for hundreds of public comments.

**Chennault International Airport Master Plan Update, Lake Charles, LA.** *Project Manager.* ESA provided support for the noise impact analysis for this Master Plan Update. Autumn was the Project Manager for this assignment, and led ESA's effort to develop noise contours in the FAA's new noise modeling tool, AEDT. She also coordinated with the Client and other team members to obtain the necessary information to complete the noise impact modeling and analysis.

**MCO Noise Support, Orlando, FL.** *Project Manager.* ESA provided on-call noise support for both MCO and ORL. Autumn has provided technical expertise, and analyzed operations at both airports to identify a correlation between aircraft operational changes and the increased number of public complaints.

**MLB Part 150 Study, Melbourne, FL.** *Deputy Project Manager.* ESA conducted a noise and compatible land use study for MLB. Autumn was responsible for developing the combined Draft Noise Exposure Maps/Noise Compatibility Program report, and led the development of updated noise exposure maps and the public outreach effort detailing the recommended measures from the Study.

**Relevant Experience (Prior to Work at ESA)**  
**FAA Advisory Circular 150/5020-1, Airport Noise and Land Use Compatibility Planning Revision.** *Airport Planner.* As part of the FAA's revision of Advisory Circular 150/5020-1, Autumn researched current scientific studies on noise propagation, health effects of noise impacts and capabilities of available aviation noise prediction models. She assisted in drafting and editing the revised Advisory Circular, and coordinated with FAA headquarters and field staff on policy and scientific issues associated with the effect of noise impacts on local land use planning and zoning.

**F45, EIS, West Palm Beach, FL.** *Principal Analyst.* The thorough noise analysis aimed to evaluate potential noise consequences associated with two proposed project alternatives. She developed a unique protocol to determine how to address noise impacts related to potential for sleep disturbance, speech interference, and effect on children's learning. She performed the noise analysis, documented the results, and assisted with public forums to explain the results of the analysis. Autumn was also the primary author of an extensive project report to document assumptions, methodologies, and conclusions to the aforementioned topics.

## Jeff Winter

### Lead Field Scientist

Jeff Winter has a 25-year background in wetland ecology, water quality, biological monitoring, and jurisdictional wetland determinations. For the last 16 years he has been the lead field scientist for several large permit mandated monitoring programs resulting in the collection of millions of datapoints. His responsibilities have included monitoring systems of continuously deployed water quality and hydrologic sensors and recorders, as well as conducting water quality, vegetation, wildlife surveys, and benthic macroinvertebrate monitoring. Jeff is responsible for implementing FDEP approved Standard Operating Procedures (SOP), equipment maintenance and calibration, work scheduling, and all field activities. Prior to his employment with ESA, Jeff was a senior field scientist at Atkins North America for 16 years.



#### EDUCATION

B.S., Environmental Science,  
University of South Florida

B.A., Mass Communications,  
University of South Florida

#### 25 YEARS OF EXPERIENCE

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### Relevant Experience

#### **FIN Runway 11/29 Extension and Relocation Project, Flagler County, FL.**

*Environmental Scientist.* Jeff assisted in the completion of listed species surveys, gopher tortoise excavation and relocation in support of the runway extension and relocation project. This Project included survey, permitting and excavation of over 220 gopher tortoise burrows that existed within the infield of this highly active airport. Tower coordination and airport security badging was required in order to appropriately communicate with airport Operations personnel to facilitate the daily movement of multiple trackhoes, staff and transporting vehicles across active Runways and Taxiways. This project was completed on time and under budget though the utilization of experienced trackhoe operators and staff familiar with airport safety and operation procedures, specifically related to infield movements within the Air Operations Area (AOA). In addition, Sunshine locates are not provided within AOA's, therefore, experienced personnel were utilized to ensure that electrical components to the airport's navigation system were not damaged as a result of the excavation procedures.

#### **Tampa Bypass Canal/Alafia River Hydrobiological Monitoring Program, Tampa, FL.**

*Lead Field Scientist.* Jeff has been responsible for environmental monitoring including hydrologic (continuous recording water levels and flow measurements), water quality (Hydrolab casts and grab sample collection), and biological sample collection (benthic invertebrate and fish sampling). Trained in the use of a wide variety of field data collection instrumentation and sampling gear. This 16-year contract involves the development and implementation of a comprehensive Hydrobiological Monitoring Program (HBMP) required for the water use permits issued by SFWMMD for the Alafia River and the Tampa Bypass Canal water supply projects. HBMP elements include hydrology/ water quality, biota, and habitat/ vegetation, and are monitored through the collection of hydrologic, water quality, and benthic invertebrate samples. The monitoring program also includes statistical analyses of each project element, preparation of annual data reports and biannual interpretive reports, and overall financial management of the HBMP.



## Jeff Winter *Resume Continued*

**FPR EIS, Fort Pierce, FL. *Environmental Scientist.*** In support of the FPR 2011 Master Plan, ESA is completing an EIS for the 400-acre parcel, Airport North Foreign Trade Zone. The study provided an environmental analysis sufficient to make recommendations as to the constraints, feasibility and preliminary costs associated with the development of this area of the Airport. Jeff assisted in the completion of listed species surveys (CaraCara, scrub jay, red-cockaded woodpecker and gopher tortoise) and the delineations of existing wetlands in support of this project.

**Apollo Bay Monitoring Program/Tampa Bay Desalination Facility, Hillsborough County, FL. *Lead Field Scientist.*** Jeff has acted as lead field scientist for the 16-year water quality and biological monitoring project to measure the effect of desalination brine discharge on the Big Bend area of the Tampa Bay estuary. Jeff oversees all equipment maintenance and calibration, work scheduling, and field activities for this project. Throughout the project history, monitoring efforts have included water chemistry, hydrologic, and benthic sampling.

**Peace River/Manasota Regional Water Supply Authority, Hydrobiological Monitoring Program Continuous Recorders Program, Charlotte and DeSoto Counties, FL. *Lead Field Scientist.*** This ongoing, long-term monitoring program is designed to detect and describe changes in various physical, chemical, and biological characteristics of the tidal Charlotte Harbor estuary potentially resulting from potable freshwater withdrawals. Jeff has been responsible for water quality monitoring through the use of continuously deployed multiparameter sondes in the Peace River since project inception in 2006. Jeff oversees all equipment maintenance and calibration, work scheduling, and field activities for this project.

**Tampa Bay Water Reservoir Land Management. Hillsborough County, FL. *Environmental Scientist.*** Jeff performs monthly herbicide application for the elimination of identified nuisance species surrounding the Tampa Bay Water Reservoir and other land parcels. Access is obtained via an herbicide equipped all-terrain vehicles or by foot with a backpack sprayer. Mr. Winter is able to perform selective herbicide application based upon his plant identification knowledge resulting in limited to no beneficial species eradication.

**FX Bar Ranch – Conservation Easement Baseline Services, Frostproof, FL. *Environmental Scientist.*** ESA assisted Polk County in the development of a Baseline Conservation Easement Report for the 500-acre FX Bar Ranch Conservation Easement. Jeff performed an extensive field review documenting the property's physical and biological conditions and the conservation values protected by the easement. This effort consisted of photo documentation and GPS coordinates for stations and features of significance including measurements of all man-made structures and a general vegetation species list for each habitat type.

**Big Cypress Preserve Seismic Exploration (2017), South FL. *Environmental Scientist.*** Jeff assisted in field efforts to clear areas for environmental concerns, including FL panthers, red-cockaded woodpeckers, listed flora, and unique high quality habitats within Big Cypress National reserve. Areas were cleared by trained environmental scientists that were flown into the preserve via helicopter with an archeologist and a surveyor to clear paths using Vibroseis buggies that produced seismic waves. Additionally, Jeff was part of the team requested to clear areas for the placement of numerous seismic sensors in an effort to look for oil reserves within the Preserve.

**Sunshine Lake/Sunrise Waterway Monitoring Program. Charlotte County, FL. *Field Scientist.*** The Sunshine Lake/Sunrise Waterway system, located in Greater Port Charlotte, experienced extensive and persistent algal blooms. Due to the phosphorus-rich surface geology surrounding the watershed, there is a potential that the algal bloom may reoccur. A monitoring program which includes quantitative criteria designed to trigger various levels of management attention was recommended as part of the water quality management plan previously developed. Jeff assisted collection of water quality and benthic sampling efforts used to characterize the waterbody and watershed-derived inputs.

## Neal Wolfe, JD, SFP

### Associate Principal

Neal has more than 15 years of experience in airport asset and facilities management, airfield, air quality, noise, environmental, sustainability, resilience, and energy planning. He has extensive experience in air quality and noise modeling, developing sustainability management plans, and preparing state and federal environmental grant funding opportunities. He is also highly experienced in performing geometric glint and glare studies related to solar photovoltaic (PV) arrays, developing new and analyzing existing aircraft arrival and departure procedures, and solving environmentally-based scientific and legal problems. Neal's diverse experience with successfully negotiating a wide variety of airport-related technical, organizational, and relationship challenges makes him ideally suited to lead large and complex planning projects. Most recently, Neal served as the Program Manager for the Facilities, Asset Management, and Sustainability contract with the City of Atlanta, Department of Aviation (DOA).

Before his career in consulting, Neal was the director of a high-containment microbiological research facility and also served as a team leader in the U.S. Army Rangers, where he participated in multiple overseas deployments with distinction.

### Relevant Experience

#### **Albuquerque International Support Sustainability Management System, NM.**

*Project Manager.* Neal led the development of the Sustainability Management System (SMS) for the Sunport, which focused on establishing airport-wide baselines and developing performance metrics and long-term environmental and economic goals. The Sunport's SMS, which won the ACI-NA Award for Environmental Management, was strongly aligned with Albuquerque's goal of becoming the "greenest city" in America. Tangible outcomes of the SMS included the installation of three phases of solar PV arrays and electric ground support equipment (eGSE) charging stations, which were funded through a combination of federal environmental grant programs.

**ATL Clean Energy Plan, GA.** *Project Manager.* Neal developed the ATL Clean Energy Plan (ACEP), which focuses on reduction emissions and fuel consumption, and improving operational resilience at the airport. The airport-wide solar master plan was an integral component of the ACEP, as was the microgrid feasibility study, which sought to strike a balance between blue/black sky resilience and favorable economic opportunities. Developing the ACEP involved complex negotiations with a variety of stakeholders, including Georgia Power, the Atlanta Airlines Terminal Company, and Delta Air Lines.



#### **EDUCATION**

J.D., Salmon P. Chase College of Law, University of Cincinnati

#### **15+ YEARS OF EXPERIENCE**

#### **CERTIFICATION**

Sustainability Facility Professional (SFP)

#### **PROFESSIONAL AFFILIATIONS**

Airports Council International – North America (ACI-NA)

American Association of Airport Executives (AAAE)

International Facility Management Association (IFMA)

Airport Maximo User's Group (AMUG)

U.S. Green Building Council (USGBC)

## Neal Wolfe *Resume Continued*

**MDAD Solar PV Site Feasibility Study and Glare Analysis, PR.** *Project Manager.* Neal identified potential sites for development by assessing feasibility with respect to potential glare impacts, costs, energy production, and airport design criteria. The associated solar glare study was the first in the nation to be approved by the FAA using updated regulatory guidance. Neal also reviewed electricity bills to identify suitable on-airport load centers for on-site consumption and calculated consumption and demand charge savings. The successful outcome of this planning study was especially critical given the high cost of electricity on the island of Puerto Rico.

**ATL Resilient Asset Management Planning, GA.** *Program Manager.* Neal assisted the DOA in developing a resilience-based asset management system, which focuses on enhancing the continuity of airport operations by minimizing the chronic stressors to assets and infrastructure that frequently lead to major, disruptive shock events. Neal's team helped the DOA strategically prepare for a wide variety of resilience-based challenges, including: developing a facility replacement and renewal plan; identifying energy conservation measures for existing buildings; assessing the feasibility of alternative and renewable energy technologies; implementing a fleet-wide vehicle modernization plan; and solving challenges associated with sanitary and stormwater management.

**Federal Environmental Grant Planning for Various Airports.** *Subject Matter Expert.* Neal has served as the Project Manager for more than three dozen emission reduction projects that received nearly \$100 million in funding assistance through the FAA's Voluntary Airport Low Emission, Zero Emission Airport Vehicle, and Energy Efficiency of Airport Power Sources Programs and the US Environmental Protection Agency's "Clean Diesel" Program. These environmental grants have enabled airport sponsors to purchase gate electrification equipment, rechargers for eGSE, alternatively-fueled vehicles, and solar PV arrays. Projects include airports that serve Albuquerque, Atlanta, Birmingham, Houston, Los Angeles, Memphis, New York, Philadelphia, and San Francisco.

**ATL Campus-wide Energy Conservation Initiatives, GA.** *Program Manager.* Neal led a multi-discipline effort to reduce energy consumption at the airport, which included performing American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) Level II energy audits for more than two dozen facilities. The audits focused on the evaluation of current facility energy usage, identification of energy conservation measures that reduce annual operating and maintenance costs, and developing a strategy that reduces total annual costs and demonstrates favorable returns on investment. The effort also included an analysis of DOA electrical accounts to identify ones that could be recategorized or consolidated, using key indicators such as peak usage occurring outside normal grid peak periods and a high ratio of billing/metering charges to electricity charges.

**ATL Campus-Wide Waste Handling Initiatives, GA.** *Project Manager.* As part of the DOA's overall recycling efforts at the airport, Neal studied the link between waste and FOD on the ramps by examining the behaviors of custodial staff and ramp/airline personnel. He found that near universal unfamiliarity with best practices was the root cause of a critical safety issue. Neal also characterized the types and volumes of wastes generated at the airport cargo areas and identified possible revenue recovery models, which will also help promote recycling and operational safety.

**Houston Airport System Comprehensive Airport Emissions Inventory, TX.** *Project Manager.* Neal led an emissions inventory study for George Bush, Hobby, and Ellington airports, which focused on measuring criteria air pollutant emissions associated with aircraft engines, auxiliary power units, GSE, stationary sources, roadways, parking facilities, and construction activities. The effort required challenging coordination and negotiations with tenant airlines and the Texas Commission on Environmental Quality, and the results of the study were included in the Texas State Implementation Plan.

## Education

Bachelor of Science – Aviation Management and Planning, Southern Illinois University, Carbondale

Master of Public Administration in Aviation – Aviation Planning and Geographic Information Systems Concentration – Southern Illinois University, Carbondale

## Professional Affiliations

American Association of Airport Executives

## Years of Experience

Ricondo: 7

Other Firms: 4

## Office Location

Orlando, Florida

# Shane P. Ingolia

## Managing Consultant



Since joining Ricondo & Associates, Inc. (Ricondo) in 2011, Mr. Ingolia has assisted with multiple airport master plan updates, in which his tasks have included analyzing airfield, roadway, curb front, parking, and terminal facility capacities; programming and developing operational facility design layouts for short-, intermediate-, and long-term growth; coordinating airport tenant and public outreach programs; and participating in presentations with various internal and external airport stakeholders.

Mr. Ingolia has managed or been a technical lead for master plan updates for Fort Lauderdale Executive, Fort Lauderdale-Hollywood International, Key West International, Miami International, and Orlando International Airports. As a supplemental study to the Orlando Master Plan Update, Mr. Ingolia also identified possible alternatives for the elimination and/or mitigation of the existing and proposed noncompatible land uses within the runway protection zones (RPZs). This study documented land uses within the RPZs and included a comprehensive review of the airfield safety areas and runway critical surfaces associated with each runway.

Since 2016, Mr. Ingolia has served as the on-site lead for on-call planning services for the Broward County Aviation Department. He has assisted the Department with numerous on-call assignments, including the development of an Exhibit A Property Map, the siting and relocation of NAVAIDs, an Air Traffic Control Tower siting study, the revising of the tenant improvement and business process procedures manual, and a comprehensive land use and development study for the Westside Development area. He has also managed the development of an interim gate expansion project, which included a site selection study for a five-gate facility, simulated bus route operations to evaluate travel times for passenger transport, the development of planning-level order of magnitude cost estimates, and facility renderings of the preferred solution.

Mr. Ingolia has also served as a task leader for various on-call planning projects for Dallas Fort Worth International Airport, including: development of an Existing Facilities Replacement and Repurposing Plan for Long-Range Terminal Development; land use and development planning for Bear Creek and Walnut Hill; support with the 10-year Capital Improvement Plan; and a comprehensive airfield geometry assessment.

Prior to joining Ricondo, Mr. Ingolia worked for the Southern Illinois Airport Authority, where he participated in the Federal Aviation Administration's First Safety Management Systems (SMS) Pilot Study. This study was completed in 2007, and the follow-on Implementation Study was completed in 2011.

### Education

Bachelor of Science – Civil Engineering, Florida State University

Master of Business Administration, Florida International University

Executive Education – Project Management Certificate Program, Loyola University

### Certifications and Licenses

Professional Engineer, Florida

### Professional Affiliations

American Association of Airport Executives

Senior Faculty – Graduate Business Administration and Project Management Degree Programs, DeVry University

### Years of Experience

Ricondo: 25

Other Firms: 2

### Office Location

Miami, Florida

## Pete Ricondo, PE

Senior Vice President



Mr. Ricondo has more than 26 years of comprehensive aviation-related experience in airport planning, programming, and conceptual design. His diverse experience has been gained on various projects at several large- and medium-hub commercial service airports and general aviation airports. He is a Florida-licensed, professional civil engineer and has served as Officer-in-Charge or Project Manager on numerous airport master planning studies and on-call airport planning consulting services contracts.

He has served as an on-call strategic planning advisor to Dallas Fort Worth, Miami, and Orlando International Airports, as well as the Boca Raton Airport. In 2009, he authored, as the Principal Investigator, a Guidebook for Strategic Planning in the Airport Industry, funded through the Airport Cooperative Research Program administered by the Transportation Research Board.

Mr. Ricondo possesses a diverse background in the formulation of efficient and highly functional terminal building planning concepts, having served as a lead planner for the terminal redevelopment program at Jacksonville International Airport; the new terminal complex completed in 2005 at Southwest Florida International Airport; the completion of a project definition document for the redevelopment of the Central Terminal Facilities at Miami International Airport; and numerous terminal planning studies completed under the Master Plan Update for Tampa International Airport.

He is also relied upon for his Capital Improvement Program planning and funding expertise, assisting airports prioritize their projects while leveraging their ability to maximize federal AIP, state and Passenger Facility Charge (PFC) funding based on his knowledge of FAA and FDOT funding eligibility and extensive experience preparing grant application and PFC application packages.

Mr. Ricondo's airport master planning experience is also quite extensive. He has served as Project Manager for several master planning assignments for various commercial service airports, including: Master Plan Updates for Jacksonville International Airport (completed in 2011); Miami International Airport (completed in 2015); and Orlando International Airport (completed in 2014); Sarasota-Bradenton International Airport (completed in 2009); and Tampa International Airport (completed in 2006). He has also served as project manager for general aviation airport master plans for the Boca Raton Airport (one completed in 2004 and an update completed in 2011); Homestead General Aviation Airport (completed in 2015); Miami Executive Airport (completed in 2015), Miam-Opa Locka Executive Airport (completed in 2015), and Vero Beach Regional Airport (completed in 2016). He is currently serving as the Officer-in-Charge, leading Ricondo & Associates, Inc.'s quality control for all study deliverables and actively involved in providing overall direction on the technical analyses associated with the Master Plan Updates for Fort Lauderdale Executive, Fort Lauderdale-Hollywood International, Key West International, and North Perry Airports.

## Education

Bachelor of Arts, Program of Liberal Studies, University of Notre Dame

## Professional Affiliations

Project Management Institute

## Speaking Engagements

"NextGen and NEPA: Optimization of the Airspace and Procedures in the Metroplex (OAPM)—NEPA Case Study: Washington D.C., Metroplex," UC Davis Noise and Air Quality Symposium, 2014

## Publications

"An Early Collaborative NextGen Process: Part I— Metroplex Optimization," *Managing the Skies*, May 2014

"An Early Collaborative NextGen Process: Part II— Metroplex Optimization," *Managing the Skies*, June 2014

## Certifications and Licenses

Project Management Professional

Private Pilot Instrument Rated Single Engine

## Years of Experience

Ricondo: 8

Other Firms: 15

## Office Location

Carlsbad, California

# Stephen C. Smith

Director

Mr. Smith returned to Ricondo & Associates, Inc. (Ricondo) in 2017. He has 23 years of experience conducting and managing environmental impact analyses and planning projects for a wide variety of airport and air traffic assignments. His responsibilities include planning, assessing, and documenting proposed airport and air traffic projects in compliance with the National Environmental Policy Act (NEPA), as well as the relevant Federal Aviation Administration (FAA) airport and air traffic guidance.

Prior to returning to Ricondo, Mr. Smith served as the contracted Aviation Environmental Program Manager for the FAA's nationwide Metroplex program for nearly six years. He was responsible for overseeing all aspects of the program, including program management, FAA legal counsel support, NEPA process, and technical analysis related to each environmental impact category listed in FAA Order 1050.1F, Environmental Impacts: Policies and Procedures. The level of effort managed by Mr. Smith was valued close to \$20 million, which included the Atlanta, Charlotte, Cleveland/Detroit, Central/South Florida, Denver, North Texas, Northern California, Las Vegas, and Southern California Metroplex environmental assessments (EAs). Major technical efforts included operations analysis, aircraft noise modeling, fuel-burn modeling, geographic spatial analysis, and operations forecasting. He worked directly with FAA headquarters staff to gather lessons learned from the projects, to document them, and to apply them by updating the Metroplex Focused-EA Playbook.

During his tenure at Ricondo between 2004 and 2012, Mr. Smith served as Project Manager for environmental impact analyses, such as the Las Vegas Optimization EA and the Boston Logan Airport Noise Study, and airfield design and operations analyses, such as the Los Angeles World Airports (LAWA) Los Angeles International Airport Specific Plan Amendment Study (SPAS) and the Interim Taxiway Safety Improvement Project (ITSIP). As Project Manager for the Las Vegas Optimization EA, Mr. Smith supported the FAA Environmental Specialist in NEPA process, documentation, and technical analysis. The project involved multiple airports, including Las Vegas McCarran International Airport, and the objective was to implement Performance Based Navigation (PBN) procedures to better enhance the air traffic system and deliver aircraft to runways at a rate closer to the runways' capability. Stakeholder coordination included FAA air traffic control specialists, elected representatives, other governmental agencies, the airport sponsors, Native American tribes, and the public.

The Boston Logan Airport Noise Study was unique in that it was the first joint effort of the FAA, the airport sponsor, and the affected communities in which each party had an equal say related to adjusting air traffic procedures to reduce aircraft noise exposure, except for matters related to aircraft safety and the efficient movement of aircraft. This three-phase study was a requirement of the FAA Record of Decision for the Boston-Logan Airside Environmental Impact Statement (EIS). Mr. Smith managed a multidisciplinary team and a budget valued up to \$8 million. Applying his expertise in environmental analysis, operations analysis, and facilitation, Mr. Smith guided the team in alternative identification, operations/noise screening analysis, air traffic delay simulation analysis, and documentation. In addition, Mr. Smith served as the meeting facilitator involving the airport, the FAA department representatives, over 30 community representatives, and their Independent Consultant team to discuss project scope, schedule, analysis protocols, technical analysis results, and decision-making. He also

provided litigation support to the FAA and the Department of Justice when a community sued the FAA's environmental determination.

For the Los Angeles International Airport SPAS project, Mr. Smith provided oversight in the development and technical analysis related to the airport's North Airfield alternative assessment to address issues identified in the Final Master Plan. He was responsible for identifying and coordinating numerous taxiway and runway alignment concepts designed to address key issues. Airfield concepts were assessed based on FAA Airport Design guidelines, Federal Aviation Regulations (FAR) Part 77 surface impacts, Terminal Instrument Procedures surface impacts, runway incursion prevention design recommendations, pilot visibility of runway end prior to runway crossing, and potential on-airport and off-airport enabling project impacts. With the series of concepts, Mr. Smith coordinated with LAWA and the FAA Los Angeles Air Traffic Control Tower regarding potential operation impacts and/or benefits, and he managed the SIMMOD modeling analysis to quantify benefits associated with each alternative. As a result, a summary matrix was developed to assist LAWA in the decision-making process, which led to a short list of alternatives to be evaluated for potential environmental impacts.

For the Los Angeles International Airport ITSIP project, Mr. Smith managed the concept development and safety assessment related to adjusting the high-speed taxiway geometry and location for Runway 6L/24R. He assisted LAWA in narrowing numerous proposed concepts to a preferred alternative, and he also led the coordination and facilitation associated with the Comparative Safety Risk Assessment that involved a safety panel consisting of LAWA and FAA subject-matter experts. The conclusion of this study led to a preferred alternative that the safety panel found would mitigate the level of risks associated with the current hazards linked to the exit taxiways for Runway 6L/24R. As a follow-up to the ITSIP planning phase, Mr. Smith managed a detailed operations analysis related to the 30 percent design of the preferred ITSIP design. He led engineering design team support intended to ensure the objectives associated with ITSIP were maintained and that any changes of the design would not impact the expected operation of the airfield. This task included a detailed simulation analysis to quantify operational benefits and/or impacts associated with the preferred design.

## Education

Bachelor of Science – Aviation,  
Southern Illinois University

Master of Public Administration –  
Aviation, Southern Illinois  
University

## Professional Affiliations

Aircraft Owners and Pilots  
Association

## Certifications and Licenses

Commercial Pilot Certificate with  
Instrument and Multi-engine  
Ratings

## Years of Experience

Ricondo: 17

Other Firms: 8

## Office Location

Chicago, Illinois

# Dharma Thapa

Director



Mr. Thapa joined Ricondo & Associates, Inc., in 2002 and has more than 20 years of multifaceted aviation planning experience, with expertise in noise analysis, air quality modeling, airfield capacity and delay analyses, airspace planning, aviation activity forecasting, and simulation modeling. With a solid background in the use of the FAA's legacy analytical tools, Integrated Noise Model, the Emissions and Dispersion Modeling System, Mr. Thapa is an industry leader in the use of FAA's next generation of environmental analysis tool, the Aviation Environmental Design Tool (AEDT). A member of FAA's Design

Review Group for the AEDT, Mr. Thapa has applied AEDT on several airport projects (RDU Master Plan; LAWA Taxiway C14 EA; PIT Noise Exposure Map; and ORD VALE for GSE replacement. These core strengths are based on Mr. Thapa's sound knowledge of aviation demand forecasting and use of fast time simulation models, such as the Airport and Airspace Simulation Model (SIMMOD), Total Airspace and Airport Modeler, and the FAA's Terminal Area Route Generation Evaluation and Traffic Simulation. He has also served as a panel member of several aircraft noise related projects of Airport Cooperative Research Program.

Mr. Thapa has participated in several key environmental studies, including: O'Hare Modernization Program; O'Hare World Gateway Program; Chicago Terminal Airspace Project; Los Angeles World Airports; Seattle-Tacoma International Airport Final Environmental Impact Statement for Master Plan Development; and a precedent setting study of de-minimis pollutant levels for seven general aviation airports in Michigan (Michigan Airports Air Quality Study). As part of EIS and environmental assessment efforts at various airports, he has prepared detailed ambient impact assessments of criteria and toxic air pollutants which focused on the following air quality issues: airport emissions including emission inventory and air pollutant dispersion analysis consisting of both mobile and stationary sources; roadway intersection analysis, construction impact analysis; and air toxics evaluation. He has also conducted detailed air quality dispersion analysis from the airport sources for the Midfield Satellite Concourse and multiple RSA studies for various runways at Los Angeles International Airport. He has also worked on preparation and record keeping of the Annual Emissions Report and Title V Permit Renewals of emissions sources at O'Hare International Airport on behalf of the Chicago Department of Aviation.

Mr. Thapa's noise impact analysis experience includes preparation of aircraft noise exposure maps and noise abatement procedures for various airports including Terre Haute International Airport and Cincinnati/Northern Kentucky International Airport under Title 14 Code of Federal Regulations Part 150 (14 CFR 150). He has also developed annual noise exposure maps for Midway International, O'Hare International, Detroit Metropolitan Wayne County, Los Angeles International, and Seattle-Tacoma International Airports. Recently, Mr. Thapa worked on the preparation of the Environmental Report of the Specific Plan Amendment Study for the modernization and improvement of Los Angeles International Airport and he was responsible for airfield and airspace simulations, modeling aircraft noise contours and impact analyses including, sleep disturbance from aircraft noise under various north airfield alternatives.





Gabino Cuevas, MBA, P.E., LEED AP  
CEO



Mr. Cuevas has over 36 years of experience with environmental assessments and remediation. Mr. Cuevas has been the Engineer-of-Record on hundreds of projects in Florida and Georgia and is also certified in Leadership in Energy & Environmental Design Accredited Professional (LEED-AP). Due to his extensive experience in the Florida market and knowledge of Federal, State and Local regulations, Mr. Cuevas has provided expert testimony on legal proceedings related to contaminated sites.

Mr. Cuevas' specific areas of expertise include environmental site audits, underground storage tank management, contamination assessments, initial remedial activities, and remedial system designs and implementation. He also has experience in the design of soil vapor extraction, air stripping treatment, carbon adsorption, chemical oxidation and non-conventional treatment systems. Other environmental activities include: the preparation of spill prevention control countermeasure plans, the design of industrial waste pretreatment systems, conducting canal conveyance capacity studies, and management of Everglades restoration construction projects.

#### REPRESENTATIVE PROJECT EXPERIENCE

**Client Name:** City of Miami      **Client Address:** Marine Stadium, Virginia Key, FL

**Client Contact Information:** Sandra Vega, 305.416.1243 / svega@miamigov.com

**Description of Work:** Asbestos/Lead Paint Survey at the Marine Stadium

**Start/End Date:** 4/2017 - 5/2017      **Value of Project:** \$8,081.36

**Client Name:** City of Miami      **Client Address:** 444 SW 2nd Ave, Miami, FL

**Client Contact Information:** Keith Ng, 305.416.1298, keithng@miamigov.com

**Description of Work:** Soil Sampling and Implementation of Williams Ave & Jefferson St.

**Start/End Date:** 12/2018 - 12/2019      **Value of Project:** \$66,956.14

**Client Name:** City of Miami      **Client Address:** 444 SW 2nd Ave, Miami, FL

**Client Contact Information:** Harry James, 305.416.1026, hjames@miamigov.com

**Description of Work:** Post Active Remediation Monitoring (PARM) on a quarterly basis for one year at Former Supreme (Shamrock) Station

**Start/End Date:** 1/2018 - 3/2019      **Value of Project:** \$37,043.84

**Client Name:** MDAD      **Client Address:** Homestead General Airport

**Client Contact:** Gustavo Leal, 305.876.7928, gleal@miami-airport.com

**Description of Work:** Variance Request- Tank Permit, AST As-builts, Spill Prevention Response Plan (SPRP)

**Start/End Date:** 10/2018 - 12/2019      **Value of Project:** \$53,068.97

#### YEARS OF EXPERIENCE

36 years

#### AREAS OF EXPERTISE

- Remedial Design and Construction
- Stormwater Management
- Facility Environmental Compliance & Management
- Fuel Storage Tank Removal & Installation

#### EDUCATION

B.S. Environmental Engineering,  
University of Florida

#### PROFESSIONAL REGISTRATIONS

Professional Engineer, Florida  
(PE#61885)

#### PROFESSIONAL AFFILIATIONS

- Florida Engineering Society
- Air & Waste Management Association
- American Society of Civil Engineers
- National Groundwater Association

#### TRAINING/CERTIFICATIONS

- OSHA 40/8 Hour HAZWOPER & Refresher
- Asbestos Supervisor
- US Army Corp of Engineers Contractor Quality Management



Alex E. Sanchez, PE, GC,  
PSSC, CUC  
Executive V.P.



Alex Sanchez has over 25 years of experience in design, construction and construction management with a focus in environmental, fuel systems and civil/heavy construction services. Mr. Sanchez is a Professional Engineer (PE), certified LP Gas Installer "A", Pollutant Storage System Contractor (PSSC), General Contractor (GC), Underground & Excavation Contractor (CUC) in the State of Florida.

Mr. Sanchez has a proven track record for his capabilities in management of Design and Construction projects. He has considerable experience working on projects for Municipal Government agencies, the Federal Government, as well as other Public and Private Entities, such as Coca Cola, Verizon, and Johnson & Johnson. In addition, Mr. Sanchez has an exceptional ability to provide solutions and meet high demands on difficult and sensitive Federal Contracts.

Some additional areas of expertise include: petroleum contamination remediation; and contamination assessment reports, fueling equipment specification, pumping systems design and installation, tank removals, tank closures, tank testing, regulatory agency liaisons, oil/water separator (OWS) systems maintenance and installation, wash water recycle systems repair and modification, civil site work, drainage installation, water and sewer line installation.

### REPRESENTATIVE PROJECT EXPERIENCE

- Client Name:** ISD Fleet Maintenance      **Client Address:** 111 NW 1st St., Suite 1050  
**Client Contact Info:** Scott Stephens, 305.375.2288, scott.stephens@miamidade.gov  
**Description of Work:** Monitoring Wells annually and oil/water separator (OWS) semi-annually for IW permits  
**Start/End Date:** 11/2018 - 5/2019      **Value of Project:** \$6,370.00
- Client Name:** Miami-Dade Transit      **Client Address:** MDT Bus/Metrorail Maint. Fac.  
**Client Contact Information:** Akbar Sharifi, P.E., 786.469.5269, akr@miamidade.gov  
**Description of Work:** MDT Bus/Metro Rail Facilities Operations & Maintenance Inspections & Reporting  
**Start/End Date:** 1/2018 - 7/2019      **Value of Project:** \$109,850.19
- Client Name:** Equinix      **Client Address:** 50 NW 9th St. Miami, FL  
**Client Contact Information:** Mario Martinez, 786.493.1204, marmartinez@equinix.com  
**Description of Work:** Monthly Operation/Maintenance Inspections & Annual Certifications  
**Start/End Date:** 1/2019 - 12/2019      **Value of Project:** \$17,550.00
- Client Name:** School Board of Broward County      **Client Address:** Multiple Schools in District  
**Client Contact:** Alison Witoshynsky, 754.321.4200, alison.witoshynsky@broward-schools.org  
**Description of Work:** Broward Schools (9) Annual Certifications of Veeder Root System  
**Start/End Date:** 2/2018 - 1/2019      **Value of Project:** \$1,980.00

### YEARS OF EXPERIENCE

25 years

### AREAS OF EXPERTISE

- Environmental Restoration
- Heavy/Civil Construction
- Fuel Tanks & Piping Installation
- Fueling Facility Design

### EDUCATION

B.S. in Environmental Engineering,  
University of Florida

### AREAS OF EXPERTISE

- Professional Engineer, Florida (PE#54637)
- LP Gas Installer "A", Florida (29026)
- Pollutant Storage Systems Contractor, Florida (PCC056813)
- General Contractor, Florida (CGC1505536)
- Underground & Excavation Contractor (CUC1224968)

### PROFESSIONAL AFFILIATIONS

- American Society of Civil Engineers (ASCE)
- Florida Engineering Society
- Petroleum Equipment Institute (PEI)
- NFPA

### TRAINING/CERTIFICATIONS

- USACE, Construction Quality Management Contractor's Cert.
- OSHA 40 Hr. HAZWOPER
- OSHA 30 Hr. Construct.
- OSHA 8 Hour Supervisor
- Excavation Competent Person
- Project Manager's Boot Camp
- Swagelok Tube Fitting / Bending



**Paula Sessions**  
*Director Environmental Services*



Ms. Sessions is a Director Environmental Services with over 33 years of experience. She is responsible for managing staff of scientists and engineers and for providing oversight in all environmental contracts. Ms. Sessions has managed contracts with Miami-Dade County and Broward County, as well as Hazardous Waste Contracts with DERM. Her current responsibilities include, but are not limited to: Interfacing with clients, preparing proposals, managing projects, including providing technical guidance and assembling a team of qualified personnel to fit the client’s project needs, maintaining project schedules and budgets, and client invoicing.

Ms. Sessions had extensive experience with environmental site assessments, tank closure assessments, source removals, methane gas assessments, remedial action design and implementation, and operation and maintenance of long-term remediation systems. She is a registered Professional Geologist in the State of Florida, and is familiar with the FDEP regulatory process.

#### REPRESENTATIVE PROJECT EXPERIENCE

**Client Name: Miami-Dade County DERM** Client Address: Gwen Cherry Park, 7090 NW 22nd Ave, Miami, FL 33147 Client Contact Information: Gregory Sitomer, 305.372.6812, gregory.sitomer@miamidade.gov

Description of Work: Monitoring Well installation and Groundwater Sampling

Start/End Date: 5/2019 - 6/2019 Value of Project: \$24,810.54

**Client Name: City of Miami** Client Address: Marine Stadium, Virginia Key, FL

Client Contact Information: Sandra Vega, 305.416.1243 / svega@miamigov.com

Description of Work: Asbestos/Lead Paint Survey at the Marine Stadium

Start/End Date: 4/2017 - 5/2017 Value of Project: \$8,081.36

**Client Name: City of Miami** Client Address: 444 SW 2nd Ave, Miami, FL

Client Contact Information: Keith Ng, 305.416.1298, keithng@miamigov.com

Description of Work: Soil Sampling and Implementation of Williams Ave & Jefferson St.

Start/End Date: 12/2018 - 12/2019 Value of Project: \$66,956.14

**Client Name: Miami-Dade Water & Sewer Dept.** Client Address: White Rock Quarries, vicinity of NW 74 St and Turnpike Extension

Client Contact: Ana Caveda, 305.372.6727, ana.caveda@miamidade.gov

Description of Work: White Rock Quarry Phase I and II Environmental Site Assessment

Start/End Date: 11/2018 - 1/2019 Value of Project: \$30,134.76

#### YEARS OF EXPERIENCE

33 years

#### AREAS OF EXPERTISE

- Environmental Contracts
- Site Assessments
- Remedial Action Plans
- Monitoring Plans
- Environmental Program Management
- Closure Reports
- Monitoring Wells Installation and Sampling Oversight
- Source Removal Plans
- Groundwater Assessment
- Landfill Cap and Closure Design
- Permitting Services

#### EDUCATION

- B.S. In Geology, University of Texas at Austin - 1984

#### PROFESSIONAL REGISTRATION

- Professional Geologist - Florida # 1416 - 1992

#### TRAINING/CERTIFICATIONS

- OSHA 40 Hr. HAZWOPER
- Red Cross Adult CPR
- First Aid/ AED



## Amanuel Worku, P.E

*Vice President*



As a Vice President at CEI, Mr. Worku is primarily responsible for managing large-scale environmental engineering and remediation and airport bulk fuel storage and distribution system projects. He is especially selected to handle high-profile and highly technical projects, and those requiring his unique combination of knowledge, experience, patience and ability to transform "difficult" projects into successful ventures. Mr. Worku has established many key professional relationships during the last 22 years managing Professional Services Agreement for Groundwater, Surface Water & Soil Contamination Cleanup Services for Miami-Dade County Facilities. Over this period, he has interfaced successfully with many agencies, negotiated the most cost effective solutions for cleaning up contaminated properties, and presented Best Value solutions to his Clients.

His specific areas of expertise include environmental site assessments, remedial system design and implementation, storage tank management and Construction Management of multimillion dollar environmental remediation projects.

### REPRESENTATIVE PROJECT EXPERIENCE

**Client Name:** Miami-Dade Aviation Dept. (MDAD) **Client Address:** Miami Intl. Airport

**Client Contact Information:** Gustavo Leal, 305.876.7928 / gleal@miami-airport.com

**Description of Work:** Miami-Dade County Hazardous Material Removal Contract, Asbestos Abatement Activities and Demo at Bldg. 888

**Start/End Date:** 10/2018 - 3/2019 **Value of Project:** \$310,466.66

**Client Name:** City of Miami **Client Address:** 444 SW 2nd Ave, Miami, FL

**Client Contact Information:** Keith Ng, 305.416.1298, keithng@miamigov.com

**Description of Work:** Soil Sampling and Implementation of Williams Ave & Jefferson St.

**Start/End Date:** 12/2018 - 12/2019 **Value of Project:** \$66,956.14

**Client Name:** City of Miami **Client Address:** 444 SW 2nd Ave, Miami, FL

**Client Contact Information:** Harry James, 305.416.1026, hjames@miamigov.com

**Description of Work:** Post Active Remediation Monitoring (PARM) on a quarterly basis for one year at Former Supreme (Shamrock) Station

**Start/End Date:** 1/2018 - 3/2019 **Value of Project:** \$37,043.84

**Client Name:** Allied Aviation, Inc. **Client Address:** MIA Fuel Facility- NW 20th St.

**Client Contact:** Thomas Doherty, 305.871.7001, thomas.doherty@alliedaviation.com

**Description of Work:** Monthly Inspections & Repairs of Hydrant Compliance Wells

**Start/End Date:** 4/2016 - 4/2017 **Value of Project:** \$15,280.00

### YEARS OF EXPERIENCE

22 years

### AREAS OF EXPERTISE

- Remedial Design and Construction
- Stormwater Management
- Facility Environmental Compliance & Management
- Fuel Storage Tank Removal & Installation

### EDUCATION

B.S. Environmental Engineering,  
University of Florida

### PROFESSIONAL REGISTRATIONS

Professional Engineer, Florida  
(PE#61885)

### PROFESSIONAL AFFILIATIONS

- Florida Engineering Society
- Air & Waste Management Association
- American Society of Civil Engineers
- National Groundwater Association

### TRAINING/CERTIFICATIONS

- OSHA 40/8 Hour HAZWOPER & Refresher
- Asbestos Supervisor
- US Army Corp of Engineers Contractor Quality Management

## E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE		
<b>Robert Bogert, PE</b>	<b>Site Assessment and Remediation</b>	a. TOTAL:	25	b. WITH CURRENT FIRM:
				1
15. FIRM NAME AND LOCATION MSE Group, LLC, Orlando, Florida				
16. EDUCATION MS, Environmental Engineering BS, Environmental Engineering		17. CURRENT PROFESSIONAL REGISTRATION Professional Engineer – FL#53978, GA#30672, MS#16203		

**18. OTHER PROFESSIONAL QUALIFICATIONS:**

Rob Bogert is an experienced project manager with over 25 years of experience performing due diligence assessments, contamination assessments, and remediation design and implementation under federal and state-led programs including RCRA, HSWA, CERCLA, SARA, TSCA. He is a subject matter expert for remediation design, planning, and construction/implementation including CMS, FS, CMD, RD, CMI, and interim remedial actions. Rob has directly performed over \$65 million in environmental projects for commercial, municipal, and federal clients and will bring a high level of performance and experience to the City of Orlando contract.

### 19. RELEVANT PROJECTS

(1) TITLE AND LOCATION	(2) YEAR COMPLETED	
<b>Conceptual Site Model Update and Remedy Optimization, NAVFAC Mid-Atlantic, MCLB Albany, GA</b>	PROFESSIONAL SERVICES 2017 - present	CONSTRUCTION N/A
(3) BRIEF DESCRIPTION AND SPECIFIC ROLE <span style="float: right;"><input checked="" type="checkbox"/> Check if project performed with current firm</span>		
<p>a. <b>Project Manager</b> responsible for managing the development and remedy effectiveness evaluations for groundwater contaminated with chlorinated solvents. A remedy effectiveness including MNA, chemical injection, and ground surface covers for LTM/LTO sites was performed to reassess the original treatability study findings. Analyzed increasing and stabilized trends of CVOCs using Mann-Kendall statistics and evaluated the reduction in risk to human health and environment. Remedy optimization reduced LTM/LTO costs by shortening the time required to achieve remediation goals. <b>Contract Value: \$1,723,126</b></p>		
<b>Basewide Environmental Support Contract for Comprehensive Environmental Support Services, USACE Mobile, Southeast U.S.</b>	PROFESSIONAL SERVICES 2016 - present	CONSTRUCTION N/A
(3) BRIEF DESCRIPTION AND SPECIFIC ROLE <span style="float: right;"><input checked="" type="checkbox"/> Check if project performed with current firm</span>		
<p>b. <b>Project Manager</b> responsible for the execution of all work including the preparation of work plans, SAPs, engineering designs, quality QAPPs, and interim remedial action plans/reports. Tasks include hazardous materials management, TSCA investigations, soil remediation and removal, and water quality monitoring. Interim measures have addressed petroleum, PCB, lead, and PFAS contamination requiring development of site safety and health plans that meet USACE requirements under EM 385-1-1. Partnering at AEDC enabled AF to meet goals of timely restart of wind tunnel testing in 2019. <b>Contract Value: \$2,180,059</b></p>		
<b>Environmental Engineering Continuing Services Contract, Greater Orlando Aviation Authority (GOAA), Orlando, FL</b>	PROFESSIONAL SERVICES 2013 - present	CONSTRUCTION N/A
(3) BRIEF DESCRIPTION AND SPECIFIC ROLE <span style="float: right;"><input checked="" type="checkbox"/> Check if project performed with current firm</span>		
<p>c. <b>Project Manager</b> responsible for ensuring environmental services are performed in accordance with contract, technical, and industry-standard practices. Projects have included permit maintenance reviews, Phase I/II ESAs, hazardous building materials surveys, engineering design and specification writing, construction administration, and electronic database development. Review of GOAA permits and annual sampling requirements reduced client laboratory costs by \$80,000 per year. <b>Contract Value: \$1,155,045</b></p>		
<b>Former Peabody Hotel Dry Cleaning Site, Hyatt Regency, Orlando, FL</b>	PROFESSIONAL SERVICES 2005 - present	CONSTRUCTION N/A
(3) BRIEF DESCRIPTION AND SPECIFIC ROLE <span style="float: right;"><input checked="" type="checkbox"/> Check if project performed with current firm</span>		
<p>d. <b>Project Manager</b> providing technical support to EnSafe for the assessment and remediation of solvent contamination at the former Peabody Hotel. The nature and extent of PCE and TCE was defined through a multi-phased approach utilizing high-resolution site characterization data collection tools to precisely identify the source areas and plume extent. At a separate petroleum release area, site closure via NFAC using RMO II was achieved, saving \$25,000 per year in O&amp;M costs. <b>Contract Value: \$600,000</b></p>		

**E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT**

Amy Twitty, PG	Site Assessment and Remediation	a. TOTAL 30	b. WITH CURRENT FIRM 2
15. FIRM NAME AND LOCATION (City and State) MSE Group, LLC (Orlando, FL)		17. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE) Professional Geologist - Florida	
16. EDUCATION (DEGREE AND SPECIALIZATION) B.S., Geology, University of Florida			

18. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.)

Amy Twitty has 30 years of environmental consulting experience and a proven track record in managing large and small CERCLA and RCRA site investigation and remediation projects for the DoD and commercial clients throughout the southeastern United States. She has prepared and reviewed numerous technical documents including proposals, work plans, sampling and analysis plans, site rehabilitation completion reports, land use control implementation plans, engineering evaluation/cost analyses, action memoranda, remedial investigation/feasibility studies, remedial action plans, human health and ecological risk assessments, and construction completion reports.

**19. RELEVANT PROJECTS**

(1) TITLE AND LOCATION (City and State) <b>GOAA, Continuing Environmental Engineering Services, Orlando, FL</b>		PROFESSIONAL SERVICES Ongoing	CONSTRUCTION (if applicable) N/A
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <b>a. Project Manager (Contamination Assessment &amp; Remediation)</b> responsible for completing over 15 BEII performed as part of the GOAA due diligence for property acquisitions or tenant leasing agreements. Manages field teams and serves as senior technical lead performing BEIIs in accordance with ASTM E1527-13 standards, FDOT Chapter 20 requirements, and FDEP SOPs. <b>Contract Value: \$99,962</b>		<input checked="" type="checkbox"/> Check if project performed with current firm	
(1) TITLE AND LOCATION (City and State) <b>W91278-17-D0001 FY17 TSCA Support, Propulsion Wind Tunnel Complex, Phase1, Arnold AFB, TN</b>		PROFESSIONAL SERVICES Ongoing	CONSTRUCTION (if applicable) N/A
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <b>b. Project Manager (Contamination Assessment &amp; Remediation)</b> responsible for all aspects of the Propulsion Wind Tunnel (PWT) assessment activities to comply with EPA's TSCA regulations and mission-critical directive to bring the PWT back online by 2019. Developed a PCB compliance plan that included a project management plan and defined data quality objectives for the sampling and data analysis of PCB-impacted work surfaces to assess changing conditions during PWT operation required to maintain worker safety and TSCA compliance. <b>Contract Value: \$349,930</b>		<input checked="" type="checkbox"/> Check if project performed with current firm	
(1) TITLE AND LOCATION (City and State) <b>Confidential Global Security Company, Corporate Environmental Services Contract, Orlando, FL</b>		PROFESSIONAL SERVICES 2018	CONSTRUCTION (if applicable) N/A
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE <b>c. Project Manager (Contamination Assessment &amp; Remediation)</b> for implementation of a Phase I environmental site assessment (ESA) performed as due diligence in the conversion of the subject property from its current use as a testing facility to a wetland mitigation bank. The Phase I ESA was performed in accordance with ASTM E1527-13 standards and EPA's All Appropriate Inquiry Rule 40 CFR Part 312. <b>Contract Value: \$11,000</b>		<input checked="" type="checkbox"/> Check if project performed with current firm	

**E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT**

Paul Seavy, PE, PSSC, CBC	Storage Tanks, Stormwater Pollution Prevention	a. TOTAL	30	b. WITH CURRENT FIRM	13
		15. FIRM NAME AND LOCATION <i>(City and State)</i> MSE Group, LLC (Tampa, FL)			
16. EDUCATION <i>(DEGREE AND SPECIALIZATION)</i> B.S., Chemical Engineering, Drexel University		17. CURRENT PROFESSIONAL REGISTRATION <i>(STATE AND DISCIPLINE)</i> Professional Engineer - Florida; Pollutant Storage System Contractor - Florida; Certified Building Contractor - Florida			

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*

Paul Seavy is MSE's principal engineer with extensive experience providing environmental engineering, construction, and design/build services for government, municipal, and private clients. Paul has a passion for creative solutions and innovation and provides oversight to many of MSE's largest and most challenging projects. His design and construction experience includes petroleum fuel tank system installation, removal and remediation, air sparge systems, vapor extraction systems, groundwater extraction/injection systems, in situ oxidation, enhanced bioremediation, landfill capping, and wastewater treatment systems. He has extensive knowledge of federal, State of Florida, and local regulations governing hazardous and solid waste, storage tanks, hazardous materials, and petroleum contamination.

**19. RELEVANT PROJECTS**

(1) TITLE AND LOCATION <i>(City and State)</i> <b>GOAA, Continuing Environmental Engineering Services, Orlando, FL</b>		PROFESSIONAL SERVICES Ongoing	CONSTRUCTION <i>(if applicable)</i> N/A
(3) BRIEF DESCRIPTION <i>(Brief scope, size, cost, etc.)</i> AND SPECIFIC ROLE a. <b>Project Manager (Storage Tanks)</b> responsible for updating the OIA and OEA SPCC plan in accordance with EPA 40 CFR 112 and FAC 62-762 rules. Tasks have included onsite inventory, compliance inspections, incorporation of data into an electronic database, and supporting monthly storage tank inspections performed in accordance with SPCC requirements. <b>Contract Value: \$1,155,045</b>		<input checked="" type="checkbox"/> Check if project performed with current firm	
(1) TITLE AND LOCATION <i>(City and State)</i> <b>Confidential Global Security Company, Corporate Environmental Services Contract, Orlando, FL</b>		(2) YEAR COMPLETED PROFESSIONAL SERVICES Ongoing	CONSTRUCTION <i>(if applicable)</i> N/A
b. <b>Project Manager (Storage Tanks)</b> responsible for storage tank management and engineering design/build projects including a turnkey storage tank system design, closure assessment, installation of aboveground emergency generator fuel farm, and design/build for replacement of a \$2,000,000 industrial wastewater pretreatment system. <b>Contract Value: \$7,215,143</b>			
(1) TITLE AND LOCATION <i>(City and State)</i> <b>U.S. Army Corps of Engineers (USACE) Mobile District, W91278-17-D-0001/BEST Mobile, AL</b>		(2) YEAR COMPLETED PROFESSIONAL SERVICES Ongoing	CONSTRUCTION <i>(if applicable)</i> N/A
c. <b>Project Manager (Storage Tanks)</b> responsible for management of the full-time onsite personnel at Fort Campbell who manage the facility's tank management program. Task under this contract include performing more than 9,000 annual inspections of aboveground/underground storage tanks (AST/UST) and spill containment systems at over 300 locations, assessing over 200 site-specific quarterly SPCC sites, providing technical guidance for correcting deficiencies, performing facility response drills, and updating the facility SPCC plan. <b>Contract Value: \$765,165</b>			

**E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT**

12. NAME		13. ROLE IN THIS CONTRACT		14. YEARS EXPERIENCE	
Ellen Eveland, PE		Stormwater Pollution Prevention		a. TOTAL 22	b. WITH CURRENT FIRM 8
15. FIRM NAME AND LOCATION (City and State) MSE Group, LLC (Tampa, FL)					
16. EDUCATION (DEGREE AND SPECIALIZATION) B.S., Civil Engineering, Florida Institute of Technology				17. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE) Professional Engineer - Florida	

18. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.)  
 Ellen Eveland is an associate and senior engineer with experience providing environmental engineering, consulting, and construction services for government, municipal, and private clients. She is an experienced engineer in the civil engineering field, including field office management, project management, stormwater management system design/permitting and construction, and environmental compliance project management. She has extensive knowledge of federal, State of Florida, and local regulations governing hazardous and solid waste, storm water, storage tanks, hazardous materials, and petroleum contamination.

**19. RELEVANT PROJECTS**

(1) TITLE AND LOCATION (City and State)		(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)
<b>GOAA, Continuing Environmental Consulting Services, Orlando, FL</b>		Ongoing	N/A
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE a. <b>Project Manager (Engineering Design)</b> responsible for monitoring facility-wide surface water quality to detect any potential pollution problems that may result from onsite and offsite activities. Tasks include surface water modeling, data trending, and engineering design of onsite water quality stations. Also responsible for maintaining the water quality stations, sensor calibration, and telemetry system upgrades. <b>Contract Value: \$737,134</b>		<input checked="" type="checkbox"/> Check if project performed with current firm	
<b>Confidential Global Security Company, Environmental Services Contract, Nationwide</b>		Ongoing	Ongoing
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE b. <b>Project Manager (Engineering Design)</b> responsible for drainage analysis and environmental resource permitting for facility-wide CWA permit. Responsibilities include field inspection, drainage model development, regulatory coordination, and permitting. Also serves as engineer-of-record for civil design and construction activities associated with the stormwater system. <b>Contract Value: \$953,742</b>		<input checked="" type="checkbox"/> Check if project performed with current firm	
<b>U.S. Army Corps of Engineers (USACE) Mobile District, W91278-17-D-0001/BEST Mobile, AL</b>		Ongoing	N/A
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE c. <b>Project Manager (Engineering Design)</b> responsible for implementing a multi-year NPDES best management action plan (BMAP). The project included development of a site-specific 12-month/seasonal monitoring program, including surface water runoff and groundwater monitoring and sampling, to establish baseline surface water discharges of nutrients. Also included development of basewide groundwater contour maps to establish the presence of hydrologic interaction between groundwater and surface water. Responsible for modeling, reporting, and presenting these data at public outreach meetings. <b>Contract Value: \$378,758</b>		<input checked="" type="checkbox"/> Check if project performed with current firm	



## E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE			
Ashley Signorelli, PE	Environmental Site Assessment & Audits	a. TOTAL:	13	b. WITH CURRENT FIRM:	10
15. FIRM NAME AND LOCATION					
MSE Group, LLC, Orlando, Florida					
16. EDUCATION		17. CURRENT PROFESSIONAL REGISTRATION			
BS, Chemical/Biomedical Engineering BS, Food Science and Human Nutrition		Professional Engineer – FL #72263			
18. OTHER PROFESSIONAL QUALIFICATIONS:					
Ashley Signorelli is a senior project manager/senior engineer with over 13 years of consulting experience and a proven track record in managing small and large environmental projects. Her experience with small property transfers and multi-year/multimillion-dollar projects for municipalities, federal government, and industrial clients will benefit the City relative to risk management and cost control.					

## 19. RELEVANT PROJECTS

(1) TITLE AND LOCATION	(2) YEAR COMPLETED	
Environmental Engineering Continuing Services Contract, Greater Orlando Aviation Authority, Orlando, FL	PROFESSIONAL SERVICES 2013 - present	CONSTRUCTION N/A
(3) BRIEF DESCRIPTION AND SPECIFIC ROLE <span style="float: right;"><input checked="" type="checkbox"/> Check if project performed with current firm</span>		
a. <b>Senior Engineer</b> responsible for completing over 20 Phase I/II ESAs annually and ensuring successful completion of other contract scope items. The ESAs are performed during property acquisitions or tenant leasing transactions and involve multi-stakeholder coordination and presentation of data to GOAA's property management, legal, environmental, and planning departments. The firm uses 95% UCL statistical analysis to demonstrate when properties can be closed without active remediation, allowing tenant lease negotiations to move forward without lengthy delays or legal actions. <b>Contract Value: \$1,155,045</b>		
Petroleum Investigation, Remediation and Alternative Site Closure, Department of Veterans Affairs, Orlando, FL	PROFESSIONAL SERVICES 2016	CONSTRUCTION 2012
(3) BRIEF DESCRIPTION AND SPECIFIC ROLE <span style="float: right;"><input checked="" type="checkbox"/> Check if project performed with current firm</span>		
b. <b>Senior Engineer</b> responsible for assessment, engineering design, site closure planning, and client and regulatory coordination. Included turnkey assessment, design, and construction of engineered systems to achieve regulatory alternative closure of petroleum-impacted soil and groundwater. Negotiating/implementing multiple site closure strategies saved the VA over \$100,000 in additional assessment and \$500,000 and several years of active remediation. Received SRCO in 2016. <b>Contract Value: \$323,557</b>		
Corporate Environmental Services Contract, Confidential Global Security Company, Statewide, FL	PROFESSIONAL SERVICES 2017	CONSTRUCTION 2017
(3) BRIEF DESCRIPTION AND SPECIFIC ROLE <span style="float: right;"><input checked="" type="checkbox"/> Check if project performed with current firm</span>		
c. <b>Senior Engineer</b> responsible for contract management, assessment, and engineering design. Projects included environmental assessment, wastewater treatment system design, environmental permitting, petroleum storage tank closure, risk assessments, and wetland and T&E surveys. The firm also completed a large chlorinated solvent assessment and remediation project that saved over \$1 million in implementation costs and reduced the site closure schedule by over 2 years. <b>Contract Value: \$7,215,143</b>		
Mixed Solvent-Petroleum Groundwater Investigation, Remediation, and Alternative Site Closure, FUJIFILM USA, Orlando, FL	PROFESSIONAL SERVICES 2010 - present	CONSTRUCTION N/A
(3) BRIEF DESCRIPTION AND SPECIFIC ROLE <span style="float: right;"><input checked="" type="checkbox"/> Check if project performed with current firm</span>		
d. <b>Senior Engineer</b> responsible for the assessment, remediation design, and alternate site closure of this mixed solvent-petroleum-impacted site. Due to the complexity and sensitive nature of the site, the owner struggled to find a consultant to meet the demanding schedule and costs allocated to bring the site to closure. The owner contracted with MSE as the fifth consultant in 5 years and implemented an innovative approach to simultaneously addressing the free product recovery and reduced the petroleum and solvent impacts to a level acceptable for a risk-based closure. The site received SRCO in 2019. <b>Contract Value: \$342,965</b>		

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**PETER J. BYRNE, C.M.**  
*Avion Solutions Group, LLC*  
*Director*



**EDUCATION**

- Master of Business Administration, State University of New York at Albany, 2003
- B.S., Professional Aeronautics, Aviation Business Administration, Embry-Riddle Aeronautical University, 1994

**PROFESSIONAL AFFILIATIONS**

- American Association of Airport Executives – Certified Member
- Airport Consultants Council
- New York Aviation Management Association
- Airports Council International – Environmental Affairs Committee Member
- Lecturer in Aviation Planning and Environmental Issues: University of Pennsylvania, New York Institute of Technology (NYIT)

**PROFESSIONAL EXPERIENCE**

Peter Byrne is Director and a Senior Aviation Planner with national and international experience in facility planning, financial consulting, and NEPA environmental analysis for airports of varying size and function. He has a total of 26 years' experience that spans both the public and private sector. He is a Certified Member of the American Association of Airport Executives, and brings unique experience related to airfield and aircraft operations, air cargo, aircraft maintenance and capital development funding strategies.

Mr. Byrne has a demonstrated track record of working closely with local, state, and federal agencies including the Federal Aviation Administration. With his core base of experience in the public sector, Mr. Byrne possesses a strong understanding of the airport operator's requirements. Mr. Byrne uses his understanding of complex planning and environmental issues to assist airports and private developers with strategic decision making to support capital programs. Mr. Byrne has performed this service at corporate general aviation airports up to large-hub airports.

A sample of relevant project include:

**Aviation Advisory Services - Westchester County Airport, White Plains, NY.**

ASG is providing advisory services to the office of the County Executive in support of operations, management, planning and environmental reviews. Mr. Byrne supports the County Executive with recommendations on planning and development, regulatory reviews, and environmental documentation.

**Airport Modernization and Enhancement Program, Coleman A. Young International Airport, Detroit MI**

Avion Solutions Group has been retained by the City of Detroit to assist with the modernization and revitalization of the Airport. Peter Byrne is the client manager and he is currently working with City staff to formulate a plan that will redevelop the Airport, strengthen its financial position, and accommodate future activity.

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### **John F. Kennedy International Airport – Terminal One Redevelopment P3**

ASG was retained by a developer and a consortium of airlines for the redevelopment of Terminal One at JFK. ASG's role on the development team was to support the P3 proposal specifically with environmental strategy. ASG devised an expedited environmental review process that would meet FAA NEPA requirements while allowing the P3 team to begin construction as early as possible to support financing commitments. This included working closely with key team members such as architects, planners, and financial analysts to ensure the environmental review was consistent with the development concept. ASG met regularly with the airport sponsor to coordinate the environmental review effort and with FAA staff to validate assumptions and overall analysis approach.

### **John F. Kennedy International Airport Redevelopment Program, Environmental Assessment and Planning Support, Port Authority of New York and New Jersey (Port Authority), New York, NY**

Mr. Byrne is providing the Port Authority of New York and New Jersey (Port Authority) with strategic airport environmental services and assisting Port Authority staff with completing a complex Environmental Assessment (EA) to meet FAA National Environmental Policy Act (NEPA) compliance.

### **Talon Air Expansion Planning and Design, Republic Airport, Farmingdale, NY**

Mr. Byrne is leading a team of planners and engineers that have developed a series of expansion plans that encompasses FBO buildings, hangars, aircraft parking ramps, taxilanes, aircraft fueling facilities, landside road modifications, and office areas. This required the development of operational forecasts to assess future demand for Talon Air services. In support of the development plan, Peter's team also developed detailed cost estimates, assessed potential environmental impacts, assessed constructability, and included the findings of these analyses in an alternatives evaluation process that resulted in a preferred development plan that Talon will be pursuing.

**Rhode Island Airport Corporation - T.F. Green Airport EIS.** Mr. Byrne provided airport planning services on this EIS to support the purpose and need and alternatives analysis in support of the EIS. Mr. Byrne was also responsible for the development of the Runway Length Analysis that was conducted in accordance with FAA requirements. The results of the runway length analysis supported the purpose and need of the EIS and was used to screen alternatives.

**Southern Nevada Supplemental Airport.** Mr. Byrne responsible for the management of this Environmental Impact Statement for a new "greenfield" commercial service airport in Southern Nevada. The airport will provide additional capacity for Las Vegas, Nevada to accommodate projected aviation demand. Mr. Byrne's role on this project included the analysis of airport siting, airspace issues, navigational aids, obstruction analysis, aviation activity forecasts, airport capacity, and construction feasibility.

- **Sacramento Mather Airport – Air Cargo Area Development.** This project constructed water, storm and sanitary sewer utilities to support air cargo development on a 22-acre site at Sacramento Mather Airport. Mr. Byrne was responsible for the initial design and the environmental mitigation portion of the project. The project site contained several acres of federally protected wetlands requiring coordination with the U.S. Army Corps of Engineers and the U.S. Fish and Wildlife Service prior to construction. Mr. Byrne also applied for and received federal and state grants to partially

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fund the construction of this project, thereby offsetting Sacramento County's fiscal liability by \$750,000.

- **Sacramento County Airport System – Military Base Conversion and Joint-Use.** Mr. Byrne was instrumental in assisting with the conversion of two former military bases: Mather Air Force Base to strictly civilian use and the conversion of McClellan Air Force Base to a joint-use facility. As these conversion processes progressed over a 6-year period, Mr. Byrne functioned in several capacities during the conversion process. The issues Mr. Byrne was responsible for during the conversion process included:
  - Airport Layout Plans (ALP);
  - FAA NEPA Analysis;
  - Airport certification;
  - National Plan of Integrated Airport System (NPIAS);
  - Building condition reports;
  - Code compliance;
  - Federal, State and local grants;
  - Superfund site remediation;
  - FAA safety and standards assessments;
  - Navigational Aids Commissioning;
  - Air Traffic Control Tower Commissioning;
  - Coordinate base reuse with regional councils of governments; and,
  - Marketing and business development.

**ROBERT V. ORI**  
**PRINCIPAL**

**ROLE:**

Robert Ori is one of the principal owners of Planning Technology, Inc. As Principal of the firm, he is responsible for coordination, technical conduct and quality control of company tasks. His expertise centers on working with clients to identify, develop and implement new and unique computer hardware and software applications for the aviation community and in conducting aviation planning studies.

**SPECIALTY:**

Identifying, developing and implementing state-of-the-art computer technology applications in the aviation planning arena. Areas include airspace analysis, three-dimensional modeling, simulation, airport and facility planning, GIS, web-enabled applications, wireless applications development and high-end computer generated graphics.

**CREDENTIALS:**

M.B.A., Embry-Riddle Aeronautical University, 1991

B.S. in Aeronautical Studies, Embry-Riddle Aeronautical University, 1985

Various seminars and workshops on airport, airspace, heliport and military aviation planning

Airports Council International

Private Pilot Certificate

Florida Airports Council

**EXPERIENCE:**

Over 35 years of experience in the aviation planning and computer applications environment. He has played key roles in identifying, developing and implementing unique standardized technological approaches and methodologies for gaining consistent quality and efficiency in project production that have become a recognized model for the aviation community.

Key involvements include:

Project and technical leader for the development of the Interactive Airport Layout Plan (iALP) and review systems for airports. These efforts entailed the definition of planning capabilities needed, complete assessment and interpretation of FAA criteria, OE/AAA data web services connections, complete analysis of airspace restrictions, assessment of digital data, recommendations on efficient data collection techniques, development and integration of off the shelf technology, use of web based methodologies and coordination with sponsor, FAA and State representatives. Sponsors include the Puerto Rico Ports Authority, Port of Seattle, Port Authority of NY&NJ, Memphis-Shelby County Airport Authority, Miami-Dade Aviation Department and the Hillsborough County Aviation Authority.

Helped to design, develop, implement and support Dispatch on Demand (DOD) Services which is an automated taxi dispatch system for John F. Kennedy International, Newark Liberty International and LaGuardia Airports. The system successfully manages and reports on over 19,000 taxis a day.

Project principal working with ACI on the design, development and implementation of the CurbPing application that independently monitors and tracks TNC operations at airports.

Project coordinator and planner for the original computerized three-dimensional airport layout plan project for Orlando International Airport. This involved the construction of 3-D airport structures, developing and incorporating airspace and shadow diagramming programs and tailoring the system to the client and FAA specifications.

Developed and continues to enhance, implement and support the Three-Dimensional Airspace Analysis Process (3DAAP) for Airport Sponsors, FAA Regions and ADOs and State Aviation agencies nationwide.

Training on airport planning, airspace planning, heliport studies and 3DAAP at numerous Airports throughout the world including the Port of Seattle, Puerto Rico Ports Authority, Greater Orlando Aviation Authority, the Port Authority of New York & New Jersey, the Republic of China and with FAA and State Department of Transportation personnel.

Established Terminal Instrument Procedures (TERPS) digital CADD templates representing 3D surfaces for numerous airports throughout the world including SeaTac, Memphis International, Miami International, Orlando International, Orlando Executive, Palm Beach International, JFK International, Newark Liberty International, LaGuardia, Luis Munoz Marin International, Tampa International and Phoenix Sky Harbor International Airports for use with the 3DAAP applications.

Worked on height zoning regulations with the State of Florida and several airports throughout the Country which included the definition of all aspects of airspace restricting criteria (FAR Part 77, TERPS, airline specific restricting surfaces, helicopter corridors).

Written several articles regarding 3DAAP and its use at airports.

Project principal for an interactive County wide, web-enabled airspace review and notification system for the Port Authority of New York and New Jersey, Palm Beach County Department of Airports and the Metro Dade County Aviation Department.

Developed various web-enabled airport planning capabilities including data retrieval, airspace, forecasting, airfield development, interactive Airport Capital Improvement Plans (ACIP), terminal planning and capacity analysis and FAR Part 150 studies.

## TODD MOHLER, RLA, ISA, IA

*Site Planning and Permitting*

### Education:

BLA / Landscape Architecture /  
Clemson University

### Registrations/Certifications:

RLA / FL / 0001594

ISA Arborist

Certified Landscape Irrigation  
Auditor (CLIA) Irrigation  
Association, 2006

Certified Irrigation Contractor (CIC)  
Irrigation Association, 2006

Certified Golf Irrigation Auditor  
(CGIA) Irrigation Association,  
2007

Certified Irrigation Designer,  
Residential/Golf/Commercial (CID  
R/G/C) Irrigation Association,  
2007

Rain Water Catchment Systems  
Accredited Professional (RCS AP)  
ARCSA, 2008

Certified Arborist International  
Society of Arboriculture (ISA), 2013  
Florida Water Star Accredited  
Professional Certifier (FWS AP)  
SJRWMD 2014

FDOT LAP Design Criteria,  
Specifications & Construction  
Checklist Training Certification  
FDOT Specifications Package  
Preparation Training for  
Consultants

Member of the American Society of  
Landscape Architects

Member of the International Society  
of Arboriculture (ISA)

Professional Member of the  
Irrigation Association (IA)

Professional Member of the  
American Rainwater Catchment  
Systems Association (ARCSA)

EPA Water Sense Partner

Years Experience: 23

Years with KCI: 12

Mr. Mohler is a skilled Registered Landscape Architect (RLA) with a depth of knowledge developed through 23 years of professional experience. His project portfolio ranges broadly between public agency and private development. He has specific project experience in parks, streetscapes, hospitality, PUDs, and commercial development. Professional services on projects frequently include initial data collection and observation, site analysis, concept and design development, and complete site, landscape, and irrigation design including construction oversight and inspection services. Most recently he has been designing, testing, inspecting and managing centrally controlled irrigation systems. These services are focused on water conservation and horticultural services aimed squarely at sustainability of built landscapes. His thorough understanding of water, soils, and plants within the built environment afforded a decade long successful consulting career in the private sector including irrigation water management through advanced technologies like soil moisture sensing, weather stations, and computerized central control systems. Mr. Mohler has presented regularly at State ASLA conventions as well as similar Texas ASLA conventions on the subject of water conservation.

**Doral Boulevard Median Landscape Improvements (HEFT to NW 97 Ave), Doral, FL. *Project Manager/Designer.*** Mr. Mohler provided analysis of existing landscape materials, tree relocation plans, and landscape and irrigation design for the beautification of a commercial corridor. FDOT standards were applied on a County facility.

**Lyons Road, Coconut Creek, FL. *Project Manager.*** Mr. Mohler provided site analysis, streetscape design, and landscape and irrigation design for a two-mile roadway beautification project.

**SR-7 Landscape Beautification Grant, Coconut Creek, FL. *Project Manager.*** Highway Beautification Grant Project located in the City of Coconut Creek along US 441 from Cullum Road to Sawgrass Expressway. Project included tree inventory and evaluation, landscape, irrigation and hardscape design.

**I-95 from South of Cypress Creek Road to South of Atlantic Boulevard, Broward County, FL. *Project Manager/Designer.*** Mr. Mohler provided site analysis, concept development, planting design, irrigation design, utility coordination, and construction documents via digital delivery for a Bold landscape enhancement project focused on the Cypress Creek Road interchange. This project also included ITS, utility, and ODA coordination.

**SR 93/I-75 from South of Miramar Parkway to North of Sheridan Street, Broward County, FL. *Landscape Architect.*** Mr. Mohler provided design services of an establishment irrigation system for a Bold standalone landscape including two major interchanges at Miramar Parkway and Pines Boulevard.

**SR-93/I-75 from North of Pines Blvd to South of Griffin Road, Broward County, FL. *Landscape Architect.*** Mr. Mohler provided design services of an establishment irrigation system for a Bold standalone landscape. The design's concept "Urban Swamp" utilizes a 100% native plant palette to enhance the aesthetic appearance of corridor. The design also provides shade tree along sidewalks to improve pedestrian experience.

**Hillsboro El Rio Park Phase II, Boca Raton, FL. *Project Manager/Designer.*** Mr. Mohler directed the design of a 17-acre park developed on top of an abandoned landfill, including play features, sports courts, shade structures, passive recreation areas, and a non-motorized boat launch. Additionally, Mr. Mohler developed and produced the landscape and irrigation designs.

**Wiles Road, Broward County, FL. *Project Manager.*** Mr. Mohler provided site analysis, streetscape design, and landscape and irrigation design, including coordination with the City of Coconut Creek as the maintaining authority.

**Historic Woodlawn Cemetery, Broward County, FL. *Project Manager/Designer.*** Mr. Mohler directed and designed improvements to an Historic Cemetery including site amenities, hardscape, and landscape and irrigation. Site amenities incorporated were decorative fencing, entrance signage, historical markers, monuments, trash receptacles and benches. Custom construction details, specifications and design concepts accommodated and preserved the historic elements of the site. Post design construction observation services were also provided.

**Sunset Lakes Municipal Complex, Miramar, FL. *Project Manager/Designer.*** Mr. Mohler provided programming, master planning, site planning, planting plan, irrigation design, permitting, construction drawings, and specifications for a 26-acre park/municipal complex design build project.

**Cougar Trail, Coconut Creek, FL. *Project Manager.*** Streetscape and beautification project located in the City of Coconut Creek. Project included tree inventory and evaluation, landscape and irrigation design, and utility coordination.

**Terramar Park, Parkland, FL. *Designer.*** Mr. Mohler directed the redesign of the irrigation system to accommodate two new athletic fields.

**Cypress Preserve Park, Sunrise, FL. *Designer/Inspector.*** Mr. Mohler developed and produced the irrigation design for an eight-acre passive park including upland habitat, wetlands, splash pad and nature paths. Additionally, Mr. Mohler provided post design consulting and construction observation services.

**Districtwide Landscape Architectural Services. *Plan Reviewer.*** Mr. Mohler provided numerous general Miscellaneous Services including landscape plan preparations, streetscapes, tree impacts, inspections, plan review and CADD standard recommendations.

**Lake Worth Major Thoroughfares Design Guidelines, Lake Worth, FL. *Landscape Architect.*** Mr. Mohler created a user-friendly plant palette for each of the City's seven major thoroughfares. This plant palette was incorporated into the Design Guidelines in order to guide thoughtful and context sensitive private development in the City of Lake Worth. The plant palette was based on existing zoning, proposed uses, building height, building setback, right-of-way area, and road characteristics.

**SR-7, Miami Gardens, FL. *Project Manager/Designer, Inspector.*** Mr. Mohler provided landscape impacts coordination for a roadway safety project, including site analysis, landscape material evaluation, tree relocation plans, irrigation plans, and construction documents.

**FPL Headquarters, Palm Beach County, FL. *Designer/Inspector.*** Mr. Mohler provided irrigation design and post design construction observation services for irrigation improvements to a 60-acre parcel to ensure compliance with project plans and goals, including long term project viability and reduction of life cycle costs.

**Tree Inventory and Evaluation, Port St Lucie, FL. *GPS Technician/Inspector.*** Mr. Mohler performed tree inventory and evaluation of nearly 20,000 trees including GIS data collection and integration of the work into the City's existing Tree GIS workstation.



**ROBERT ZUCCARO, PE***Site Planning and Permitting***Education:**

BS / Civil Engineering / Clarkson University

**Registrations/Certifications:**

PE / FL / 17931

Years Experience: 40

Years with KCI: 4

Mr. Zuccaro has 40 years of experience on a wide range of successful engineering projects by providing planning, design, permitting, construction phase services and final certifications. His experience is in land development, transportation and environmental projects. Mr. Zuccaro has extensive experience in site civil infrastructure for new building construction as well as retrofits to support existing building expansions (while maintaining existing utility levels of service) in the Miami-Dade, Broward, Palm Beach and Monroe Counties. Mr. Zuccaro has been a project manager for a wide range of governmental and private sector clients. He has supervised design, planning, platting, surveying, permitting, specifications, contract administration, construction observation, record drawings, final certifications for medical facilities, airports, roadways, water and sewer systems, lift and pump stations, sewage treatment plants and marinas.

**Victoria Park Small Water Main Improvements, Fort Lauderdale, FL. Project Manager.** This project consisted of a 53,000 linear foot upgrade to the City of Fort Lauderdale's existing system. The scope of this work involved existing utility research, plan and profile sheet creation,

permitting, specification preparation, bidding, and construction administration for the installation of new six-inch water mains. The project also involved close collaboration with City officials and residents in the design review process and in the transfer of existing services to new facilities.

**SW 8th Street Sanitary Sewer and Water Main Improvements, Fort Lauderdale, FL. Project Manager.** This project consisted of a 370 linear foot upgrade to the City of Fort Lauderdale's existing system. The scope of this work involved existing utility research, plan and profile sheet creation, permitting, specification preparation, bidding, and construction administration for the installation of a new six-inch water main and eight-inch sanitary sewer main. The project also involved close collaboration with City officials and residents in the design review process and in the transfer of existing services to new facilities

**Lake Ridge and Sunrise Boulevard, Fort Lauderdale, FL. Project Manager.** This project consisted of an underground utility (water main) replacement of 4,200 linear feet of new 8-inch water main for the City of Fort Lauderdale in the center of the westbound lane. KCI fast-tracked the design and permitting to enable the contract to be added to the FDOT milling and resurfacing contract, pending no impact on the FDOT contract amount and completion schedule. Project required expeditious contract negotiations with the FDOT contractor and coordination with the City Manager to place the approval on the City Commission Agenda, otherwise the project would be delayed.

**Port Condo, Large Water Main Replacement, Fort Lauderdale, FL. Project Manager.** This project consisted of an underground utility (water main) upgrading of 1,200 linear feet of new 12-inch water main for the City of Ft. Lauderdale along the highly traveled S. 17 Street Causeway adjacent to the Broward County Performing Arts Center and the Port Everglades Cruiseport. MOT was a major concern as well as maintaining services to commercial users during construction of the new water main. This project required coordination with several new developments along the north R/W including the Renaissance Hotel.

**Utility Undergrounding, Fort Lauderdale, FL. Project Manager.** This project consisted of a \$7.5 million conversion of existing aerial utilities to underground facilities for the City of Fort Lauderdale. The scope of work involved existing utility research, utility design coordination, and consolidated design plans for the conduit installation of existing utility providers including FPL, ATT, and Comcast. Reconfiguration of residential roadway profiles resulted in a need to relocate existing City utilities, including fire hydrants and sanitary sewer lift station equipment. Landscape reconstruction was also a substantial part of this project. The project involved close collaboration with resident HOA representatives, City officials and FPL to facilitate equipment placement and energizing. There was also significant trenching along a very narrow right-of-way in an extremely sensitive neighborhood. Public outreach and communication was a significant concern.

**Turtle Run Civil Engineering, Coral Springs, FL. Project Manager.** Mr. Zuccaro is the current project manager while KCI has served as District Engineer for the Turtle Run Community Development District (TRCDD) for more than 25 years. In the capacity of District Engineer, KCI attends all Board Meeting and coordinates closely with the District management team, Board Members and Council on a variety of projects within the district. KCI reviews engineering permit plans submitted for compliance with District Criteria and best engineering practices and techniques. In addition, KCI has also provided surveying, design, permitting, bidding and negotiation, construction management, and inspection services for various district projects.

**Terramar Park Improvements, Parkland, FL. *Project Manager.*** Mr. Zuccaro was the project manager for the improvements associated with the current multi-use fields. Scope of work included the re-configuring of the existing fields, demolition of an existing baseball field and dugouts/fencing, upgrading the field lighting to current standards, reconfiguring the irrigation system, new fencing, regrading, new sodding and drainage improvements to retrofit the new field layouts. Stormwater permitting was required, submittals through Pine Tree WCD and SFWMD required modifications to existing permits.

**Florida Waves, Pompano Beach, FL. *Project Manager.*** Mr. Zuccaro was the project manager for a proposed project site envisioned to be a surfing facility. The project required stormwater modeling of seven different properties that compose the 63-acre Gold Coast Plat to submit to Broward County-EPGMD and SFWMD to address maximum allowable discharge from the storage lake into the county canal, flooding of North Andrews Avenue and stage storage levels of parking lots, perimeter berms and finished floor elevations for all seven properties within the Gold Coast Plat Master Drainage System. ICPR Version 4 was used to model the system and submit for SWM License Modification.

**El Rio Park, Boca Raton, FL. *Project Manager.*** Mr. Zuccaro was the project manager for the civil design improvements and permitting associated with the new park to be constructed on an old landfill site to include sports courts, playground and picnic areas, pavilions and restrooms, and visitor parking. Due to the site's historic and past uses as a landfill, redevelopment required stormwater permitting through FDEP. ICPR Version 4 was used to model the Master Drainage System. Stormwater permitting submittals through FDEP were required and coordination with ACOE for wetland determination.

**Everglades Holiday Park, Broward County, FL. *Principal-in-Charge.*** The 30 (±) - acre Everglades Holiday Park is Broward County's only gateway to the Everglades. Its heavy use has resulted in some distressed conditions and proposed changes to the area have significant impact on the current operations. Extensive community and agency input was solicited, collected and analyzed to develop a master plan that addresses users' current and future needs, reflects the areas culture, history and heritage, is sensitive to areas ecology; and tells the full story of the Everglades. Led the Public Participation Workshops to obtain input from a wide range of stakeholders.

**Broward County, Vista View Regional Park Expansion, Davie, FL. *Project Manager.*** Some of the main features of the 64-acre park expansion are a major Universal Access Playground, equestrian trails, accessible fishing and boating docks, park administration offices, park maintenance facilities, park gatehouse, picnic areas with shelters, multi-purpose trails, interpretive nature signage, horse corral, and native plantings to transform the former landfill site into a functioning ecological condition - providing habitat for native wildlife and a place for active recreation and passive revitalization for people. Completed the design and permitting of the park expansion, adjacent to the environmentally sensitive old Davie Landfill, with negligible impacts on costs and schedule.

**Vista View Regional Park Expansion, Davie, FL. *Project Manager.*** Some of the main features of the 64-acre park expansion are: a major Universal Access Playground; equestrian trails; accessible fishing and boating docks; park administration offices; park maintenance facilities; park gatehouse; picnic areas with shelters; multi-purpose trails; interpretive nature signage; horse corral; and native plantings to transform the former landfill site into a functioning ecological condition - providing habitat for native wildlife and a place for active recreation and passive revitalization for people. Completed the design and permitting of the park expansion, adjacent to the environmentally sensitive old Davie Landfill, with negligible impacts on costs and schedule.

**Krome Avenue Street Renovations and Streetscape Improvements, Homestead, FL. *Project Manager.*** Mr. Zuccaro was the project manager for roadway milling and resurfacing of Krome Avenue in the heart of Old Downtown Homestead. The project limits were from Mowry Street north to Campbell Drive approximately 2,600LF. The scope of work also included addition of brick sidewalks, planters, and streetscape improvements between the business storefronts and the back of curb, and floral colored stamped concrete in the street pavement at several mid-block locations. A unique drainage design with inverted sidewalk areas was implemented to relieve storefronts experiencing flooding during extreme rainfall events. The scope of work involved paving, grading and drainage, and pavement marking plans, as well as permitting and construction phase services and final certification.



# LACHERYL FITZPATRICK

PROJECT MANAGER / TEAM LEAD

## YEARS OF EXPERIENCE

30

## YEARS WITH GSI

16

## EDUCATION

B.S., Civil Engineering  
University of Texas

Certified Charrette Planner

## BIO

LaCheryl offers seasoned experience working on marquis local and national projects for GSI clients to include Skanska, AECOM and HKS. Promoted from within, she is a certified Charrette Planner, has been a key member of GSI's organization for over 5 years and is an integral member of the firm's leadership team.

LaCheryl is efficient in working with project management teams to develop and implement strategies designed to increase diverse, local business & workforce participation. She has led Project Administrative staff on project sites, trained staff in the establishment of document control procedures and implementation of Federal DBE programs to ensure compliance.

## WHY LACHERYL?

- 28+ years experience on large-scale outreach projects
- Focused on training, developing, and event planning
- An original member of Garth Solutions, Inc.
- Strengths in public outreach, communications, and vendor diversity

## REPRESENTATIVE EXPERIENCE

**City of St. Petersburg | St. Petersburg, FL**  
MLB Tampa Bay Rays Tropicana Field Master Planning

**Fort Lauderdale Airport | Fort Lauderdale, FL**  
New Runway and Terminal 4 Expansion

**City of Naples Airport Authority | City of Naples**  
Noise Planning Study

**Broward County Convention Center | Fort Lauderdale, FL**  
Expansion Master Plan Study

**School Board of Broward County | Fort Lauderdale, FL**  
\$800 million SMART Bond Program

**SoLe Mia Local Preference Office | North Miami, FL**  
185-Acre Mixed Use Development

**Fort Lauderdale Airport | Fort Lauderdale, FL**  
Part 150 Noise Compatibility Planning Study

**Nemours Children's Hospital | Orlando, FL**  
New 160-Bed Pediatric Hospital





# YVONNE GARTH

**PROGRAM DIRECTOR / PRINCIPAL**

## YEARS OF EXPERIENCE

26

## YEARS WITH GSI

16

## EDUCATION

B.S., Journalism and Marketing  
University of Maryland  
Certified Charrette Planner

## WHY YVONNE?

- Current Contacts in EVERY municipality in Broward County
- Led three Broward Health outreach programs for capital projects
- Trusted Strategic & Communications Expert with over 26 years of experience with high profile clients
- Runs Local Preference Office with grassroots outreach for \$4 billion SoLe Mia in North Miami
- Leads Broward Schools \$800m bond communications and outreach

## BIO

Yvonne is President & CEO of Garth Solutions, Inc. (GSI) and is respected throughout the construction and engineering community for providing diverse services to national, local, private and public entities in all aspects of business development, marketing, advertising, public relations, economic development, outreach, diversity consulting, and more.

Yvonne also served as Chair and Board Member for the Broward County Small Business Advisory Board, and as a Board Member to the Miramar Cultural Arts Trust. As a proven advocate for the communities in which she works, she earned the distinction as one of the Diversity Plus Magazine's national "Woman of Power" in 2009 and is featured in many trade and local South Florida newspapers. More recently, Yvonne was formerly recognized by Legacy Broward as one of the 50 most influential African-American business leaders in Broward County, Florida in 2014.

## REPRESENTATIVE EXPERIENCE

**City of St. Petersburg | St. Petersburg, FL**  
St. Pete Vision 2050

**Fort Lauderdale Airport | Fort Lauderdale, FL**  
New Runway and Terminal 4 Expansion

**City of Naples Airport Authority | City of Naples**  
Noise Planning Study

**Broward County Convention Center | Fort Lauderdale, FL**  
Expansion Master Plan Study

**School Board of Broward County | Fort Lauderdale, FL**  
\$800 million SMART Bond Program

**SoLe Mia Local Preference Office | North Miami, FL** 185-Acre Mixed Use Development

**Fort Lauderdale Airport | Fort Lauderdale, FL**  
Part 150 Noise Compatibility Planning Study





# NATALIE PALOMINO

## PROJECT COORDINATOR

### YEARS OF EXPERIENCE

3

### YEARS WITH GSI

2.5

### EDUCATION

B.S., World Politics and Diplomacy  
University of Richmond

Certified Charrette Planner

### WHY NATALIE?

- Experienced in understanding stakeholder dynamics and goals
- Implements effective communications strategies
- Experienced in media engagement and writing press releases

### BIO

As a member of the Garth Solutions team, Natalie is responsible for understanding stakeholder dynamics and goals while making sure the needs of her clients are met and their voices heard.

Natalie's toolkit of effective communications strategies cross a variety of mediums from surveying residents and gathering stakeholder input, to social media engagement and writing press releases.

In addition to planning, Natalie collaborates with a range of outreach specialists and technical experts to successfully execute community assessments, public workshops, and stakeholder meetings.

Natalie brings multi-faceted experience and lessons-learned from past roles in Public Relations and Communications efforts for organizations such as the Virginia Hispanic Chamber of Commerce and Norwegian Chamber of Commerce. She holds a Bachelor of Science in World Politics and Diplomacy from the University of Richmond.

### REPRESENTATIVE EXPERIENCE

**Las Olas Beach Park Project | Fort Lauderdale, FL**  
\$49 million Las Olas Corridor Improvements

**Fort Lauderdale Airport | Fort Lauderdale, FL**  
Master Plan Study

**Fort Lauderdale Airport | Fort Lauderdale, FL**  
Part 150 Noise Compatibility Planning Study

**Fort Lauderdale Airport | Fort Lauderdale, FL**  
New Runway & Terminal 4 Expansion



# JENNIFER DERMODY

Aviation Planning Manager/Director



**Office Location:** Arlington, Virginia  
**Experience:** 25 years  
**Contact:** [jennifer.dermody@jacobsendaniels.com](mailto:jennifer.dermody@jacobsendaniels.com)  
**Education:** Master of Arts (MA), Geography, University at Albany  
Bachelor of Science (BS), Geography, Penn State University  
**Memberships:** AAAE, Standing Member -Transportation Research Board Airfield and Airspace Capacity and Delay Committee, ACI-NA Operations and Technical Affairs Committee

Ms. Dermody has over 25 years' experience in a variety of airport planning services for general aviation and commercial service airports. Ms. Dermody has extensive knowledge of FAA standards and guidelines and was previously responsible for reviewing capital improvement plans (CIP), AIP grant applications, Airport Layout Plans (ALP), and airport master plans as a planner for the FAA New York Airports District Office. In addition, she served as the FAA Eastern Region Airports Division Planning Team Leader.

Prior to joining the Jacobsen|Daniels team, Ms. Dermody was a planner at the Metropolitan Washington Airports Authority and was responsible for preparing the CIPs for Washington Dulles International and Ronald Reagan Washington National Airports. Her responsibilities also included updating the ALPs, addressing modification of standards, and submitting airspace cases to the FAA for review.

## RELEVANT EXPERIENCE

### WASHINGTON DULLES INT. AIRPORT

#### *Aircraft Noise Contour Map Update*

- Project manager for Aircraft Noise Contour Map Update

#### *Airport Layout Plan (ALP)*

- Project manager for ALP Update
- Responsible for all pen-and-ink changes and Modification of Design Standards (MOS)

#### *Cargo/Revenue Generating Development Alternative Layouts*

- Supported the Airports Authority Office of Real Estate by providing alternatives/layouts for air cargo and other revenue-generating development

#### *Obstruction Analysis*

- Prepared and submitted Obstacle Action Plan (OAP)
- Identified priorities for scope of work (SOW) for obstruction removal/mitigation

### RONALD REAGAN WASHINGTON NATIONAL AIRPORT | *Airfield Geometry Study*

- Project Manager - worked with operations, airlines, ATCT and FAA ADO to address nonstandard taxiway geometry including hot spots and a Runway Incursion Mitigation (RIM) location
- Managed Project Definition Documents (PDD) to identify design issues, environmental permitting requirements and provide a detailed cost estimate

#### *Safety Risk Management (SRM) Panels*

- Led two SRM panels to support the new concourse

#### *Deicing Study*

- Managed project to identify deicing requirements, locations, and layout for consolidated deicing facilities
- Managed PDD to identify design issues, permitting requirements and provide a detailed cost estimate

#### *South Area Development Plan*

- Managed project to identify space requirements and blocking diagrams for new engineering/maintenance shops and warehouse
- Led alternative analysis for airside and landside facilities at the south end of the airport
- Developed short-, medium-, and long-term plans for development of south area

### FEDERAL AVIATION ADMINISTRATION

#### *Formulation of NPIAS and ACIP Order 5090.5*

#### *Developed FAA Training Modules*

- Lead development of training modules for FAA and State Block Grant staff for new order.
- Compare training to the Airport Improvement Program (AIP) handbook for consistency
- Develop quiz questions to test knowledge of FAA and state block grant staff.

### NORTHEAST CORRIDOR NEXTGEN INTEGRATED WORKING GROUP

#### *Airport Subgroup Lead*

- Coordinated with FAA and industry regarding NextGen solutions for Northeast Corridor

# SARAH HAMOUI

## Sustainability Specialist



**Office Location:** Atlanta, GA  
**Experience:** 4.5 Years  
**Email:** [sarah.hamoui@jacobsendaniels.com](mailto:sarah.hamoui@jacobsendaniels.com)  
**Education:** BS Environmental Science, University of Central Florida  
**Licenses/Certifications:** LEED AP BD+C, ENV SP, EcoDistricts AP, Parksmart Advisor  
**Memberships:** Southface, USGBC Georgia

Ms. Hamoui has worked as a consultant for some of the largest entities in the Southern United States, including Hartsfield Jackson Atlanta International Airport (ATL), Orlando International Airport (MCO), Dallas/Fort Worth International Airport (DFW), and Orange County Convention Center. Ms. Hamoui has acted as a subject matter expert, advising clients on how to achieve their desired sustainability goals within their current budget, operational capacity, and stakeholder commitments. In many cases, Ms. Hamoui has been responsible for the direct implementation of client sustainability programs, including Zero Waste initiatives. Ms. Hamoui's work includes the management and development of sustainability plans and scorecards that measure environmental performance. Additionally, Ms. Hamoui successfully administered six Leadership in Energy and Environmental Design (LEED) projects for both aviation and private clients. In addition to her experience, Ms. Hamoui has a solid educational foundation and a passion for sustainability, innovation, and reversing the impacts of global climate change. She has collaborated with industry professionals, including the United States Green Building Council (USGBC), to develop an airport-specific LEED rating system and to share industry best practices. At Jacobsen|Daniels, Ms. Hamoui provides project management support to ATL for various waste minimization activities to assist in achieving a goal of Zero Waste. She also provides support to assist with LEED Certification, EcoDistrict Certification, solar photovoltaic panel feasibility analyses, and energy analyses. Ms. Hamoui also manages Envision certification efforts and sustainability construction tracking for projects with Detroit Metropolitan Wayne County Airport (DTW). Ms. Hamoui is working to co-facilitate and manage a waste stakeholder engagement meeting for Philadelphia International Airport (PHL). The purpose of this meeting is to discuss challenges and solutions to increase PHL's waste diversion. Further, Ms. Hamoui is currently engaged in work for the Federal Aviation Authority (FAA).

### RELEVANT EXPERIENCE

#### **HARTSFIELD-JACKSON ATLANTA INTERNATIONAL AIRPORT, ATLANTA, GA**

*Facilities Asset Management/Sustainability On-Call Services*

Sustainability Specialist

January 2018 - Present

Jacobsen|Daniels is providing Facilities Asset Management and Sustainability on-call services to ATL. The team is helping ATL quantify the total cost of ownership of assets, their condition and their ability to be resilient in an environment that supports sustainable solutions and innovation.

- Provided project management and client coordination.
- Provided task support, technical writing, and research and development.
- Provided third-party certification administration.
- Provided quality control for task deliverables.

Projects include:

- Ramp and Aircraft Recycling Assessment and Cargo Waste Characterization
- Airport-Wide Solar Assessment
- 100% Clean Energy Plan
- EcoDistrict Certification
- LEED EBOM Gap Analysis
- Annual Sustainability Report Update

- Airport Wide Energy Audit (ASHRAE Level II)
- Airport Employee Ride Options Transportation Support
- Compressed Natural Gas (CNG) and Electric Vehicle (EV) Charging Station Research and Development

#### **ORLANDO INTERNATIONAL AIRPORT, ORLANDO, FL**

*Continuing Sustainability Services, Sustainability Management Plan Services, & South Terminal Complex Expansion Phase I*

Sustainability Specialist

May 2015 - September 2018

Managed the development of sustainability management plans, roadmaps, policies, and programs. Assisted with Leadership in Energy and Environmental Design (LEED) certification and Green Building Certification Institute (GBCI) Coordination. Assisted with construction submittal processing.

Projects Include:

- LEED for Existing Buildings, Operations + Maintenance version 4 Certification (multiple facilities) and Gap Analysis of the North Terminal
- LEED for Building Design and New Construction version 4 Certification of the South Terminal Complex Expansion Phase I
- Sustainability Management Plan and Zero Waste Roadmap Development

## COMPLETE PROJECT EXPERIENCE:

### MEMPHIS INTERNATIONAL AIRPORT, TN

*Sustainability Specialist, December 2019 – Current*

- Review of Sustainability Plan

### SACRAMENTO INTERNATIONAL AIRPORT, CA

*Sustainability Specialist, November 2019 – Current*

- Assist in Development of Master Plan Inventory

### PHILADELPHIA INTERNATIONAL AIRPORT, PA

*Sustainability Specialist, July 2019 – Current*

- Waste Stakeholder Engagement and Facilitation
- Preparation of Airport Best Practices for Waste Management

### FEDERAL AVIATION AUTHORITY

*Sustainability Specialist, May 2019 – Current*

- Project Details Classified

### DETROIT METROPOLITAN WAYNE COUNTY AIRPORT, MI

*Sustainability Specialist, February 2019 – November 2019*

- Reconstruction of Runway 3L-21R & Associated Taxiways
  - Sustainability Construction Tracking to include Water Usage, Construction and Demolition Waste Diversion, and Regional Materials
  - Envision Certification Administration – Project successfully achieved Envision Gold certification
- North Terminal Gates and Apron Expansion
  - Waste Diversion Tracking and Reporting
  - Submittal Review
  - Energy Efficiency Rebate Documentation

### CHICAGO O'HARE INTERNATIONAL AIRPORT, IL

*Sustainability Specialist, October 2019 - Current*

- Preliminary Envision Certification Application Review

### DALLAS/FORT WORTH INTERNATIONAL AIRPORT, DALLAS, TX

*Sustainability Specialist, July 2017 – September 2018*

- Waste Minimization and Diversion Optimization Phase I
- Waste Minimization and Diversion Optimization Phase II
- Development of Roadmap for Zero Waste

### ORANGE COUNTY CONVENTION CENTER, FL

*Sustainability Specialist, December 2017-September 2018*

- Sustainable Sites, Materials and Resources, and Indoor Environmental Quality Credit Categories Lead and Credit Development
- Policy and Procedure Review and Update
- GBCI Coordination
- Environmental Management System (EMS) Review and Policy Update to New Standard
- Facilitation of EMS Meetings
- Internal and External Audit Support
- Documentation of Environmental-related Communication
- Recertification Efforts

### SESCO LIGHTING, INC., FL

*Sustainability Specialist/LEED Project Administrator, August 2017 – December 2018*

- LEED Project Administration and GBCI
- Task Lead for All Credit Categories
- Credit Development
- Subcontractor Coordination
- Development of Green-Building Educational program
- Development of Ergonomics Program
- ENERGY STAR Portfolio Manager Certification

### UNIVERSITY OF CENTRAL FLORIDA, FL

*Industrial Hygiene Assistant, April 2016 – May 2017*

- Collection, Testing, and Analysis of Indoor Air Quality Samples
- Conducted Facility Condition Audits
- Conducted Industrial Health Assessments to include Ergonomic Evaluations, Noise Assessments, Safety Analyses, and Hazard Identification

### TOSOHATCHEE WILDLIFE MANAGEMENT AREA, FL

*Student Field Intern, July 2015 – November 2015*

- Environmental Land Management
- Invasive Plant Species Identification and Removal
- Geographic Information System (GIS) Mapping

### ORLANDO WETLANDS PARK, FL

*Student Field Intern, July 2015 – November 2015*

- Water Quality Sample Collection and Analysis
- Wetland Health Quality Inspection
- Education and Outreach





**MICHELLE DIFFENDERFER**  
President/Shareholder

561.640.0820 | [mdiffenderfer@llw-law.com](mailto:mdiffenderfer@llw-law.com) | 515 N. Flagler Drive, Suite 1500 | West Palm Beach, FL 33401

Mrs. Diffenderfer assists landowners, businesses and governments with local, state and federal, environmental, natural resource and land development legal requirements. Michelle helps clients navigate these laws and regulations in the permitting of their land development and infrastructure projects.

#### AREAS OF PRACTICE

- Represents the Seminole Tribe of Florida as special environmental counsel, including land development, water rights and cultural resource issues.
- Gains permitting and approvals for private development and public infrastructure projects involving complex issues related to wetlands, mitigation, threatened and endangered species, water quality, and drainage.
- Represents landowners and governments in the review, preparation and comment on Environmental Assessments and Environmental Impact Statements pursuant to the National Environmental Policy Act.
- Represents landowners and governments in the development, implementation and interpretation of Water Supply Policy, Plans, and Regulations.
- Represents clients in due diligence, permitting and compliance issues with the South Florida Water Management District, Department of Environmental Protection, U.S. Army Corps of Engineers, Environmental Protection Agency (EPA), the U.S. Fish and Wildlife Service (FWS) and the National Marine Fisheries Service (NMFS).
- Represents clients in the development of Biological Opinions, Habitat Conservation Plans and in the issuance of Incidental Take Permits and related consultation with the United States Fish and Wildlife Service (FWS), the National Marine Fisheries Service (NMFS) and the Florida Fish and Wildlife Conservation Commission (FWC).

#### PRACTICES

Environmental and Natural Resources Law  
Land Use and Real Estate Law  
Governmental Law  
Native American Law

#### INDUSTRIES

Real Estate Development  
Transportation and Infrastructure  
Utilities

#### EDUCATION

J.D., cum laude, University of Miami, School of Law, 1994  
B.A., with honors, Brown University, 1990



## PROFESSIONAL, CIVIC AND COMMUNITY INVOLVEMENT

- American Bar Association, Section of Environment, Energy and Resources, Vice Chair  
American College of Environmental Lawyers, Membership Co-Chair, Region IV
- Leadership Florida, Class of XXXIII
- The Episcopal Church of Bethesda by the Sea, Vestry
- American Bar Foundation, Fellow
- United Way, Women's Leadership Council
- Girls II Women, Inc., Past Chair
- Chamber of Commerce of the Palm Beaches, Past Chair
- The Florida Bar, Environmental and Land Use Law Section, Past Chair
- Leadership Palm Beach County, Class of 2000
- Legal Aid Society of Palm Beach County
- Executive Women of the Palm Beaches
- Florida Association of Environmental Professionals
- Palm Beach County Bar Association
- Caribbean Bar Association

## AWARDS AND RECOGNITIONS

- Martindale Hubbell AV<sup>®</sup> Preeminent™ Peer Review Rated
- Florida Super Lawyer, 2010-present
- South Florida Legal Guide, Top Lawyer in Environmental Law, 2017-2018
- The Florida Bar Environmental and Land Use Law Section, Bill Sadowski Memorial Outstanding Service Award, 2019
- The Florida Commission on the Status of Women, Florida Achievement Award, 2016
- Families First of Palm Beach County, Harriet Goldstein Award, 2015
- EmpowHER of the Palm Beaches, Palm Beach County's Woman of Corporate Power, 2015
- The University of Miami School of Law Alumni Achievement Award, 2014
- The Palm Beacher Magazine, Women in Power, 2014
- The Caribbean-American Democratic Club of Palm Beach County, Community Change Maker Award for Environmental Advocacy, 2013
- Business Leader Magazine's Women Extraordinaire Award, 2011
- The International Who's Who of Environmental Lawyers, 2009-2012; 2014-2015; 2019
- Florida Trend Magazine's Legal Elite, Environmental and Land Use Law, 2011
- The Chamber of Commerce of the Palm Beaches ATHENA<sup>®</sup> Award, 2008



**ROBERT P. DIFFENDERFER**  
shareholder

561.640.0820 | [rdiffenderfer@llw-law.com](mailto:rdiffenderfer@llw-law.com) | 515 N. Flagler Drive, Suite 1500 | West Palm Beach, FL 33401

Mr. Diffenderfer maintains a diverse governmental practice involving complex environmental and land use matters, including representation before local, state and federal legislative and regulatory bodies.

#### AREAS OF PRACTICE

- Chair of the firm's transportation and infrastructure industry group for major public infrastructure projects, including highway, port and airport planning and permitting and Development of Regional Impact (DRI) review.
- Represents private and public clients, counseling on growth management issues and obtaining comprehensive plan and zoning approvals; defends those approvals from third party challenge.
- Represents special districts on a variety of organizational and operational issues and special projects.
- Successfully represented state university interests in obtaining legislation to authorize the transfer of land from the Trustees of the Internal Improvement Trust Fund to the university's foundation.
- Has handled a variety of growth management, land use and regulatory issues for large public infrastructure projects and various Florida Department of Transportation highway projects, including:
  - Fort Lauderdale-Hollywood International Airport
  - Palm Beach International Airport
  - North Palm Beach County General Aviation Airport
  - Port of Fort Pierce
  - Port of Panama City
  - Panama City Airport

#### CHAIR

Transportation and Infrastructure  
Industry Group

#### PRACTICES

Environmental and Natural Resources  
Law

Land Use and Real Estate Law

Administrative, Civil and Appellate  
Litigation

Governmental Law

#### INDUSTRIES

Transportation and Infrastructure

#### EDUCATION

J.D., Georgetown University Law Center,  
1984

B.A., cum laude, Florida State University,  
1980

#### ADMISSIONS

Admitted to the U.S. District Court for  
the District of Columbia

Admitted to the U.S. District Courts for  
the Southern and Middle Districts,  
Florida

## PROFESSIONAL, CIVIC AND COMMUNITY INVOLVEMENT

- Martindale Hubbell AV<sup>®</sup> Preeminent™ Peer Review Rated.
- Pine Jog Environmental Education Center, Past Board Member and Chair.
- Chamber of Commerce of the Palm Beaches, General Counsel and Executive Committee.
- The Church of Bethesda-by-the-Sea, Chancellor.
- Florida Democratic Party Legislative Liaison Committee, Member.
- The Forum Club of the Palm Beaches, Board Member
- The Florida Bar: Environmental and Land Use Law Section, Administrative Law Section and City, County and Local Government Law Section, Member.
- Palm Beach and Collier County Bar Associations, Member.
- American Bar Association: Section of Environment, Energy and Resources and State and Local Government Law Section, Member.
- Appointee: 2000 Presidential Rank Review Board.
- Naples Regional Urban Design Assistance Team (R/UDAT) Citizen's Task Force, Committee on Environmental Issues, Member, 1987-1988.
- Listed in Who's Who Legal, Environmental Law, 2010, 2013, 2015.
- Listed in Chambers & Partners USA Guide, an annual listing of the leading lawyers and law firms in the world, 2008-2015.
- Florida Super Lawyer, 2008.

## PRESENTATIONS AND PUBLICATIONS

- "Numeric Nutrient Criteria in Region 4: Current Progress and Remaining Challenges," presented at the American Bar Association Key Environmental Issues in U.S. Environmental Protection Agency Region 4, March 2015.
- "Cleared for Takeoff: Insights on Economic Development and Land Use Compatibility at Airports," presented at the Florida Planning and Zoning Association Conference, June 2014.
- "Accelerated Wetlands Losses in Coastal Watersheds," Journal of American Water Works Association, April 2014.
- "Elimination, Reduction, and Minimization of Impacts," Florida Environmental and Land Use Law Treatise, June 2013.
- "The FAA Begins a New Chapter in Hazardous Wildlife Management," Florida Aviation Business Magazine, July 2013.
- "Where Water and Energy Meet," Journal AWWA, May 2013.
- "Secondary and Cumulative Impacts Analysis and the Clean Water Act," Journal AWWA, July 2012.
- "Numeric Nutrient Criteria for Florida," presented at the Local Government Law in Florida Conference, May 2012.
- "Environmental Issues Facing Florida's Local Government," webinar presented to the Florida City and County Management Association, November 2011.
- "Airport-Community-Environment-Noise Mitigation and More," presented at the Florida Airports Council Conference, July 2011.
- "Top Ten Tips for Quasi-Judicial Hearings," presented at What You Need to Know about Public Records and Open Meetings in Florida, August 2003.
- "Latest Developments and Issues Relating to Florida's Public Records Law," 2003.
- "The Freedom of Information Act 5.U.S.C. 552, as Amended by Public Law No, 104-231, 110 Stat. 3028," 2003.
- "Top Ten Tips for a Quasi-Judicial Hearing," the Florida Bar Environmental and Land Use Law Section Reporter, Vol. XIX, No. 5, July 1998.

In 2018, passenger  
traffic at FLL  
increased more than **55%**,

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from  
**22,412,627**  
in 2010  
to  
**35,963,370**  
in 2018



# 2

## Project Approach

## Section 2

# Project Approach

### Prime Firm's Approach to the Project

Airports manage many challenges in the execution of their mission including funding constraints, compliance with a myriad of regulations, maintenance of safety, and operational considerations; all while striving to maintain a positive public image and encourage economic growth. Our proven on-call services/program management approach serves as a tool for an airport to address these issues in a proactive and organized fashion maximizing the potential for project success.

ESA's goal is to meet the requirements and exceed the expectations of our clients while working seamlessly as effective and highly productive extension of their internal team. By design, a continuing services contract requires varying levels of effort from key staff members at different times during the contract period with the ability to quickly mobilize additional resources as needed. The ESA Team commits to providing the time and attention of each key staff member identified in our organizational chart. Backed by a staff of more than 500 specialists, ESA has the local resources and national expertise to strategically assign the appropriate staff to each task, even when there are multiple, similar task orders.

The relationship of a continuing services consultant and the client Project Manager should be that of partners who communicate often, share a common understanding, and work together seamlessly. The ESA team has demonstrated our ability to work seamlessly with BCAD through our recent and ongoing leadership on projects including the FLL Part 150 Noise and Land Use Compatibility Study, and the FLL and HWO Airport MPUs. We not only understand all aspects and details of these programs better than anyone else, we also understand the subtleties and challenges including stakeholder concerns and potential downstream implication of any changes. This knowledge and understanding will be fully integrated into our programmatic approach to the project.

ESA will provide BCAD with a team of trusted airport environmental experts with similar experience throughout Florida and nationally who will both help organize and guide BCAD's environmental program and provide excellent service on a moment's notice. We are prepared to bring our skills and experience, as well as strategic thinking to BCAD to anticipate issues and requirements, and to be responsive and willing to adapt to the evolving needs of your organization. As your partner we will share our strategic thinking and innovative strategies, and BCAD will capitalize on our relationships and experience. With our extensive current experience in providing on-call consulting services to more than 60 airports including many of the largest and most complex in the world, we have learned that the qualities of being a good partner with our clients is framed around the need to dedicate a strong Project Manager and surround that person with the resources and support required to provide the client with responsive services at a moment's notice. Our Project Management team was designed for this contract focusing on this ideal.

## Management Team

The team will be led by Mike Arnold, Project Director, and Julie Sullivan who will serve as ESA's Project Manager. As Project Manager, Ms. Sullivan will serve as the primary point of contact for airport management and will manage all task leaders, holding all team members to ESA's high standards of performance. Each of the technical leads will manage their respective project elements, and the individuals assigned to the different tasks, while maintaining constant communication with Ms. Sullivan to ensure all elements are being conducted in accordance with the overall project plan. As Project Manager, Ms. Sullivan will actively manage these concurrent efforts, ensuring the overall project process, budget, and deliverables are met. Once a task order lead has been assigned from the ESA Team, that task order lead will maintain overall responsibility for project quality, schedule, and budget, and will communicate directly with Ms. Sullivan. This maximizes the efficiency of our communication with BCAD and focuses ESA's expertise at the overall project level. As Project Director, Mr. Arnold will serve as quality assurance/quality control (QA/QC) manager and will ensure that each deliverable meets the standards set and conform with each task's scope. Because of the range and complexity of potential projects that may be included during the course of these service, ESA has selected a Project Manager and Project Director who can both ensure that the resources of the firm are fully committed, as well as bring their broad experience and technical expertise to meet the goals and objectives of BCAD.

## Task Definition/Scoping

Our approach to on-call services begins well before project scoping. We will use our extensive knowledge of BCAD's airport master plans and FLL Part 150 study to develop a comprehensive approach to addressing environmental and noise issues consistent with the CIP's for each airport. We will also use our national airport on-call experience at similar highly complex airports and airport systems to work with BCAD to identify emerging issues and help proactively outline a strategy for resolution. ESA will assist with the scoping phase and work with BCAD to solidify a project-specific strategy.

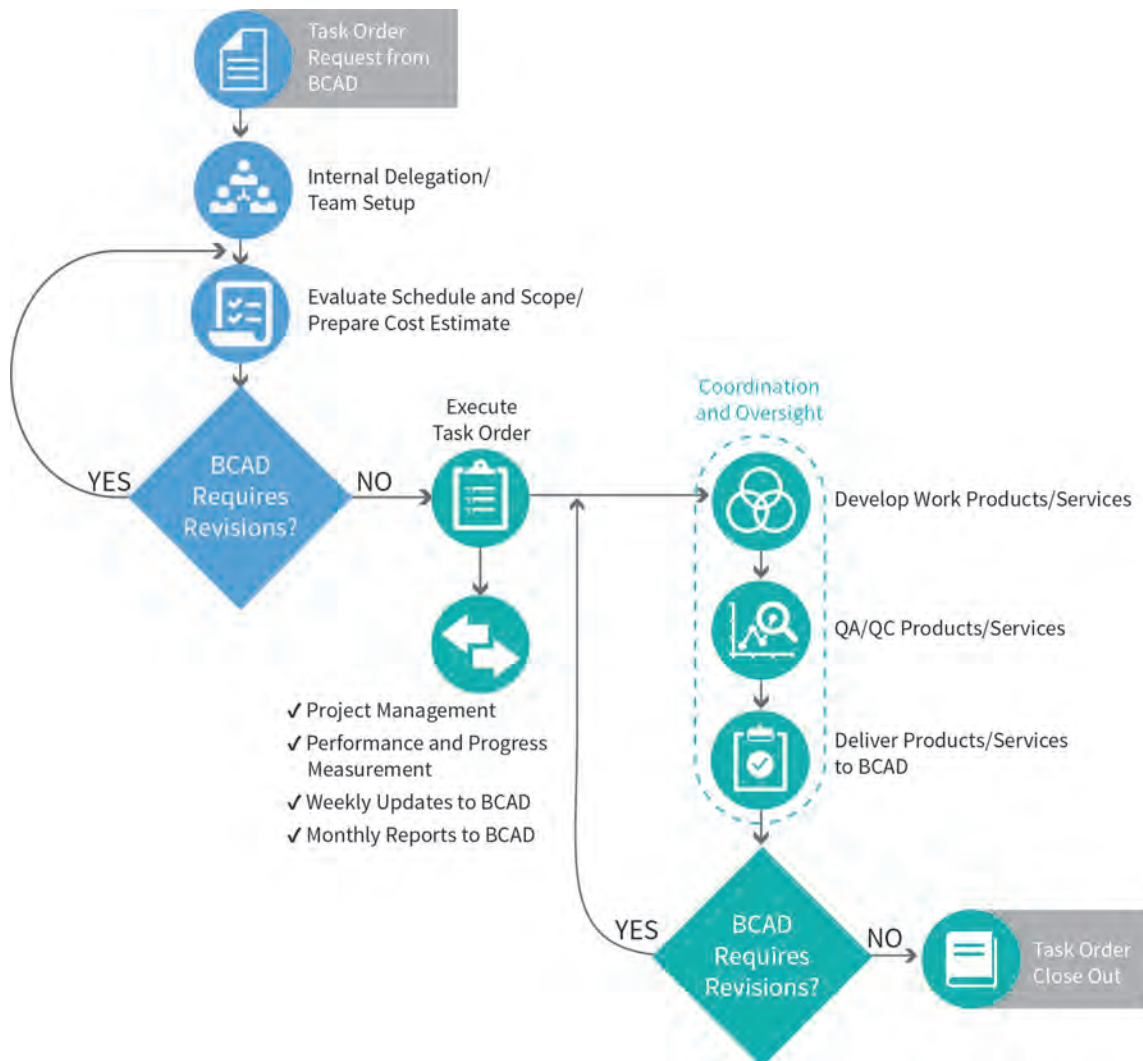
Our collaborative scoping process helps ensure that key issues are identified early, that elements that would clearly not be affected do not consume time and effort, and that the approach is balanced and thorough. We will identify data gaps and resource constraints and determine what technical reviews, surveys or additional information is required to meet the project need. We will also identify areas of project or schedule risk and identify options to mitigate.

## Project Work Plan

Once the goals and objectives of each task order are understood, ESA will establish the proper work sequencing to maximize the efficiency of the analysis and documentation efforts. To accomplish this, ESA will identify the critical path for each task order and the relevant prerequisites to move task orders along efficiently. We will work to minimize time by taking a careful look at tasks that could be done in parallel or at the very least could overlap rather than having to be in sequence. Types of work that could require such efforts include where the subject matter is both complex and has complicated agency review and approval requirements.

For larger tasks, ESA will develop project work plans. These work plans will detail key staff, milestones, communication protocols, documentation protocols, and a quality control plan. ESA's Project Manager will develop each assignment work plan after in-depth consultation with appropriate BCAD staff to clearly define the goals and objectives of the assignment and ensure the appropriate project team members are designated.

Because each assignment is unique, a clear understanding of the goals and objectives is critical for gathering historical and first-hand information and determining elements of the project specific work plan. Each major work plan will include a conceptual project flow diagram that outlines how the individual project elements fit into the overall project. ESA finds that a clear understanding of the overall project by all stakeholders is critical to project success.



### Innovation and Cost Effectiveness

Our Project Managers employ the experience, discipline, and attention to detail necessary to ensure all project cost and schedule targets are met. Our in-house accounting technology (Deltek) provides our Project Managers access to an array of custom project reports to track project labor and other expenditures and allow a clear understanding of project status. There are opportunities for cost control through efficiency throughout the project and we will strive to maximize those opportunities. We are on-call to more than 60 airports and have completed more than 20 environmental documents in the past 24 months through the Orlando ADO. The sheer volume of environmental documents we complete requires a streamlined process to develop the highest quality documents within the required schedule and budget.

### Schedule and Progress Reporting

At ESA, we implement a policy of reviewing our current workload thoroughly before proposing on new projects. We will “No Go” a project if we do not have the resources to dedicate or time to meet a client’s project schedule. The fact that we are submitting qualifications for this project is our commitment to BCAD that we have the resources and capacity to take on and successfully support its day-to-day needs.

Delivery of on-schedule and on-budget projects is central to ESA’s approach. We employ detailed scopes of work and project schedules using Microsoft Project, to ensure to the greatest extent practical that potential project-delaying issues are accounted for and avoided throughout the life of the project. Schedule summaries will be prepared in graphical format as required to convey overall project progress.



Progress reports will be provided with each invoice summarizing the work completed during the previous 30-day reporting period. A 30- and 60-day look ahead will be provided along with key issues with the potential to affect project delivery. A standing monthly coordination call will be scheduled to review this information. In advance of these meetings a project milestone summary table will be provided for each project to allow tracking of critical project deliverables and review target delivery dates. If unexpected issues are identified during the course of project implementation that have the potential to affect project schedule, the project team will bring them to the attention of BCAD immediately along with alternatives for resolution.

### **Quality Control**

ESA's commitment to quality consists of two main components: quality control and quality assurance, which work in tandem to ensure that all work products and deliverables are of the highest overall quality. ESA's Project Manager, Ms. Sullivan, will oversee project budgets and timelines, project progress, and, if necessary, assist with project issues and contingency plans to get tasks back on track. She will ensure that all outgoing documents and reports meet ESA's stringent QA/QC procedure and corporate requirements and assure that all subconsultants are held to the same standard. The QA/QC manager for this project is Mr. Arnold. He will review project deliverables for clarity, accuracy, consistency, and complete scope compliance to ensure that all project deliverables are technically sound and consistent with project goals and objectives. Assigning a QA/QC Manager who is not a principal author is a critical step to assure all deliverables are reviewed from an objective "reader" perspective. We have successfully completed a myriad of similar projects using this QA/QC process including assignments for BCAD, and we are confident we can meet all of BCAD's expectations relative to product quality and schedule.

### **Task Closeout**

Upon completion of every task, a task closeout checklist will be completed. This checklist will ensure that all elements of the task are complete and that all work products are delivered. ESA will assist with preparation of grant closeout paperwork if appropriate. During the closeout process, all GIS data will also be provided electronically for integration into BCAD's GIS database. Additionally, our monthly status reports and master project schedule will be updated to reflect the status of the task.

### **Communications**

ESA believes that clear communication is critical to successfully deliver projects. We share that commitment to open and robust communication between the ESA Team and BCAD and understand that begins with our proposed Project Manager. Our communication style is tailored to the stage of the project: during kick-off, project understanding and the initial review, weekly calls with the project team may be necessary, while during ESA work periods or latter administrative review periods, formal team communication may be less frequent. ESA's approach also involves diligent tracking and cataloging of all project information and key decisions relevant to the work we do and the assumptions made or relied on. To further support effective and efficient communication and information sharing, ESA offers technologies for video and audio conferencing for multiple users, internet-based large file transfers (ESA DeliverIt), and shared project directories for multiple users (ESA Solutions).

## Stakeholder Engagement

For public and external communication, either by our team members or BCAD staff, the ESA team focuses on clear, consistent, and transparent communication to ensure a high level of public trust in the process. We monitor traditional print and other media along with websites, social media, and blogs that in recent years have invariably arisen on items that have potentially controversial elements. Keeping a finger on the pulse of various interest groups up to and including municipalities, it is possible to identify emerging issues and concerns and identify those points that will be arising in upcoming meetings. This allows BCAD to be prepared to react in a proactive fashion rather than constantly being in a reactive mode.

In addressing system wide environmental issues associated with airport operations and project implementation, stakeholder engagement is often a critical element. We will not only consider stakeholder concerns at a program level, but will integrate outreach in tasks as appropriate. For certain tasks of high stakeholder or community interest, a stakeholder engagement plan may be critical to task success. In these cases, we will include development of a flexible and responsive outreach plan that addresses stakeholder issues before they have the chance to escalate. ESA and key members of our Team, Ricondo and Associates and Garth Associates, have demonstrated our ability to cohesively and effectively address community concerns through our work on the FLL Part 150 Noise and Land Use Compatibility study and the HWO and FLL MPUs.

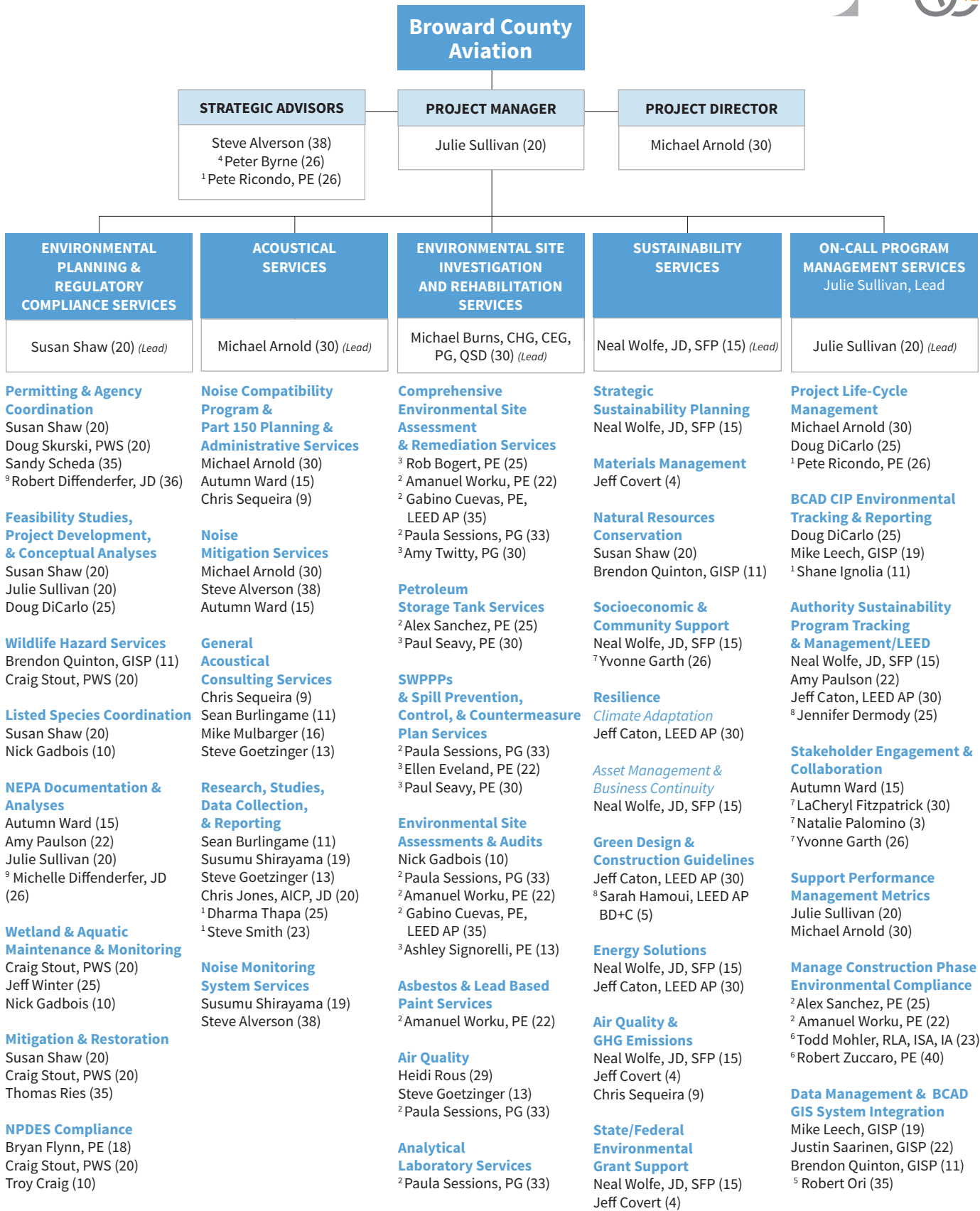
## Subconsultant Involvement

While ESA has a full complement of in-house services, we understand that specialized partners provide value-added service and local knowledge and project experience that enhance responsiveness and the ability to fully support the myriad of tasks under this contract.

## Organizational Structure

The ESA Team affords BCAD the necessary expertise of a large consulting firm combined with the personal, dedicated, and collaborative involvement of senior professionals typically found in only smaller companies. ESA's approach to these on-call services includes compilation of highly qualified and dedicated senior professional staff with proven experience in successfully completing similar projects. An Organizational Chart, presented on the following page, has been developed to depict the major study elements and the key personnel that will lead and support the identified tasks (resumes are included at the end of Section 1). By selecting specialty aviation consulting teaming partners and key staff with whom BCAD and ESA have long-standing relationships, we will provide an integrated approach to the technical services required for successful project completion. The key staff identified are the best and the brightest in the consulting industry. They have extensive experience developing environmental documents that meet FAA and other federal and local agency requirements and a well-earned reputation for exceeding client expectations. Many of the professionals assigned to this project have extensive experience and intimate knowledge of BCAD's airports. As trusted advisors, they understand not only BCAD's history and issues, but the strategic importance of our role and the opportunity that it provides in laying out the future vision of the airport system. Combined with a deep bench of technical experts and national experience on similar projects, we also offer fresh perspectives and insights on evolving trends affecting the aviation industry. Key among these trends is the focus on sustainability and resiliency and strategies for maximizing airport revenues through development of land not needed for aviation. The ESA Team brings expertise in identifying flexible solutions and realistic and implementable development strategies that allow for expedited processing through environmental evaluation and review processes.

To address the unique needs of these services and for their knowledge of and experience with BCAD, we have selected the specialized partners shown on the organizational chart on the next page as members of the ESA Team.



Subconsultant Legend

<sup>1</sup>Ricondo <sup>2</sup>CEI\* <sup>3</sup>MSE\* <sup>4</sup>ASG <sup>5</sup>PTI <sup>6</sup>KCI <sup>7</sup>GSi\* <sup>8</sup>J | D\* <sup>9</sup>LLW (All other staff are with ESA.)

\* Denotes firm DBE status.

(xx) Depicts number of years of experience for the individual.



In November of 2019, total airport traffic at FLL was up **1.7%** from November 2018.

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# 3

## Past Performance

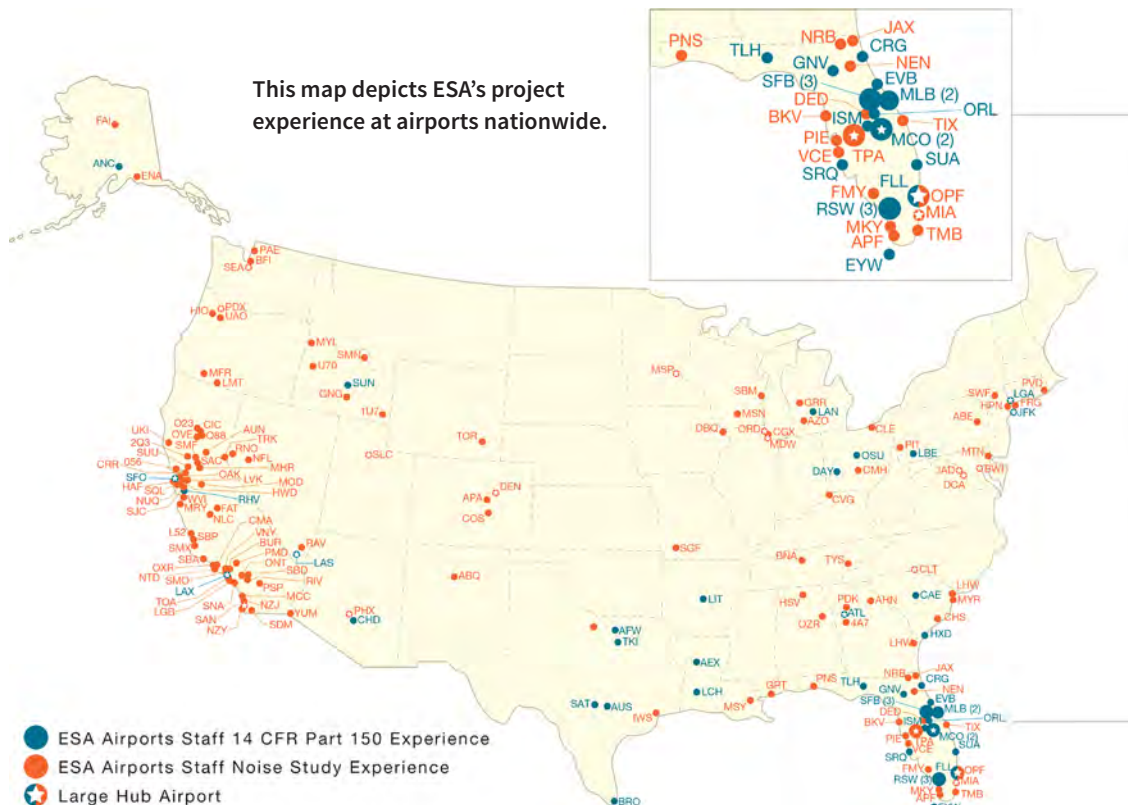
## Section 3

# Past Performance

Our technical knowledge and unmatched client service is demonstrated by the fact that more than 85 percent of our business comes from repeat clients. Whether it is fast-tracked NEPA documentation and approval or an emergency permit for relocation of gopher tortoises from an airfield, ESA consistently exceeds client expectations. ESA has decades of experience providing on-call services to many of the largest and most complex airports in the country, successfully navigating virtually every type of project. Airport clients throughout the nation have repeatedly turned to ESA on controversial projects when public and/or agency confidence in the process was at an all-time low. Each time, we have led those projects to successful conclusion. Our clients entrust us with their high-stake challenges because we deliver.

ESA has provided airport noise and environmental planning, as well as public engagement and facilitation, at more than 150 airports worldwide. Our extensive community involvement experience at busy air carrier airports includes the facilitation of airport/community roundtables at SFO and LAX as well as our work on the JFK, LGA, and FLL Part 150s. The ultimate goal of our work is to assist our airport clients with helping communities and key airport stakeholders discuss, understand, and balance the benefits of a major air carrier airport.

The following project examples highlight just some of our expertise on projects of similar nature, scope, and duration over the past five years. Vendor Reference Verification Forms are provided for each of these projects. Other relevant project examples are also provided.



**REFERENCE**

Gene Conrad, LAL  
 (863) 834-3298  
 Gene.Conrad@lakelandgov.net

**DATES OF WORK**

2011 - Ongoing

## Relevant Project Experience

### Lakeland Linder International Airport General Environmental Services, Various Contracts

Through multiple on-call contracts at LAL, **ESA** provides a full range of environmental and noise consulting services including: NEPA compliance, listed species coordination, noise analysis, wetland assessment and mapping, wildlife hazard assessment and management, environmental resource permitting, permit compliance, and comprehensive agency coordination. **ESA** is the airport's "go to" firm for environmental services providing everything from rapid response NPDES compliance support during construction on the new intermodal facility to NEPA and permitting for the new Amazon air hub set to bring 1,000+ jobs to the City. Current tasks include implementation and management of several on-site mitigation projects, wildlife hazard program support, multiple NEPA compliance projects and support for the airport LAL MPU. In addition to the current tasks, **ESA** has completed a number of other assignments in the past five years including, but not limited to:

- EA and permitting for a new Air Traffic Control Tower,
- NEPA clearance for new Instrument Landing System (ILS) and subsequent NEPA for upgrade of the ILS to Category II,
- EA for a 30-acre solar farm,
- Wildlife Hazard Assessment, Management Plan and annual training,
- CatEx for a new turf runway (improvements to a limited use facility),
- NEPA for multiple hangars, including NOAA's Aircraft Operations Center (Hurricane Hunters) hangar,
- EA for Amazon Air Cargo Logistics Facility,
- Relocation of listed gopher tortoises for multiple construction projects,
- CatEx for airfield (taxiways) improvements,
- Line of site Runway Protection Zone wetland clearing permits,
- Onsite mitigation design and permitting,
- Master Plan and NEPA noise support, and
- Support for contamination/remediation and groundwater monitoring programs.

With mitigation options limited in the area of the airport, innovative mitigation strategies are requisite. **ESA** manages the implementation, maintenance, monitoring and reporting for multiple onsite wetland creation areas, providing all compliance and land management services. As new projects are proposed, **ESA** works with the Southwest Florida Water Management District, the USACE, and other stakeholders to implement cost-effective and sustainable mitigation strategies for the airport.



### Vendor Reference Verification Form

Broward County Solicitation No. and Title:

R PNC2119437P1, Environmental Planning and Acoustical Consulting Services

Reference for: Environmental Science Associates

Organization/Firm Name providing reference:

Lakeland Linder International Airport

Contact Name: Gene Conrad

Reference date: 12/19/2019

Contact Email: Gene.Conrad@lakelandgov.net

Contact Phone: 863-834-3298

Name of Referenced Project: On-Call Environmental Consulting Services

Contract No.

Date Services Provided:

Project Amount:

2011 to Ongoing

\$500,000

Vendor's role in Project:  Prime Vendor  Subconsultant/Subcontractor

Would you use this vendor again?  Yes  No

#### Description of services provided by Vendor:

Through multiple on-call contracts at the Lakeland Linder International Airport (LAL), ESA provides the full range of environmental and noise consulting services with assignments including: NEPA compliance, listed species coordination, noise analysis, wetland assessment and mapping, wildlife hazard assessment and management; environmental resource permitting, permit compliance, and comprehensive agency coordination.

#### Please rate your experience with the referenced Vendor:

	Needs Improvement	Satisfactory	Excellent	Not Applicable
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1. Vendor's Quality of Service				
a. Responsive	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Accuracy	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Deliverables	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Vendor's Organization:				
a. Staff expertise	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Professionalism	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Turnover	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. Timeliness of:				
a. Project	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Deliverables	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4. Project completed within budget	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5. Cooperation with:				
a. Your Firm	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Subcontractor(s)/Subconsultant(s)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Regulatory Agency(ies)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Additional Comments: (provide on additional sheet if needed)

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Verified via:  EMAIL  VERBAL Verified by: \_\_\_\_\_ Division: \_\_\_\_\_ Date: \_\_\_\_\_

## Greater Orlando Aviation Authority Environmental and Noise Services

For the past 20 years, **ESA** has provided general environmental and noise consulting services to GOAA for the Orlando International (MCO) and Executive Airports (OEA). Much of this work has included providing specific airport planning and environmental analyses and assisting GOAA with project implementation strategy. Notable studies include:

- **New Large Aircraft - ESA** prepared the EA for projects required to accommodate New Large Aircraft operations. This included evaluation of the implications of the fleet change on the airport operation as well as the physical impacts resulting from the relocation and widening of taxiways and strengthening of bridges. Airfield improvements included taxiway widening projects to address jet blast and outboard aircraft engine ingestion concerns, strengthening an existing taxiway bridge to accommodate aircraft with a maximum gross weight of 1.24 million pounds, installation of new passenger loading bridges, and rearrangement of a ground support equipment area, including hydrant fueling locations.
- **South Terminal Complex - ESA** prepared NEPA documentation for the 100-gate terminal expansion, which included both landside and airside buildings, aircraft parking aprons, internal automated guideway passenger systems, circulation roadways, parking, and related support infrastructure. Key issues included wetland mitigation, aircraft noise analysis, alternatives analysis, and agency coordination.
- **East Airfield Development Program- ESA** prepared a “programmatic” EA for the development of large-scale aviation and non-aviation facilities and removal of hazardous wildlife attractants (wetlands) on the 1,342-acre East Airfield site at MCO. The unique project provides large tracts of land ready for major aviation-related development, including aircraft manufacturing, aircraft maintenance, and heavy freight activities. The EA allowed the FAA to approve the selection of the site for future aviation-related development and allowed the GOAA to grade the site and install a stormwater management system, construct a 30-acre secondary fuel storage and distribution facility, and remove approximately 171 acres of jurisdictional wetlands designated as hazardous wildlife attractants. The project will increase and diversify airport revenue, improve critical system redundancy, and enhance airport safety to ensure long-term economic viability and resiliency. The scale and magnitude of this national precedent-setting project required extensive public and agency coordination throughout the NEPA review and approval process.

**ESA** also conducted the most recent Part 150 Noise and Land Use Compatibility studies for OEA and MCO and assisted in the development of tiered noise overlays to ensure long-term land use compatibility. **ESA** served as the Program Manager for resulting Residential School sound insulation programs. **ESA** continues to provide ongoing noise support including work related to implementation of new procedures under the FAA’s South Central Florida Metroplex project.



### REFERENCE

Brad Friel, GOAA  
(407) 797-5561  
bfriel@goaa.org

### DATES OF WORK

1999 - Ongoing





### Vendor Reference Verification Form

Broward County Solicitation No. and Title:

R PNC2119437P1, Environmental Planning and Acoustical Consulting Services

Reference for: Environmental Science Associates

Organization/Firm Name providing reference:

Greater Orlando Aviation Authority

Contact Name: Brad Friel

Reference date: 12/31/2019

Contact Email: bfriel@goaa.org

Contact Phone: 407-797-5561

Name of Referenced Project: On-Call Environmental and Noise Services

Contract No.

Date Services Provided:

Project Amount:

01/01/1999 to 12/31/2020

\$ 2,500,000.00

Vendor's role in Project:  Prime Vendor  Subconsultant/Subcontractor

Would you use this vendor again?  Yes  No

**Description of services provided by Vendor:**

South Terminal EA, New Large Aircraft EA, East Airfield EA, Multiple catexs for land releases, development projects and PFC applications. Part 150 Noise Studies and Noise support for Orlando International and Executive Airports.

**Please rate your experience with the referenced Vendor:**

**Needs Improvement      Satisfactory      Excellent      Not Applicable**

1. Vendor's Quality of Service				
a. Responsive	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Accuracy	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Deliverables	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Vendor's Organization:				
a. Staff expertise	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Professionalism	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Turnover	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. Timeliness of:				
a. Project	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Deliverables	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4. Project completed within budget	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5. Cooperation with:				
a. Your Firm	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Subcontractor(s)/Subconsultant(s)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Regulatory Agency(ies)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Additional Comments: (provide on additional sheet if needed)

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## Port Authority of New York and New Jersey Part 150 Noise and General Environmental and Noise Services, Various Contracts

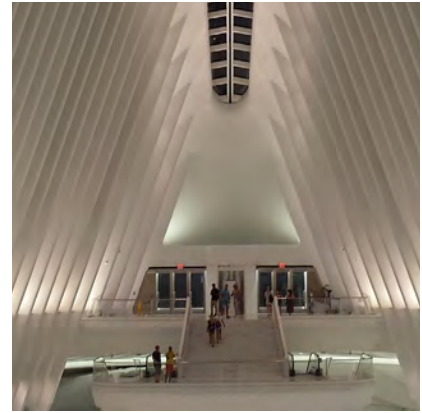
**ESA** is preparing the Part 150 Noise and Land Use Compatibility Study for both JFK and LGA. The comprehensive study (including preparation of Noise Exposure Maps [NEMs] and a Noise Compatibility Program [NCP]) is the first ever undertaken for JFK and LGA and comes at the direction of the Governor of New York in response to community concerns. A detailed study protocol was developed at the outset of the project to identify and secure consensus on key assumptions with the FAA and PANYNJ. Key considerations include:

- Highly controversial and charged political environment,
- Community concerns extending large distances from the airport,
- Competing community interests,
- Incomplete and inconsistent land use and operational data,
- Extensive community outreach,
- Extensive industry outreach,
- Comprehensive aircraft profile customization, and
- Highly complex airspace operation.

The project included an extensive land use data collection effort of numerous surrounding jurisdictions and reclassifying those uses in a consistent framework to allow evaluation of impacts to residential and noise sensitive uses. A complicating factor was the temporary closure of one of the primary runways at JFK during the study for construction, requiring evaluation of a pre-construction period to establish baseline conditions. The Technical Advisory Committee (TAC) met a total of 36 times during the course of the project to thoroughly vet project assumptions, results, and potential NCP measures. Community stakeholder input throughout the project and periodic large community workshops were held to allow members of the **ESA** team, FAA, and PANYNJ to interact one-on-one with the public. The project, the largest noise study ever conducted in the U.S., includes involvement of an extensive FAA support team including FAA's airports, air traffic, legal, and communications staff.

During the course of the Part 150 studies **ESA** also provided noise services in support of the EA for the temporary closure of Runway 13L/31R; this analysis was instrumental in securing FAA NEPA approval.

In early 2019, **ESA** was selected by the PANYNJ to provide on-call environmental consulting services including analysis and studies relative to FAA Order 1050.1F. This work includes environmental planning in support of capital projects and noise analysis, including noise modeling and stakeholder outreach and sustainability planning, analysis, and reporting including evaluation of GHG emissions.



### REFERENCE

Kelly Mitchell, PANYNJ  
(212) 435-3728  
kmitchell@panynj.gov

### DATES OF WORK

2014 - Ongoing





### Vendor Reference Verification Form

Broward County Solicitation No. and Title:

R PNC2119437P1, Environmental Planning and Acoustical Consulting Services

Reference for: Environmental Science Associates

Organization/Firm Name providing reference:  
Port Authority of New York and New Jersey (PANYNJ)

Contact Name: Kelly Mitchell

Reference date: 12/31/2019

Contact Email: kmitchell@panynj.gov

Contact Phone: 212.435.3728

Name of Referenced Project: JFK and LGA Part 150 Noise Studies and Environmental Planning

Contract No.	Date Services Provided:	Project Amount:
<u>Agreement # AVI-14-036</u>	<u>10/06/2014</u> to <u>12/31/2020</u>	<u>\$ 9,995,451.00</u>

Vendor's role in Project:  Prime Vendor  Subconsultant/Subcontractor

Would you use this vendor again?  Yes  No

**Description of services provided by Vendor:**

Comprehensive Part 150 Noise Studies for LaGuardia (LGA) and John F. Kennedy (JFK) International Airports. NEPA support for JFK runway closure and rehabilitation project.

**Please rate your experience with the referenced Vendor:**

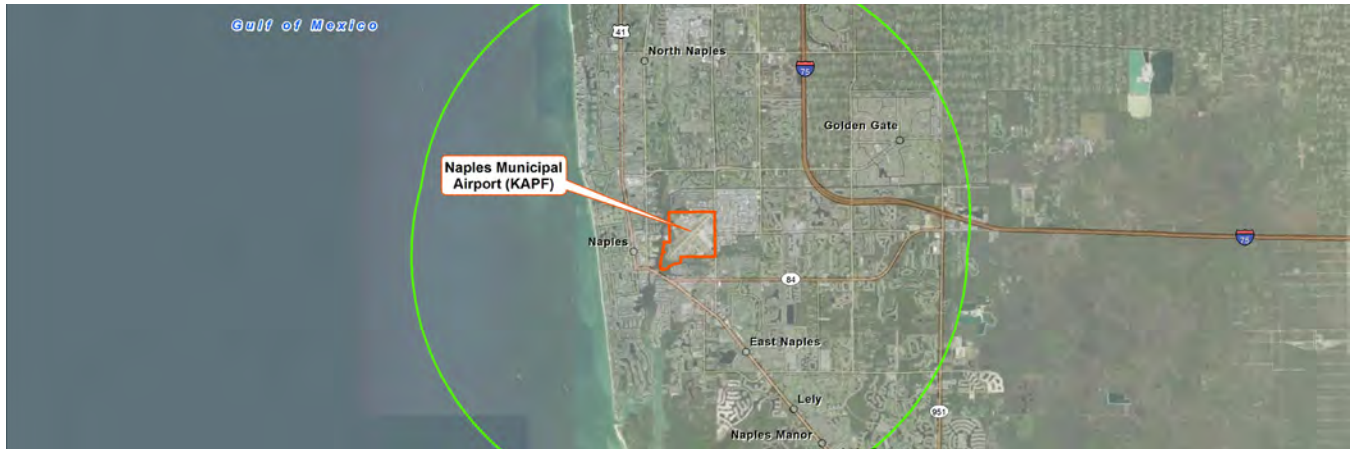
	<b>Needs Improvement</b>	<b>Satisfactory</b>	<b>Excellent</b>	<b>Not Applicable</b>
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1. Vendor's Quality of Service				
a. Responsive	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Accuracy	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Deliverables	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Vendor's Organization:				
a. Staff expertise	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Professionalism	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Turnover	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. Timeliness of:				
a. Project	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Deliverables	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4. Project completed within budget	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5. Cooperation with:				
a. Your Firm	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Subcontractor(s)/Subconsultant(s)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Regulatory Agency(ies)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Additional Comments: (provide on additional sheet if needed)

THIS SECTION FOR COUNTY USE ONLY\*\*\*

Verified via:  EMAIL  VERBAL Verified by: \_\_\_\_\_ Division: \_\_\_\_\_ Date: \_\_\_\_\_

**REFERENCE**

Kerry Keith, APF  
 (239) 643-0733  
 kkeith@flynaples.com

**DATES OF WORK**

2014 - Ongoing

### **Naples Airport Authority General Environmental and Noise Services, Various Contracts**

In 2014, **ESA** was brought into a project at APF when permitting had stalled and expertise was required to facilitate the wetland impact approvals and mitigation negotiations. **ESA** successfully supported the permitting of that project (West Quad Pond) and began providing services to the airport under the existing General Engineering Consultant contract. Subsequently, **ESA** has been selected for multiple projects that represent the full range of environmental and noise services requested by BCAD. Under the recently selected GEC, **ESA** provides all environmental services ranging from NEPA compliance to wildlife hazard support and provides ongoing strategic environmental support. Tasks under this contract include:

- Environmental Studies, Permitting, and Mitigation,
- Stormwater Improvements,
- GIS Program and Surveying,
- Site and Utility Development,
- Sustainability and Resiliency,
- Facility Protection from Hurricanes,
- Ramp and Hangar Area Development and Airport Fencing,
- Vegetation and Wildlife Management, and
- Any other consulting services required for proper maintenance, planning, and development at the Naples Airport.

In addition to the GEC, **ESA** is currently leading the airport's MPU which has a strong focus on maximizing the potential development within the airport's environmental constraints. Other key project elements include sustainability evaluation and goal setting.

Most recently, **ESA** was selected to provide comprehensive Noise Consultant Services to APF which includes both ongoing support for the airport's noise program and a new Part 150 study with a heavy emphasis on community involvement and outreach. **ESA** was selected for this contract because of our unique blend of premier technical qualifications and ability to manage large, complex, high profile (and often controversial) noise projects.



## Vendor Reference Verification Form

Broward County Solicitation No. and Title:

R PNC2119437P1, Environmental Planning and Acoustical Consulting Services

Reference for: Environmental Science Associates

Organization/Firm Name providing reference:

Naples Airport Authority

Contact Name: Kerry Keith

Reference date: 01/02/2020

Contact Email: kkeith@flynaples.com

Contact Phone: 239-643-0733

Name of Referenced Project: Environmental, Planning and Noise Services

Contract No.	Date Services Provided:	Project Amount:
<u>Multiple Projects</u>	<u>01/01/2014</u> to <u>12/31/2020</u>	<u>\$ 3,000,000.00</u>

Vendor's role in Project:  Prime Vendor  Subconsultant/Subcontractor

Would you use this vendor again?  Yes  No

### Description of services provided by Vendor:

ESA provides a variety of noise and environmental services to APF through several contracts including: On-Call General Engineering Consultant, Noise Consulting Services, Runway 5-23 Drainage Improvements and the current Master Plan Update, current ongoing consulting services.

### Please rate your experience with the referenced Vendor:

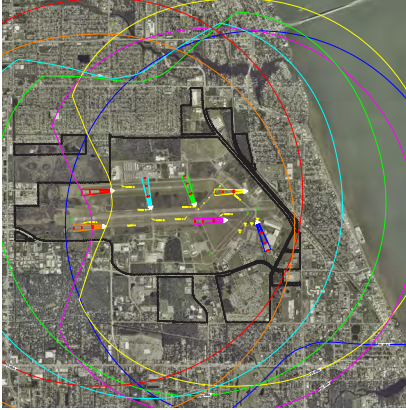
	Needs Improvement	Satisfactory	Excellent	Not Applicable
1. Vendor's Quality of Service				
a. Responsive	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Accuracy	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Deliverables	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Vendor's Organization:				
a. Staff expertise	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Professionalism	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Turnover	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. Timeliness of:				
a. Project	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Deliverables	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4. Project completed within budget	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5. Cooperation with:				
a. Your Firm	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Subcontractor(s)/Subconsultant(s)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Regulatory Agency(ies)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Additional Comments:** (provide on additional sheet if needed)

ESA has been working for the Naples Airport Authority as a consultant and sub-consultant since 2014 with excellent results. Timely, cost effective, knowledgeable, and flexible.

THIS SECTION FOR COUNTY USE ONLY\*\*\*

Verified via:  EMAIL  VERBAL Verified by: \_\_\_\_\_ Division: \_\_\_\_\_ Date: \_\_\_\_\_

**REFERENCE**

Greg Donovan, MLB  
 (321) 723-6227  
 gdonovan@mlbair.com

**DATES OF WORK**

1993 - Ongoing

## Orlando Melbourne International Airport On-Call Environmental Services

**ESA** provides on-call environmental services to MLB through a number of contract mechanisms, including a current on-call environmental and noise services contract. **ESA** has supported the General Engineering Contract at MLB and provided the full range of noise, planning, and environmental services since 1993. Assignments under this contract included NEPA clearance for ~20 projects at MLB, a Part 150 Study, a MPU, and a multitude of other as-needed assignments. Some of the NEPA projects **ESA** supported are:

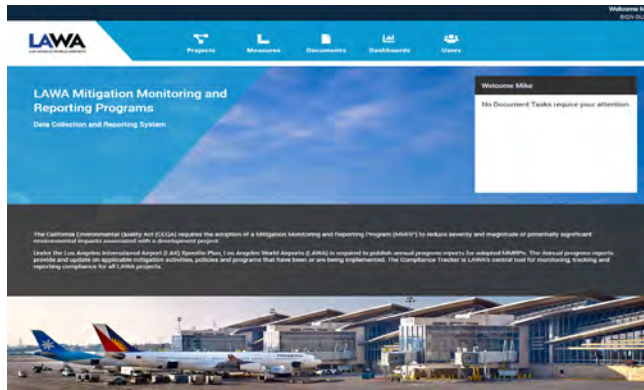
- West Hangar Development Area (Site 1) - A 20,000 square foot metal frame aircraft maintenance hangar and a 12,000 square foot open-sided hangar on the north side of Runway 9L/27R, west of Taxiway “M”.
- Embraer Executive Jets - Hangars 1-4, Building 5, and associated Aircraft Parking Aprons representing ~600,000 square feet of facilities.
- Embraer Executive Jets Engineering and Technology Center USA - A major expansion of its campus for research and product development.
- Baer Air Hangar 2 and Related Improvements - Fixed Base Operator (FBO) at MLB.
- Widen Taxiway “K” – Phase 1.
- MidAir USA Hangars and Associated Apron Improvements - An 83,000 square foot state-of-the-art aircraft maintenance hangar and reconstruction of the air cargo apron.
- International Apron Expansion – Phase 2.
- Taxiway “V” Rehabilitation and Central Apron Expansion.
- Taxiway “F” Improvements.
- Biman-Hut Hangar Phase 2.
- Northrop Grumman Campus Expansion - Construction of up to five new 3-story office/research buildings at the existing campus located in the southwest quadrant of MLB.

**ESA** has provided noise services to MLB for more than 25 years. In addition to a recent Part 150 Noise and Land Use Compatibility Update, **ESA** conducted a series of noise related studies. These studies included engine run-up noise analysis for various aircraft maintenance facilities and establishment of procedures to help minimize community noise impacts. **ESA** also conducted an analysis of the effectiveness of various noise barrier strategies and the siting of a new ground run-up enclosure (GRE).



**ESA** also recently completed a MPU for MLB, one of the most dynamic and successful airports in the country. MLB's ongoing development program represents nearly \$1 billion of public and private investment in aviation and military research, education and training, aircraft manufacturing and assembly, and heavy aircraft maintenance. A victim of its own success, MLB found itself quickly running out of developable land. This, and the many changes occurring since the 2004 Master Plan, drove the need for the update. A substantial effort at the outset of the project was a visioning process with airport management and the Melbourne Airport Authority (MAA) to define the overall goals and specific objectives to guide the different elements of the study. This was quickly followed by more than 30 interviews with the airport stakeholders, including the airlines and charter operators; every major tenant and aircraft operator; aircraft manufacturers and maintenance companies; the Florida Institute of Technology (FIT); local economic and tourism development councils; Melbourne City Council members; and Brevard County representatives.

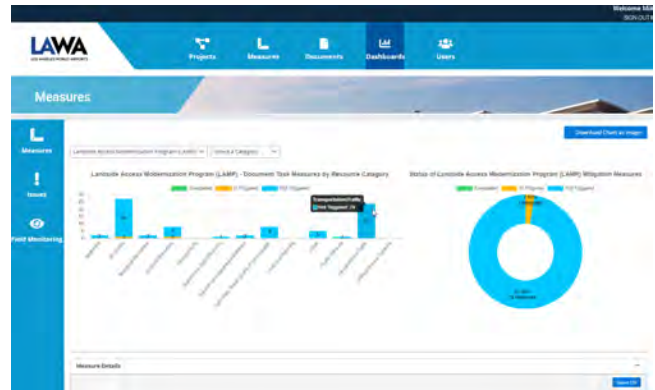
**ESA** incorporated a number of unique, yet essential, components into the study that were beyond those of the standard master plan process. These helped ensure every facet of the airport's infrastructure and operation were addressed including redirecting existing projects, which were already underway when the study started, to comply with the newer FAA requirements. During the process, a Runway Incursion Mitigation (RIM) analysis was also performed and approved by the FAA, while a full runway and taxiway flow analysis helped identify critical conflicts and chokepoints. A constraints analysis of the existing operational, physical, and environmental conditions was performed to define potential limitations that needed to be considered when developing future airport development alternatives. There was also an emphasis placed on the creation of a new airport research park and identification of a future property acquisition strategy for longer term airside and landside development options.



### Los Angeles World Airports Mitigation Measure Reporting Program (MMRP) Data Collection and Reporting System Development

ESA is supporting LAWLA’s Environmental Programs Group (EPG) effort to streamline environmental management of all Mitigation Measure Reporting Program (MMRP) projects associated with the Los Angeles International Airport and Van Nuys General Aviation Airport. **ESA** developed a customized environmental compliance and reporting system that will streamline monitoring and data collection, automate the reporting process, and provide EPG with a compliance tool to integrate and manage existing and future projects. The **ESA** team developed all of the standardized forms, dashboards, and functions associated with the system. The system automates LAWLA’s internal document review, approval processes, and inspections using the standardized field forms. The system also includes a fully integrated GIS to allow LAWLA to track compliance issues by location. Monitors can access data and field forms on mobile devices, increasing the efficiency of data collection. Additional features of the system include:

- Secure login for project team members and partners,
- Central storage information system for compliance monitoring and issue tracking, and
- Integration with PowerBI for additional data visualization capabilities.



### Santa Susana Field Laboratory Programmatic and Project Level EIR

The California Department of Toxic Substances Control provides oversight of the site investigation and cleanup activities for the former SSFL, located in the Simi Hills, northwest of Los Angeles, California. SSFL was a government-sponsored research and testing facility from 1947 to 2006. Site activities included research, development, and testing of rocket engines, water jet pumps, lasers, liquid metal heat exchanger components, nuclear energy, and related technologies. The principal activities were large rocket engine testing and nuclear power generation research. Soil and groundwater are contaminated with various chemicals, principally trichloroethene, along with other chemicals and radionuclides. The soil and groundwater contamination requires investigation and cleanup. These activities are highly scrutinized by the local communities and the site is the subject of ongoing legal action. **ESA** prepared the Programmatic and Project Level EIR for soil and groundwater remediation. Key issues included evaluating the impacts from the cleanup of chemical and radioactive waste to cleanup workers, the environment, surrounding residential areas, and the future proposed open space and parkland land use.



## Miami-Dade Aviation Department (MDAD) Environmental and Acoustical On-Call Services

**ESA** has served as general noise and environmental consultant for MDAD for the past 20 years and has provided a wide variety of environmental, noise, land use, and planning services for Miami International Airport (MIA), TMB, and OPF Airports. As a trusted advisor to MDAD, we assist with project implementation strategy and navigation of the complex environmental and aviation regulatory environments that airports deal with in carrying out their mission. MIA, TMB, and OPF combined represent the busiest airport system in the southeastern U.S. and accommodate virtually every type of aircraft activity. Each airport is very different in its setting and combined require expertise in a wide range of environmental resources with particular focus on those in South Florida. In early 2018, **ESA** was reselected for an additional five-year term. Projects include:

### MIAMI INTERNATIONAL AIRPORT:

- New Air Carrier Runway EIS and Terminal Expansion NEPA Documentation,
- Operational Noise Mitigation Procedures EA,
- Wildlife Hazard Management Plan Update,
- Noise 101 Course,
- Noise Contour Updates (2012, 2017),
- Runway 12 FAA Procedure Evaluation, and
- Noise Abatement Committee Support.

### MIAMI EXECUTIVE AIRPORT (KENDALL-TAMIAMI)

- Runway Extension EA,
- Noise Abatement Program Development and Stakeholder Outreach,
- Jeppesen Inserts,
- Wildlife Hazard Assessment,
- Wildlife Hazard Management Program, and
- CY2017 Noise Contour Update.

### MIAMI - OPA LOCKA EXECUTIVE AIRPORT

- New Air Traffic Control Tower EA,
- Wildlife Hazard Assessment,
- Wildlife Hazard Management Plan, and
- 2017 Noise Contour Update.





### **Airport MPU Consultant Services**

In 2015, BCAD selected a team of consultants led by **Ricondo** to prepare MPUs for FLL and HWO. The Master Plans identified the capital development needs to serve aeronautical demand that is forecast through 2036. Additionally, market studies assessed potential non-aeronautical development opportunities that would enhance the County's revenue-generating capabilities.

For FLL, the MPU will guide future expansion of the terminal complex, including passenger processing facilities, employee and public parking, landside (roadways, curbside), and rental car facilities. It will also explore improved integration with other ground transportation modes, including mass transit initiatives planned by Broward County and other enterprises. This includes the potential development of an automated people mover (APM) system to provide interconnectivity among FLL's unit terminals and a potential transit hub adjacent to the airport. The infrastructure necessary to support future cargo, general aviation, and airline/airport support facilities was identified. Additionally, opportunities for property acquisition and/or disposal were considered during the MPU for FLL.

As the busiest general aviation airport in the State of Florida, HWO's tenants plan significant facility expansion, particularly for aircraft storage hangars and parking aprons. The MPU identified a strategic approach to future tenant facility development that would result in safe and efficient operations, while also identifying potential nonaeronautical development opportunities. The MPU also integrated various airfield modifications necessary to comply with newly established FAA design standards.

## Sustainability Management Plan at TPA

In 2013, **Ricondo** was retained by the Hillsborough County Aviation Authority to prepare an SMP for TPA. The Authority defined a comprehensive approach to incorporating sustainability as a core objective in its near-term and long-term airport planning and decision-making processes.

**Ricondo** worked closely with the Authority to define a comprehensive sustainability program for the airport. Foundational elements of the program include a sustainability vision, sustainability goals, and performance targets that define what the Authority aims to achieve through program implementation. **Ricondo** facilitated work sessions with various internal and external stakeholder groups to identify actions (or initiatives) the Authority could implement to achieve its sustainability targets, and evaluated those actions, with Authority input, to prioritize the most effective initiatives for near- and long-term implementation. **Ricondo** documented the findings from the SMP process, describing the Authority's sustainability program and providing implementation guidance. This guidance consisted of a series of activities to implement all components of the program, ranging from planning to implementation to tracking; and reporting and evaluating outcomes based on a plan-do-check-act management implementation framework. **Ricondo** developed a series of tools to support implementation activities, including tools to track initiatives for future consideration, define and track initiative implementation progress, and track and report progress toward achieving sustainability performance targets, among others. A principal focus of the Authority's sustainability program was prioritization of the need to integrate its sustainability objectives into the upcoming airport capital development program defined in the recently completed MPU for the airport. **Ricondo** developed a Sustainable Design Criteria Manual (SDCM) that supports the Authority's sustainability goals by defining a process to integrate sustainable design into the Authority's existing design process, and actions and best practices in sustainable design to be considered during project design. The SDCM is supported by a series of tools to guide the process and track progress, with a focus on capturing lessons learned for consideration in future projects.

The project was funded through the FAA's SMP Pilot Program. The SMP was completed in March 2015. As a follow-up implementation assignment to the SMP, **Ricondo** supported FAA's review of a proposed solar canopy installation on the top level of a public parking garage. Operation of the 2-megawatt solar installation began in February 2016.





### **Miami International Airport Jet-A Fuel Facility Emergency Response, Clean-up and New Fueling System Construction**

#### **ENVIRONMENTAL REMEDIATION**

**CEI** conducted excavation activities for installation of approximately 4,000 linear feet of new underground double-walled fuel lines (ranging from 12-inches to 30-inches in diameter). Additionally, they performed the remediation of contaminated soils and groundwater by removing the fuel-saturated soil (approximately 21,000 tons) for off-site disposal and skimming of free-floating product (approximately 50,000 gallons). **CEI** also designed, set-up, and conducted a dewatering system for installation of the underground fuel piping system. Approximately 1.1 million gallons of water were removed as part of the dewatering activities.

#### **SITE/CIVIL WORK**

**CEI** conducted excavation activities for installation of underground electrical duct banks including service lines, main FPL feeder, and site lighting. They formed and poured more than a 1,000 linear feet of underground electrical duct banks. Excavation activities were conducted for installation of cathodic protection system. **CEI** also graded and compacted excavation activities associated with fuel line, electrical duct bank, and cathodic protection system installation. Approximately 16,000 cubic yards of fill material was transferred and site restoration activities was conducted (i.e., paving and sodding).

#### **MECHANICAL/POLLUTANT SYSTEM STORAGE CONTRACTOR OVERSIGHT**

**CEI** conducted oversight of the underground jet fuel line installation. They conducted the pneumatic and hydrostatic testing of the carrier and containment jet fuel piping, above ground and underground. **CEI** prepared the fuel flushing plan in order to introduce fuel into the system and test fuel quality. They conducted fabrication of 14- and 16-inch fuel lines to tie-in the new hydrant pump station at the South Facility into the existing system.



### **Compressed Natural Gas (CNG) Fueling Infrastructure Improvements for Jacksonville Transportation Authority (JTA)**

**CEI** was contracted by Clean Energy to perform various improvements throughout the JTA County Bus Maintenance Facility, including CNG infrastructure, building demolition, and paving and drainage.

**CEI** performed as the General Contractor for Clean Energy to convert the existing diesel bus fueling system to a CNG fueling system. In addition, a public CNG dispensing island will be constructed isolated from the bus facility. The administration building (Building F) was also demolished, as well as a parking lot created in the O'Steen property. Various other parking lot modifications, including drainage and restriping, were also performed.

### Site Assessment and Source Removal at Amelia Earhart Park

Amelia Earhart Park was identified by the USACE as a former Army Airfield. During installation of a new sewer forcemain, evidence of a landfill/dump area was discovered. **CEI** was tasked with conducting a site investigation. As part of the investigation, **CEI** excavated 19 test pits and documented Lithology and possible buried debris. Soil was collected and screened with an organic vapor analyzer (OVA) for hydrocarbon vapors. Subsequent to visual and photographic documentation and sampling/screening, test pits were backfilled with the soil originally removed from soil borings, and continuous soil cores were screened and sampled.

Additionally, **CEI** installed groundwater monitoring wells to determine the extent of the groundwater contamination. Based on the soil and groundwater assessments, **CEI** proceeded to conduct source removal through soil excavation and disposal.

### Curtis Park Environmental Remediation

**CEI** was awarded the Curtis Park Environmental Remediation project by the City of Miami. The work consisted of corrective actions to address contamination at the City of Miami owned and operated 25-acre property called Curtis Park. The work area for this project is approximately 12 acres. **CEI** implemented procedures for selective removal and replacement of structures and other park features and foundations, including removal of on-site fencing, sand pit, selected asphalt walkways, bleacher pads, and a one story concrete building and pad. **CEI** also excavated an approximately 12-inch layer of surface soil and ash from specified areas of the park, and relocated excavated material on-site to the baseball field area, where it was used to re-grade the area prior to adding a geosynthetic clay liner, and clean fill cap. The excess excavated material was hauled off-site and disposed of at a Class I Landfill.



**Greater Orlando Aviation Authority Continuing Environmental Engineering Services Agreement**  
*Since 2013, MSE has supported GOAA's environmental department in meeting its objectives and goals to comply with federal, state, and local regulations governing various environmental engineering and compliance programs. MSE's services under this agreement are summarized below.*

**HAZARDOUS AND SOLID WASTE MANAGEMENT**

**MSE** provides continual support for GOAA's hazardous and solid waste program and conducts annual universal and hazardous waste training for employees, waste managers, and tenant personnel. These inspections are to maintain compliance with RCRA regulations and to ensure GOAA's tenants comply with its values of environmental stewardship.

**STORAGE TANK MANAGEMENT**

**MSE** performs monthly oil storage tank inspections at 39 MCO locations in accordance with FDEP Chapter 62-761 and 62-762 of the Florida Administrative Code (FAC) and EPA oil pollution prevention regulations defined in Title 40, Code of Federal Regulations, Part 112 (40 CFR 112). The team has inspected over 3,000 oil storage units at MCO and OEA including above- and underground storage, day tanks, hydraulic elevator tanks, and drum storage areas as well as developed the Spill Prevention, Control, and Countermeasure (SPCC) plans for both facilities. This effort included inventory of all oil storage units; evaluation of spill potential, direction, and flow; calculation of containment volumes; review of inspection and training programs; and redevelopment of storage tank and spill diagrams. **MSE** also implemented its innovative data management system to track the SPCC inspections, plan updates, and training. This technology has enhanced the storage tank management program by allowing real-time updates and data tracking using a custom-developed GIS mapping system.

**HAZARDOUS BUILDING MATERIALS MANAGEMENT**

**MSE** has conducted over 10 hazardous building materials surveys for asbestos-containing materials, lead-based paint, and mold at MCO and OEA to support building demolitions and renovations. These surveys include collection of suspected hazardous building materials by licensed personnel for analysis by an accredited laboratory. **MSE** also provides asbestos clearance monitoring during abatement activities to ensure clean air clearances for construction and containment demolition.



**ENGINEERING DESIGN AND CONSTRUCTION ADMINISTRATION**

**MSE** completed necessary investigations to define the limits of Category I non-friable asbestos-containing material found within the mastic used on the insulation for HVAC ducts, chilled water piping, and storm drains located in MCO Terminal B, West Ticket Lobby. Following the onsite investigation, **MSE** generated an asbestos abatement design-bid package including design Satellite accumulation area inspected semi-annually.

**MSE** assisted in bid advertisement, contractor validation, bid review, and final contractor selection. During insulation abatement and reinstallation, **MSE** provided construction contractor oversight/administration including review of contractor work by a professional engineer to ensure work was performed per design plans and specifications and asbestos air monitoring. **MSE** also provided public relations support to GOAA for response to worker or public complaints during the construction process. To complete the project, **MSE** provided as-built drawings defining any deviations from the design plans.

**ENVIRONMENTAL DATA MANAGEMENT SYSTEM SUPPORT**

In addition to incorporating data management programs into GOAA's SPCC, SWPPP, and environmental compliance audit tracking programs, **MSE** completed a comprehensive study of the existing environmental permit, data tracking processes, management systems, and recommended a comprehensive electronic data management system that would support GOAA stakeholders with timely and cost-effective environmental permit and data tracking.

## Confidential Global Security Company, Corporate Environmental Services Contract

*MSE has completed environmental engineering, environmental compliance, health and safety, and facilities support services for this confidential global security company that is a recognized designer, developer, and manufacturer of precision engagement aerospace and defense systems for the United States and allies. The programs and tasks completed are described below.*

### HAZARDOUS AND SOLID WASTE MANAGEMENT

- Weekly inspections with recommended corrective actions for six 90-day hazardous waste storage areas, two waste storage facilities, satellite waste accumulation areas, and waste consolidation pads.
- Weekly waste inventory (hazardous, universal, and controlled) tracking and reporting.
- Permit and RCRA assessments for compliance with permit requirements and state/federal regulations.
- Regulatory compliance applicability reviews for proposed regulations and operational processes (research, regulatory coordination, site reconnaissance, and summary letter to stakeholders).
- Assessed waste treatment disposal and storage facility operations, conditions, quality control programs, regulatory status, and financials for inclusion in approved vendors list.

### STORAGE TANK MANAGEMENT

- Performed annual audits of the facility tank management program.
- Completed annual review and revision of SPCC plan including review of tank and container inventories.
- Inspected tanks for compliance with EPA, FDEP, SPCC plan, and internal procedures monthly. Included site reconnaissance, inspection forms, record keeping, notification of recommendations/findings, and submittal of work order requests.
- Completed closure, removal, and installation of multiple petroleum storage tanks per FAC 62-761, 62-762 and 62-770. Activities included agency notifications, tank removal, structural demolition, waste characterization and disposal, installation of groundwater monitoring wells, soil and groundwater sampling and analysis, development and submittal of installation, closure, and contamination assessment reports and certifications.
- Supported annual Orange County Environmental Protection Division regulatory inspections.

### HAZARDOUS BUILDING MATERIALS MANAGEMENT

- In preparation for demolition of a 65-acre property in Orlando used for electronic systems manufacturing, **MSE** reviewed equipment and structures within property boundary for presence of hazardous materials/residue. Assessed seven buildings and over 100 equipment systems for environmental concerns associated with the use and storage of hazardous materials. Developed decontamination and decommissioning plans for the client for implementation.
- Provided onsite staff for over 10 years for hazardous material tracking database management.
- Conducted annual inspections and updates to the facility asbestos management plan.
- Updated client's toxic management plan as processes and/or procedures were modified.
- Completed multiple PCB sample collection projects to define management and disposal protocols.

### ENVIRONMENTAL COMPLIANCE AND TRAINING

- Performed EPA Method 9 visible emissions tests for permitted sources and air inventory assessments per State of Florida Air Permit requirements.
- Provided onsite technical support with proprietary environmental information system databases to aid in development of annual air emission operating reports, permit data management requirements, and internal/external compliance assessments. Daily tasks included data entry, data validation, system error correction, and reporting.
- Conducted multiple site wide wastewater discharge survey to define industrial discharge inventories, quantities, and quality.

### SECTION 3: PAST PERFORMANCE

- Assessed annual wastewater program and documented compliance with Orlando Utilities Commission Wastewater Discharge Permit, state SOPs, and client's policies/procedures including recommendations for wastewater sampling protocol, analyses, equipment calibration, pretreatment operations, discharge monitoring reports, and corrective action.
- Submitted Orlando Utilities Commission permit renewal applications and Wastewater Baseline Certification Statement & Industrial Pretreatment Monitoring Report.
- NPDES MSGP monthly inspections, SWPPP revisions, recordkeeping, annual program evaluations, quarterly visual sampling of five outfalls, support of the client's pollution prevention team, release tracking, progress reports, input of work order requests, contractor and tenant communication for corrective action resolution, and site-specific AutoCAD figure revisions.
- Completed biennial wastewater/stormwater point source assessment of the Orlando facility for compliance with NPDES MSGP, including review of exterior buildings and operations to define the status of known, observed piping and/or potential pollution sources.
- Modeled and tracked impervious surface construction to support agency permits associated with stormwater storage and treatment capacities including design/build and certifications of stormwater conveyance systems associated with helicopter pad installation, construction of security access roads, and materials storage areas.
- Completed numerous compliance multimedia sampling activities to support NPDES MSGP and construction permits, local municipal wastewater discharge permit, hazardous/industrial waste characterization, radioactive media contamination assessments, hazardous material release assessments, groundwater and soil assessments, lead and chrome-based paint assessments, PCB article/debris management, and groundwater wells.
- Developed and delivered onsite and classroom training to support environmental, safety, and health programs for 200 manufacturing operations staff and contractors including HAZWOPER, wastewater treatment systems, confined space entry, hazardous materials/solid waste management, respiratory protection, powered industrial equipment, lockout hazardous energy, first aid and CPR, and blood borne pathogens.

### ENVIRONMENTAL CONTAMINATION ASSESSMENTS

- Provided extensive facility investigation, remedial investigation and design, human health risk assessments, permitting, and turnkey construction for chlorinated solvents in soil and groundwater. Included multiple phases of soil and groundwater assessments, finite-level source refinement investigations, fate and transport modeling; sheet pile design, wastewater treatment design; chemical oxidant demand, bio-availability, and human health risk impact studies; construction permitting, and turnkey construction. Implementation of sustainability reviews and innovative technology analysis saved over \$1 million as compared to engineering estimates by others, and the project was completed two years ahead of schedule.
- Completed real estate transfer due diligence assessments according to ASTM Standard Practice E1527 and E1528 for leased, decommissioned, and purchased parcels. Project scope included site reconnaissance, compliance and regulatory reviews, and interview of representative personnel from the subject and adjoining properties. Soil and groundwater quality assessment activities were completed per ASTM E1903-11 as necessary.



### **Aviation Advisory Services - Westchester County Airport**

**ASG** is providing advisory services to the office of the White Plains, New York, County Executive in support of operations, management, planning, and environmental reviews. **ASG** supports the County Executive with recommendations on planning and development, regulatory reviews, and environmental documentation. **ASG** is supporting the County through its master planning process providing peer reviews of scoping, forecasts, and alternatives analysis. A key part of these services is defining environmental reviews for both federal (NEPA) and state processes. **ASG** is also assisting the County with technical reviews of proposals for professional services and providing industry insight.

### **Airport Modernization and Enhancement Program, Coleman A. Young International Airport**

**ASG** has been retained by the City of Detroit to assist with the modernization and revitalization of the Airport. **ASG** completed a vision plan for the City to modernize and redevelop the Airport, strengthen its financial position, and accommodate future activity. They assisted City staff in establishing a development strategy that is tailored to the needs of the City and maintains compliance with FAA regulations and standards pertaining to grant assurances, planning, and environmental requirements. **ASG** presented the plan at a joint meeting with the FAA Great Lakes ADO and Michigan Department of Transportation Aviation Division representatives, who approved the approach and authorized the City to begin detailed planning efforts.

### **JFK Redevelopment Program**

**ASG** has been providing environmental and planning services to PANYNJ to assist with the JFK Redevelopment Program. **ASG's** services include advising staff on planning and NEPA strategy, which involves assessing the potential impact of terminal and airside design changes to the overall program. FAA coordination of design issues is a critical effort to ensure compliance with NEPA review and overall schedules to meet construction start requirements.



### **Palm Beach County Division of Airports**

Over the course of more than two decades, **LLW** has periodically represented the Palm Beach County Department of Airports in connection with environmental, DRI, and growth management issues affecting airport facilities. Along with securing the DRI Development Order, **LLW** assisted in obtaining state and federal environmental permits from the SFWMD, FDEP, and the USACE for the North County General Aviation Airport, including Environmental Resource and 404 Clean Water Act Permits. The environmental issues involved preserve and wetlands areas, as well as endangered, threatened, and listed species issues.

### **Panama City Airport Environmental Counsel**

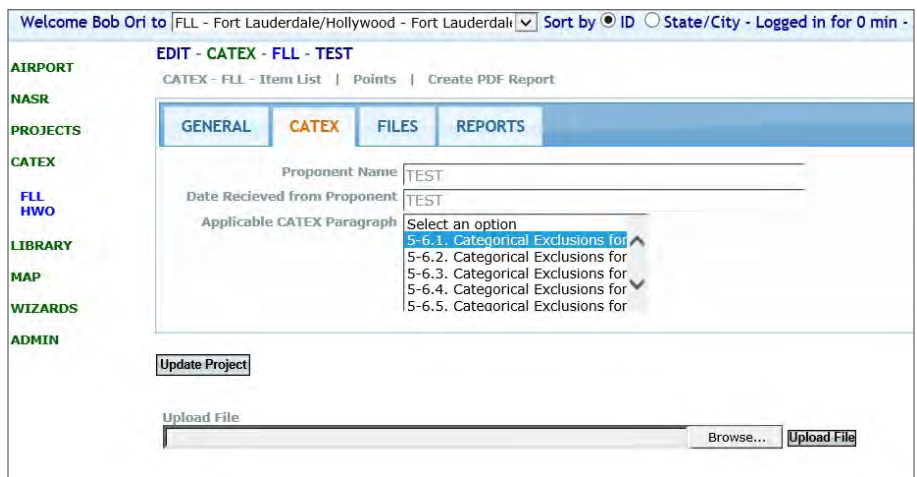
**LLW** served as environmental counsel for the Panama City-Bay County Airport and Industrial District for more than a decade, culminating in local, state, and federal approvals of the relocation of the Panama City Airport, which facilitated a major expansion of the Airport's capabilities. **LLW** provided advice and counsel to the Airport District on the development of an EIS by the FAA for the relocation and permitting of wetland impacts by the FDEP and the USACE for the new airport site. This advice included dealing with issues arising under the Endangered Species Act, as well as concerning the creation of an optional sector plan pursuant to Section 163.3245, Florida Statutes.

### City of Dania Beach, et al. v. USACE and Broward County, Florida, U.S. District Court for the Southern District of Florida

**LLW** successfully represented Broward County in the District Court for the Southern District of Florida in its defense of claims brought under the Clean Water Act, NEPA, and the Administrative Procedure Act in connection with a USACE permit for wetland impacts necessary for the south runway project at FLL. **LLW** was involved with the project team in the permitting and development of the record for the permit actions. That project consists of an approximately \$800 million effort to construct a full south parallel runway. **LLW** and the USACE were successful in defeating a motion for preliminary injunction to halt the project. The matter was decided on summary judgment in favor of the County and federal defendants. The ruling was affirmed on appeal. The opponent, City of Dania Beach, also challenged the County in state court on a pre-existing judgment, seeking to halt the project. That matter has been settled.

### BCAD Airport Data

**PTI's** iALP is a web-based tool that allows BCAD staff to view, manage, analyze, maintain and update airport data for all aviation facilities. It also contains an interface to the FAA's OE/AAA system that allows direct input of proposed on-airport development, significantly reducing FAA review times. BCAD's iALP tool also includes Access to Airports GIS and other data for viewing, measuring and coordinate location purposes on any computer without any purchase of software, as well as an easy to use interface for BCAD staff that allows the capabilities of a CAD package without the intense learning curve associated with a CAD package. All FAA analysis criteria has been programmed into the tool to allow the Authority staff to easily view the impacts of the proposed development without having to rely on the FAA and/or interpretation of FAA criteria documentation. Graphical data has been standardized so that all departments/consultants will be utilizing the same format for any efforts undertaken which minimizes the data maintenance efforts. This includes land use, noise and other environmental data and permitting processes.



### Deerfield Beach Public Works Facility

**KCI** was the engineering consultant for the design and development of a 20-acre City of Deerfield Beach Public Works Facility. **KCI** provided the design of the water/wastewater systems, drainage and stormwater management systems, landscape architecture, and overall site design for this former landfill site. **KCI** was also involved in the permitting, preparation of contract documents and specifications, bidding, and negotiating services and construction inspections for the project. Other notable tasks included landscape and irrigation design, preparation of Phase 1 and 2 environmental site assessments, preparation of an excavation and disposal plan, brownfield designation, hazardous materials facility permitting, groundwater monitoring plan development, and project management services for the pond liner and methane gas collection system design.

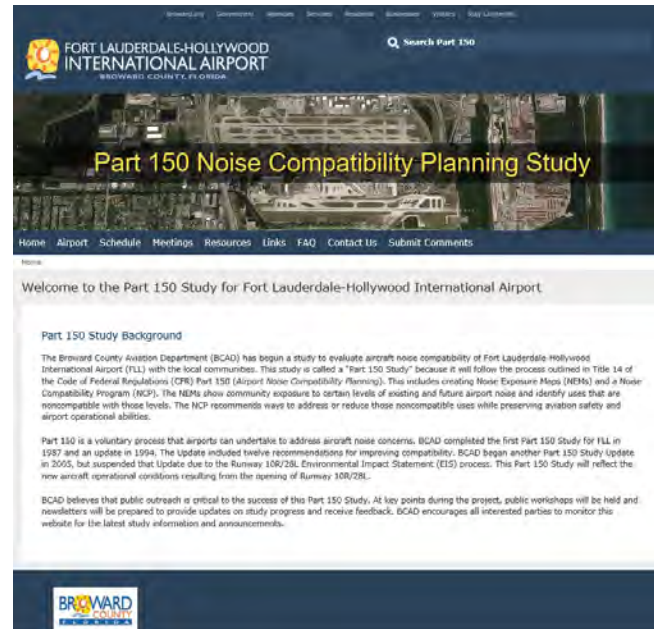
### City of Fort Lauderdale “One Stop Shop”

**KCI** prepared civil engineering, landscaping, and irrigation plans for the City of Fort Lauderdale’s future “One Stop Shop” located on the north side of Sistrunk Boulevard between NW 18th Avenue and NW 19th Avenue. The site is approximately four-acres in size and will contain parking for employees and the public. **KCI** prepared engineering drawings for the demolition of the existing site, paving, grading, storm drainage, potable water, sanitary sewer, pavement markings, striping, and all necessary details for site construction. In addition, site landscaping and irrigation design was performed. Off-site engineering design included driveway connections, potable water main connections, and drainage analysis.

**KCI** obtained all necessary state, county, and local engineering permits. Permits were obtained from the City of Fort Lauderdale Engineering Department, the City of Fort Lauderdale Building Department, the Broward County Department of Planning and Environmental Protection, the Broward Public Health Unit, and the SFWMD. **KCI** also played a role in developing the cost estimate bid packages for construction of the project.

### Broward County Department of Airports: FLL Part 150 Noise Study

**PTI** developed and continues to support the internal and public website for the Part 150 Noise Study. The site collects and disseminates non-graphic and GIS data that is associated with meetings and the analysis portions of the study.



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In November 2019, FLL was ranked 10th in international traffic with more traffic than the following airports combined

**La Guardia**

**Phoenix**

**Baltimore**

**Tampa**

**Salt Lake  
City**

**Chicago  
Midway**

**4**

Specialized Experience  
and Capabilities



## Section 4

# Specialized Experience and Capabilities

### 4.1 Experience with Regulatory Agencies

Over the past 50 years ESA has grown into a broad-based, employee owned, environmental consulting and planning firm with core values that promote sustainability, effective problem-solving, and delivering integrated solutions. We assist clients in the earliest phases of project conception, through environmental review and regulatory approval, to project implementation and compliance. As the projects have grown more complex and controversial, we have stayed in the forefront by deepening key technical service capabilities that enable us to lead the industry in scientific thought and innovative project design.

ESA blends sound science and technical excellence within an analytic framework that brackets project issues. ESA partners with agencies, stakeholders, and clients to assess a project's potential and analyze its impacts. We work collaboratively through integrated, diverse teams to bring a comprehensive view with an eye for the details. With thorough understanding of environmental conditions, design processes, and agency requirements we've helped more than 3,500 public clients throughout the country plan, design, permit, and implement the full range of projects.

We routinely work with federal, state and local agencies; community developers; municipalities; and public stakeholders to provide meaningful and enduring solutions and products that not only deliver results, but raise the industry standard. Our scientists and technical specialists bring critical thinking and measured analysis to guide successful policy development, project planning, and solutions. We provide complex analysis, modeling, problem-solving, community outreach, and environmental compliance services. What sets us apart from other firms is an interdisciplinary approach, scientific rigor, and a thorough understanding of the regulatory framework. A small sample of our agency experience is detailed in this section.

ESA plays a key role in successful project completion by assisting clients with early identification and resolution of environmental issues. We take an interdisciplinary approach to environmental management that has consistently helped clients achieve project objectives in an environmentally sound manner and within a reasonable time-frame. ESA staff have worked closely with key agencies for decades, facilitating invaluable working relationships with regulatory staff which leads to more constructive negotiations and the ability to carry out project plans in a predictable and cost effective manner. Actively engaged in a variety of state and federal rulemaking and update processes, ESA staff stay ahead of statutory and regulatory changes as well as legal decisions that impact environmental approval processes. ESA's comprehensive approach and innovative mitigation strategies have allowed us to gain stakeholder concurrence, facilitate regulatory approvals, and minimize project costs.

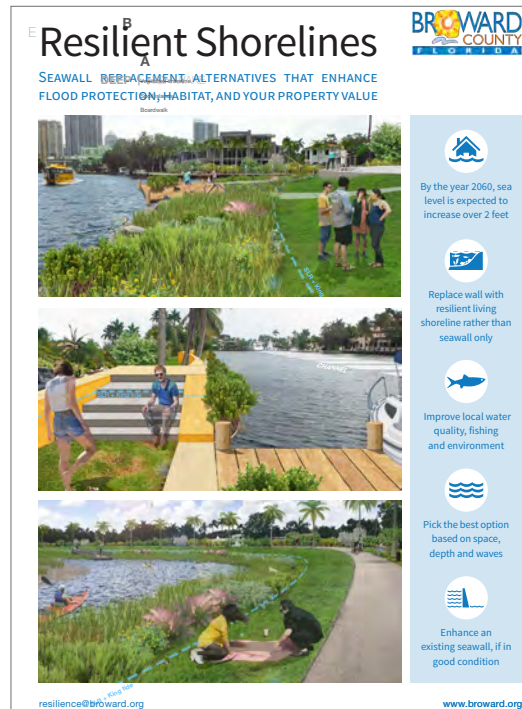
**South Florida Water Management District and Florida Department of Environmental Protection**

Actively engaged in a variety of State and Federal rulemaking and update processes, ESA scientists stay ahead of regulatory changes and knowledgeable of statutory and legal decisions that impact permit processes. With a number of former regulators on staff, we routinely permit projects through FDEP and its five Water Management Districts. We've permitted hundreds of projects within the SFWMD boundaries over the past decades, facilitating invaluable working relationships with regulatory staff. Our knowledge of the rules allows us to approach each permitting assignment from a position of established expertise. We have earned the respect of the reviewers which leads to more constructive negotiations and the ability to carry out project plans in a predictable and cost-effective manner. Whether it involves innovative mitigation concepts such as receiving stormwater credits from causeway removal or challenging impacts in restricted watersheds or basins, we bring the expertise to permit even the most challenging projects to mutually beneficial solutions. Due in part to our unmatched regulatory experience, we are a trusted consultant for all five water management districts and FDEP which further enhances our agency relationships and the trust of our reviewers.

**Broward County Department of Environmental Protection and Growth Management (BCEPGMD) / Water and Wastewater Services (BCWWS)**

ESA has a long history of successful projects in Broward County. Not including work conducted for BCAD, ESA has completed a number of assignments ranging from a Boat Speed Study for Manatee Protection Ordinances to an urban tree canopy analysis. Recently, ESA completed the development of a program to promote living shorelines to facilitate coastal resiliency across Broward County. For this project, the BCEPGMD was ESA's client; however, the project deliverables were reviewed and approved by the regulatory arm of that department during the process. ESA worked with Broward County to develop a program that promotes living shorelines and seawall enhancement alternatives as a way to increase coastal resiliency. The program developed shoreline protection solutions that created habitat and increased design elevations to combat sea level rise for a variety of residential

and municipal shorelines while preserving viewshed and water access. The ESA Team created renderings, brochures, a technical report and presentations to be used by the County in community outreach events. These documents were designed to lead the resident or community leader through the permitting process and discuss pricing options for different project elements.



Specific to BCWWS, the ESA team brings local experience working with all departments from Potable Water, Sanitary Sewer Water, Stormwater and Water Quality. KCI (formerly Keith & Schnars) designed potable water system and pump stations, as well as sanitary sewer systems for several Broward County municipalities, including the City of Fort Lauderdale. KCI brings local experience working with BCWWS on projects with elements including stormwater Nutrient Loading Analysis, Drainage Basin/ Watershed modeling and floodplain analysis, Stormwater Pump Station Design, Pond Siting and Sizing, Pipe Sizing Calculations/Modeling and Spread Analysis, Master Drainage Study, Conceptual/Master Surface Water Management System Design, and permitting. For the Seminole Casino, Coconut Creek (Broward County, Florida) 106 Acre Master Drainage Improvement project KCI developed the master ICPR model and calibrated it against the known historic events and determined the cause of flooding. Control structures were modified and pipes were upsized in affected segments. Permit mods were secured from Broward County EPGMD and Cocomar local drainage districts.

### **Florida Department of Transportation**

ESA works with FDOT in a variety of capacities that range from airport client grant support to design-build transportation projects to disaster response. With projects in all of the FDOT districts, as well as in-house personnel at Florida's Turnpike Enterprise, ESA is a trusted contractor to FDOT. For our airport clients, we routinely support FDOT grants (from application through close-out) which for many of our GA clients, often represents the primary (or even sole) funding for their projects. Recently, ESA was selected by FDOT Central Office for the Statewide Aviation Support Consultant Contract. This contract, which provides on-call support for the FDOT Aviation Office (AO) includes, but is not limited to: statewide aviation system and strategic planning, economic development and financial services, aviation operations program support, Florida Aviation Database (FAD) services, and comprehensive environmental services. The environmental services covered under this contract include stormwater, NEPA, Part 150, Part 161 Notice and Approval of Airport Noise and Access Restrictions, wildlife hazard, and other support as needed. ESA is currently assisting the FDOT in determining the status of wildlife hazard programs at all of Florida's 102 public use general aviation airports in efforts to guide a statewide program to enhance operational safety throughout the state.

### **Federal Aviation Administration**

ESA has extensive experience facilitating NEPA reviews, leading Part 150 noise studies and securing planning approvals for our airport clients due, in no small part, to our reputation and relationships with FAA personnel at a national, regional and local level. We have processed more environmental documents through the Orlando Airports District Office (ADO) during the past 5 years than any other firm. Whether we are evaluating the restructuring of airspace, as we did for the Southwest Florida International Airport, or expediting "emergency" approvals for critical economic airport development projects at Orlando Melbourne International Airport, the ESA Team advocates for our clients through a comprehensive understanding of the complex regulatory airport environment. ESA is highly respected for our ability to resolve a wide range of complex issues under challenging circumstances and are routinely called upon to participate in expert FAA and industry panels on noise

and environmental policy and topics. We have the ability to strike an effective balance between the goals and objectives of Airport Sponsors and those of the agencies and are known for our ability to get the job done. Our key personnel have worked for a many years with the FAA's team assigned to FLL and HWO – Vernon Rupinta, Marisol Elliott, and Peter Green; and we have relationships with the ADO Management of Bart Vernace, Rebecca Henry, and Juan Brown extending back more than 20 years. Our relationships within in the FAA's Atlanta regional office, and with the FAA's headquarters Office of Airport Planning and Environmental (APP-400) and Office of Environment and Energy (AEE) allow us to elevate issues and concerns and maintain a pulse on key issues within the airport and air traffic regulatory environment.

### **Federal Emergency Management Agency (FEMA)**

Because of the coastal location of many Florida airports, floodplain impacts are a common issue that arises in everything from mater planning through design and permitting to construction. We routinely support airport clients with floodplain mapping, permitting and innovative solutions to offset floodplain impacts. We have also supported several municipal clients, including Osceola County, with their FEMA map updates and revisions as well as FEMA funding requests. For Collier County, this included support for successfully securing \$11 million in Federal funding for restoration of Collier County Beach to replace sand lost during Hurricanes Katrina, Rita and Wilma. For Indian River County, ESA supported the County's Conservation Lands Program by developing the requisite grant application and Fuel Management Plan in order to secure FEMA Hazard Mitigation Grant Program (HMGP) funding for over 20 County (and County municipalities') managed lands, in addition to multiple parcels owned by private landowners. In addition to working with FEMA programs, ESA staff have supported FEMA directly through the STARR JV/FEMA, Coastal Flood Hazard Studies, Regions I, V, and X. Assignments under this contract included QA/QC of data collection, field verification of proposed transects for flood mapping analysis along shorelines, analysis for input parameters to wave and surge models and analysis of model results to bring the offshore processes onshore at representative transects. Wave and water level model grids were used to calculate and map flood hazard areas along the shorelines of coastal counties throughout these three regions.



## 4.2 Public Meetings and Communication

The ESA Team's public involvement skills are considered among the best available in the aviation environmental and noise consulting industry. Airport clients throughout the nation have repeatedly turned to ESA on controversial projects when public confidence in the process was at an all-time low. Each time, we have succeeded in getting the processes back on track and ensuring the requirements of the federal or state regulations were met. Examples of our capabilities to address public concerns on highly controversial projects include our work on the O'Hare Modernization Program EIS, and the ATL, LAX, JFK, LGA, and RSW Part 150 studies.

We believe that to ensure the success of any environmental planning and management services project, all concerned stakeholders must be actively involved in the process. We have provided successful public involvement and outreach programs at numerous airports that comply with, and often surpass, FAA community outreach guidance and requirements. For example, our extensive outreach and creative approach to public involvement at RSW led to being awarded the 2013 Noise Mitigation Project of the Year. Our FLL Part 150 public workshops and Technical Committee (TC) meetings are prime examples of our team's abilities to effectively conduct outreach with large groups of stakeholders. Each meeting and workshop format is customized to ensure that the respective stakeholders have adequate opportunity to voice their concerns and provide maximum opportunity for interaction with the project team.

The ESA Team is specifically structured to provide significant depth in experienced senior-level public outreach professionals. Not only are these professionals highly regarded in the aviation industry for their technical capabilities, but they have extensive experience in carrying out controversial projects in highly charged environments. ESA specifically selects staff based not only upon their technical capabilities, but on their ability to maintain composure and clearly communicate technical aspects to the public as well as elected officials. As a result of ESA's extensive experience in effectively communicating with the public, our staff are often called upon to speak at national and international aviation conferences regarding aircraft noise, land use compatibility planning, and other environmental issues. These organizations include, but are not limited to, the Airports Council International-North America, American Association of Airport Executives, the Florida Airports Council, the California Airport Land Use Consortium, and the University of California at Berkeley and Davis.

The ESA Team's approach to public and stakeholder outreach focuses on clear, consistent and transparent communication to ensure a high level of public trust in the process. ESA routinely monitors traditional print and other media along with websites and social media and blogs that are often where public concern and controversy begin to gather momentum. Keeping a finger on the pulse of various interest groups up to and including municipalities, makes it possible to identify emerging issues and concerns. This allows our clients to be proactive, rather than constantly being in a reactive mode if issues or concerns arise.



### 4.3 Knowledge and Understanding of FAA Standards and Procedures

ESA is widely recognized as a national leader and expert in aviation planning, noise and environmental planning. We serve key technical roles in many industry organizations and constantly monitor the evolution of the FAA regulatory environment. ESA is currently providing on-call services to more than 60 airports nationwide and we are highly experienced in working within FAA protocols for project execution and documentation from planning through the final delivery process, including construction. We are experts in not only navigating the regulatory processes, but provide input as that process evolves.

We regularly work with the full range of FAA guidance documents:

- Advisory Circulars (ACs),
- Orders,
- Grant Assurances,
- Grant Application processes and reporting,
- Program Guidance Letters,
- Engineering briefs,
- Interim Guidance documents and memorandums, and
- Standard Operating Procedures.

We are experts in the regulatory environment and understand the FAA grant processes, the related assurances, and the specific requirements for reporting that must be adhered to in order to keep the funds streaming. ESA is actively assisting the FAA in developing national noise policy through the national Policy, Engineering, Analysis, and Research Support (PEARS II) contract. In addition to supporting FAA headquarters on research and policy development, this contract involves supporting procedure implementation and other projects for each of the FAA's three Service Centers. This work provides invaluable insight into the evolution of national policy on the airport and aircraft noise environment. ESA has also played a critical role in both leading and supporting research conducted under the TRB Airport ACRP. Julie Sullivan served as lead expert for ACRP Report 122: *Innovative Airport Responses to Threatened and Endangered Species*. Most recently, Autumn Ward supported ACRP Research Report 209: *Integrating Sustainability Planning and the Environmental Review Process*. Working closely with the FAA through the development of this research provides unique insights into industry best practices and the direction of future FAA regulatory guidance.

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North Perry Airport was created during World War II - in 1940 the Navy rented 400 acres of land from Henry Perry and turned it into an emergency grass landing strip.

By 1943 the Navy purchased 640 square acres of land from Mr. Perry. They opened it as a training station for pilots from Miami's naval base to learn how to land on Navy aircraft carriers.

# 5

## Workload of Firm



## Section 5

# Workload of the Firm

### Completed and Active Aviation Projects

As professional consultants, our customer service approach to your project is simple - we will provide BCAD with the most qualified team to provide Environmental Planning and Acoustical Consulting Services as outlined in the solicitation. When dedicating resources for multiple projects, our team has a policy of reviewing our current backlog before proposing on new projects. We will “No Go” a project if we do not have the resources or time to meet the client’s project schedule. The fact that we are submitting our qualifications for this contract is our commitment to BCAD that we have the resources and capacity to take on and successfully complete these services. We have dedicated an excellent Project Manager and a qualified team of professionals to not only successfully deliver these services, but to do so in a manner that inspires the utmost confidence in the quality of our work products.

ESA has more than 500 current environmental staff including more than 75 with airport project experience and we have managed, as the prime, the successful completion of a range of aviation-related projects nationwide. We have also provided references in Section 3 that demonstrate that we not only have the resources to lead some of the most challenging projects in the nation, we continually strive to exceed our Clients’ expectations. A list of similar projects, both completed and active, over the last five-year period is presented below. This list represents a small portion of ESA’s work at airports nationwide over the past five years. The firm has worked on an additional 150 projects for aviation clients including land use planning, natural resources and wildlife management, and cultural resources tasks. Additionally, ESA is on-call to more than 60 airports nationwide for a full range of environmental and acoustical services.

PROJECT NAME & AIRPORT OR AGENCY	COMPLETION DATE	BRIEF SCOPE OF WORK
<b>Noise Consulting Services and Environmental Support Services</b> Tampa International Airport (FL) (TPA), Tampa Executive Airport (FL) (VDF)	2026	<ul style="list-style-type: none"> <li>• Comprehensive Noise on-call as needed services</li> <li>• 14 CFR Part 150 Noise Exposure Map Update</li> <li>• Wildlife Hazard Support</li> <li>• NEPA and permitting support</li> <li>• Extensive public outreach</li> </ul>
<b>Airport Planning, Environmental Planning and Noise Consulting Services</b> Naples Airport (FL) (APF)	2025	<ul style="list-style-type: none"> <li>• Comprehensive planning, environmental and noise on-call as needed services</li> <li>• Airport MPU</li> <li>• Wetland mapping</li> <li>• Noise office support</li> <li>• 14 CFR Part 150 Study</li> <li>• NEPA and permitting support</li> <li>• Wildlife hazards</li> <li>• Sustainability and resiliency</li> <li>• Environmental program management support</li> </ul>
<b>Environmental Planning Services</b> PANYNJ (NY) (JFK, LGA, EWR, TEB)	2024	<ul style="list-style-type: none"> <li>• Comprehensive environmental on-call as needed services</li> <li>• JFK runway closure NEPA support</li> </ul>
<b>FDOT Statewide Aviation Support</b> (FL) (Statewide)	2024	<ul style="list-style-type: none"> <li>• Comprehensive state system on-call as needed services</li> <li>• Planning, environmental and program management support</li> <li>• Wildlife Hazard Support</li> <li>• JACIP support</li> </ul>

SECTION 5: WORKLOAD OF THE FIRM

PROJECT NAME & AIRPORT OR AGENCY	COMPLETION DATE	BRIEF SCOPE OF WORK
<b>Environmental Planning Services</b> Lakeland Linder International Airport (FL) (LAL)	2024	<ul style="list-style-type: none"> <li>• Comprehensive environmental and noise on-call as needed services</li> <li>• Comprehensive NEPA Support</li> <li>• NEPA compliance for more than a dozen projects airport-wide</li> <li>• Noise support</li> <li>• Mitigation permitting and implementation</li> <li>• Land management</li> <li>• Environmental program management support</li> </ul>
<b>FAA Policy Engineering, Analysis and Research Support (PEARS II)</b> FAA (Nationwide)	2023	<ul style="list-style-type: none"> <li>• National policy, noise and NEPA support on-call as needed services</li> <li>• NEXTGen Procedure NEPA support</li> <li>• Technical analysis and research</li> </ul>
<b>Environmental Planning and Noise Consulting Services</b> Orlando International Airport (FL) (MCO) and Orlando Executive Airports (FL) (ORL)	2022	<ul style="list-style-type: none"> <li>• Two 14 CFR Part 150 Studies for MCO</li> <li>• 14 CFR Part 150 Study for ORL</li> <li>• Comprehensive NEPA support</li> <li>• Residential sound insulation program</li> <li>• School sound insulation program</li> <li>• Noise office support</li> <li>• Metroplex support</li> <li>• Noise monitoring support</li> <li>• 1,342 Acre East Airfield Development EA</li> <li>• New South Terminal EA</li> <li>• New Large Aircraft EA</li> </ul>
<b>Airport Planning and Environmental Planning Services</b> Melbourne International Airport (FL) (MLB)	2022	<ul style="list-style-type: none"> <li>• Comprehensive environmental on-call as needed services</li> <li>• Airport- wide NEPA for 15 projects including aircraft manufacturing complex, 747 MRO facilities, research facilities, and fixed base operator facilities</li> <li>• Comprehensive MPU</li> <li>• AGIS mapping</li> <li>• Boundary Survey and Exhibit A</li> <li>• Extensive stakeholder outreach program</li> <li>• Sustainability</li> </ul>
<b>Planning, Noise and Environmental Support</b> Martin County Airport (FL) (SUA)	2022	<ul style="list-style-type: none"> <li>• Comprehensive Planning, Noise and Environmental on-call as needed services</li> <li>• Environmental support</li> <li>• Sustainability and resiliency</li> <li>• Extensive public outreach program</li> </ul>
<b>Planning, Noise and Environmental Support</b> Albert Whitted Airport (FL) (SPG)	2022	<ul style="list-style-type: none"> <li>• Comprehensive Planning, Noise and Environmental on-call as needed services</li> <li>• Comprehensive MPU</li> <li>• Environmental support</li> <li>• Sustainability and resiliency</li> <li>• Extensive public outreach program</li> </ul>
<b>Noise Consulting Services and Environmental Support</b> Miami International Airport (FL) (MIA), Miami Executive Airport (FL) (TMB), Opa Locka Airport (OPF)	2022	<ul style="list-style-type: none"> <li>• Comprehensive Noise and Environmental on-call as needed services</li> <li>• Noise office support</li> <li>• Wildlife Hazard Assessments and Management Plans</li> <li>• Comprehensive NEPA Support</li> <li>• Extensive Public Outreach</li> </ul>
<b>Environmental Planning and Noise Support</b> Westchester County Airport (NY) (HPN)	2021	<ul style="list-style-type: none"> <li>• Water Quality Assessment</li> <li>• Noise and Aircraft Noise and Operations Monitoring System (ANOMS) support</li> <li>• Air Quality assessments</li> </ul>

PROJECT NAME & AIRPORT OR AGENCY	COMPLETION DATE	BRIEF SCOPE OF WORK
<b>Master Plan Noise Support and 14 CFR Part 150 Noise Exposure Map Update</b> San Antonio (TX) (SAT)	2021	<ul style="list-style-type: none"> <li>• Alternatives Analysis</li> <li>• Noise Exposure Map</li> <li>• Extensive public outreach program</li> </ul>
<b>Runway Extension EA</b> North Palm Beach County Airport (FL) (F45)	2021	<ul style="list-style-type: none"> <li>• Project planning</li> <li>• Comprehensive NEPA documentation</li> <li>• Permitting</li> </ul>
<b>14 CFR Part 150 Noise and Land Use Compatibility Study Update</b> Fort Lauderdale International Airport (FL) (FLL)	2020	<ul style="list-style-type: none"> <li>• Noise Exposure Map</li> <li>• Noise Compatibility Program</li> <li>• Extensive public outreach program</li> <li>• Metroplex support</li> </ul>
<b>14 CFR Part 150 Noise and Land Use Compatibility Study Update</b> (NY) (JFK)	2020	<ul style="list-style-type: none"> <li>• Noise Exposure Map</li> <li>• Noise Compatibility Program</li> <li>• Extensive public outreach program</li> </ul>
<b>14 CFR Part 150 Noise and Land Use Compatibility Study Update</b> (NY) (LGA)	2020	<ul style="list-style-type: none"> <li>• Noise Exposure Map</li> <li>• Noise Compatibility Program</li> <li>• Extensive public outreach program</li> </ul>
<b>Planning and Environmental Support</b> St. Pete Clearwater International Airport (FL) (PIE)	2020	<ul style="list-style-type: none"> <li>• Comprehensive MPU</li> <li>• NEPA for redevelopment of 130 Acre Airco Parcel</li> <li>• Noise Analysis</li> <li>• Permitting support</li> </ul>
<b>ACRP 209 - Integrating Sustainability Planning and the Environmental Review Process</b>	2019	<ul style="list-style-type: none"> <li>• NEPA support</li> <li>• Sustainability strategies</li> <li>• Surveys</li> <li>• Tool development</li> </ul>
<b>Los Angeles International Airport Community Noise Roundtable Facilitator</b> LAWA (CA) (LAX)	2019	<ul style="list-style-type: none"> <li>• Airport community roundtable facilitator</li> <li>• Facilitated meetings</li> <li>• Meeting review</li> <li>• Special presentations</li> </ul>
<b>New Air Service Part 139 Certificate EA</b> Paine Field (WA) (PAE); United, Southwest and Alaska Airlines	2019	<ul style="list-style-type: none"> <li>• Comprehensive NEPA support</li> <li>• Noise</li> <li>• Extensive public outreach program</li> <li>• Environmental program management</li> </ul>
<b>New Cargo Logistics Hub EA</b> San Bernardino International Airport (CA) (SBD)	2019	<ul style="list-style-type: none"> <li>• Comprehensive NEPA support</li> <li>• Extensive Noise and Air Quality support</li> <li>• Extensive public outreach program</li> </ul>
<b>New Amazon Cargo Logistics Hub EA</b> Cincinnati Airport (OH) (CVG)	2019	<ul style="list-style-type: none"> <li>• Comprehensive NEPA Support</li> <li>• Permitting support</li> <li>• Project facilitation</li> <li>• Program management</li> </ul>
<b>EIS</b> Norfolk International Airport (VA), (ORF)	2017	<ul style="list-style-type: none"> <li>• New runway</li> <li>• Operational evaluation</li> <li>• Airspace evaluation</li> <li>• Noise analysis</li> <li>• Extensive public outreach program</li> </ul>
<b>14 CFR Part 150 Noise and Land Use Compatibility Study Update</b> Melbourne International Airport (NY) (MLB)	2016	<ul style="list-style-type: none"> <li>• Noise Exposure Map</li> <li>• Noise Compatibility Program</li> <li>• Extensive public outreach program</li> </ul>
<b>F14 CFR Part 150 Noise and Land Use Compatibility Study Update</b> San Francisco International Airport (CA) (SFO)	2016	<ul style="list-style-type: none"> <li>• Noise Exposure Map</li> <li>• Noise Compatibility Program</li> <li>• Public outreach program</li> </ul>

PROJECT NAME & AIRPORT OR AGENCY	COMPLETION DATE	BRIEF SCOPE OF WORK
<b>14 CFR Part 150 Noise and Land Use Compatibility Study Update</b> Los Angeles International Airport (CA) (LAX)	2015	<ul style="list-style-type: none"> <li>• Noise Exposure Map</li> <li>• Public outreach program</li> </ul>
<b>ACRP Innovative Wildlife Solutions Airport Cooperative Research Program (ACRP)</b>	2015	<ul style="list-style-type: none"> <li>• Research to identify best practices for airports to address Threatened and Endangered species, including mitigation measures</li> </ul>
<b>Runway Relocation Re-evaluation and Permitting</b> Flagler County Airport (FL) (FIN)	2015	<ul style="list-style-type: none"> <li>• Wetland mapping</li> <li>• Mitigation plan</li> <li>• Environmental documentation</li> </ul>



## Projected Projects

As requested, the following is a list of similar projected projects that our team is currently in the contracting process for, but has not yet initiated:

- INYO County 14 CFR Part 139 Certificate EA
- Various smaller scale planning, environmental and noise tasks (less than \$50k each)

Because these projects are limited in scope or do not include the same technical staff we are proposing for this project, we do not anticipate that they will impact our resource availability.



## Approach to Managing Multiple Projects

ESA provides our clients not only with an array of technical expertise but also substantial practical experience. Over the past 50 years, we have employed tried-and-true methods for managing workload to ensure that we provide exceptional service and work product delivery to multiple airport clients. We are dedicated to implementing those best management practices for BCAD's Environmental Planning and Acoustical Consulting Services. In addition, ESA has served on over 40 airport on-call contracts with multiple task orders including ATL - the busiest airport in the world in terms of total passengers and second busiest in terms of aircraft operations. We will seamlessly integrate with your staff using our proven best practices to conduct as-needed services and will work collaboratively with BCAD staff throughout the entire process. By understanding and addressing environmental issues from an overall program viewpoint, we will help BCAD be proactive in ensuring that environmental issues are resolved before they become part of the critical path.

As initial points of contact with our clients, our Project Manager understands that being accessible to BCAD and ensuring our communications with staff, other consultants and throughout our team is imperative. In addition to basic management practices, Ms. Sullivan has learned through experience that to provide the best client service, a successful management approach for concurrent projects must include:

- **Dedicated Management and Accessibility of Resources.** Our demonstrated success in carrying out both large scale projects and “as-needed” services is the result of the commitment of our project leadership, our staff, and our team members. Given the sheer number of qualified staff available in-house, our Project Manager is able to mobilize our team quickly, and we are capable of balancing multiple projects and tasks concurrently. Our Project Manager offers a thorough and current understanding of environmental regulations as well FAA statutes and guidelines and is recognized for her commitment to exceeding our clients' expectations. The team we have assembled for these services not only ensures we will have the resources available to implement services in a timely manner, but that all project goals will be achieved with creativity and foresight.
- **Cost and Schedule Management.** Timely, cost-effective delivery of products and services are key to the successful project and priorities. Our Project Manager has the experience, discipline, and attention to detail mandated to ensure all cost and schedule targets of the project are met, even for fast track projects. At the very onset of the services, we will work with BCAD to confirm the various scopes, milestones, and assumptions to set this groundwork. Our in-house technologies include both Microsoft Project and Deltek's Vision Project Management and Accounting software to track a project's progress. Deltek's Vision software is used to monitor staff hours on a daily basis against the budgeted hours for the project.
- **Weekly project cost information is linked to our electronic timesheet and vendor invoice process.** Our Project Manager has access to an array of custom project reports that track project milestones so that progress for each ongoing tasks can be monitored, and, as part of the review, critical path issues can be identified early on and tracked. These tools allow for the timely identification and resolution of issues in a cost-effective manner. Our experience and diligence resolving unforeseen issues will ensure that the County receives the best performance in a timely, expeditious manner.
- **Quality Assurance and Control.** Our goal is to provide you with a thorough, technically, and procedurally adequate, easy-to digest environmental document. Mike Arnold has been identified as QA/QC manager for this contract. ESA maintains strict adherence to a QA/QC system to ensure that all our work and publications prepared by ESA and sub-consultants are of the highest overall quality possible. All ESA staff are trained in the QA/QC program. Utilizing ESA's QA/QC Plan, our Project Manager will review all deliverables in draft and final form, as well as internal products that will guide the project, such as field surveys, technical analyses, mapping/graphics, noise model inputs, working papers, and technical documentation.

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# North Perry Airport

is unique to South Florida general aviation in that it has two sets of parallel runways.



# 6

## Willingness to Meet Time and Budget Requirements



## Section 6

# Willingness to Meet Time and Budget Requirements



Timely, cost-effective delivery of products and services are key to the successful project and priorities. Our Project Manager has the experience, discipline, and attention to detail mandated to ensure all cost and schedule targets of the project are met, even for fast track projects. At the very onset of the project, we will work with BCAD to confirm the project scope, milestones, and assumptions to set this groundwork. Our in-house technologies include both Microsoft Project and Deltek's Vision Project Management and Accounting software to track a project's progress. Deltek's Vision software is used to monitor staff hours on a daily basis against the budgeted hours for the project. Our experience and diligence resolving unforeseen issues will ensure that the County receives the best performance in a timely, expeditious manner.

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"As Project Manager for this contract, I fully commit the resources of ESA and assure that I am willing to meet time and budget requirements and work to exceed BCAD's expectations on a daily basis."  
 - Julie Sullivan

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- 2010** Spirit, Broward's hometown airline, celebrated its 20th anniversary
- 2011** Flights to Cuba began via Airline Brokers Company, International passengers broke 3.6 million, JetBlue celebrated its 10th anniversary at FLL, United Airlines returned to FLL
- 2012** Groundbreaking for the expanded South Runway, Alaska Airlines began nonstop flights to Seattle
- 2013** Norwegian begins service from Oslo, Copenhagen and Stockholm
- 2014** Copa arrives from Panama, TAME/Azul begins flights, South Runway opens
- 2015** Terminal 4 Concourse G West opens
- 2016** Emirates arrived from Dubai, First U.S. Cuba commercial flights in decades begin
- 2017** British Airways began service to London-Heathrow
- 2018** FLL reaches passenger milestone of approximately 36M
- 2019** major rehab of Runway 10L/28R and



## Volume of Previous Work



**VOLUME OF PREVIOUS WORK ATTESTATION FORM**

The completed and signed form should be returned with the Vendor's submittal. If not provided with submittal, the Vendor must submit within three business days of County's request. Failure to provide timely may affect the Vendor's evaluation.

**This completed form MUST be included with the Vendor's submittal at the time of the opening deadline to be considered for a Tie Breaker criterion (if applicable).**

Points assigned for Volume of Previous Work will be based on the amount paid-to-date by the County to a prime Vendor **MINUS** the Vendor confirmed payments paid-to-date to approved certified County Business Enterprise (CBE) firms performing services as Vendor subcontractor/subconsultant to obtain the CBE goal commitment as confirmed by County's Office of Economic and Small Business Development. Reporting must be within five (5) years of the current solicitation's opening date.

Vendor must list all received payments paid-to-date by contract as a prime vendor from Broward County Board of County Commissioners. Reporting must be within five (5) years of the current solicitation's opening date.

Vendor must also list all total confirmed payments paid-to-date by contract, to approved certified CBE firms utilized to obtain the contract's CBE goal commitment. Reporting must be within five (5) years of the current solicitation's opening date.

In accordance with Section 21.31.d. of the Broward County Procurement Code, the Vendor with the lowest dollar volume of work previously paid by the County over a five-year period from the date of the submittal opening will receive the Tie Breaker.

**The Vendor attests to the following:**

Item No.	Project Title	Contract No.	Department/ Division	Date Awarded	Prime: Paid to Date	CBE: Paid to Date
1.	FLL Part 150 Noise Compatibility	R1330212P1	Aviation (BCAD)	7/28/2016	1059764.71	207845.11
2.	Broward County Environmental Library	F1154201B1	Environmental	10/22/2013	131124.4	
3.						
4.						
5.						
6.						
7.						

Grand Total

Has the Vendor been a member/partner of a Joint Venture firm that was awarded a contract by the County?

Yes  No

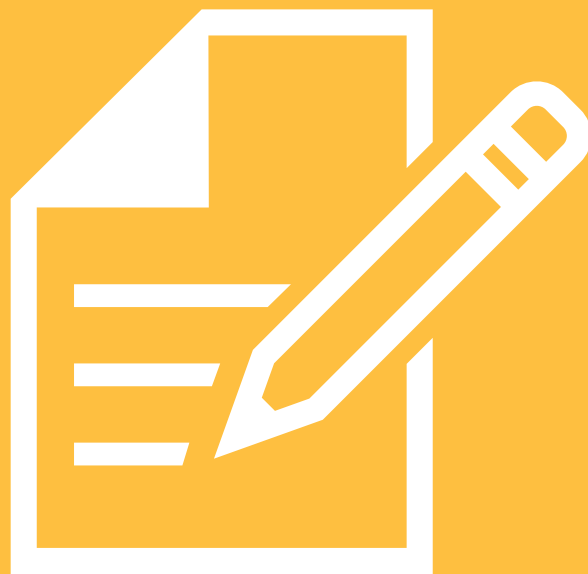
If Yes, Vendor must submit a **Joint Vendor Volume of Work Attestation Form**.

**Vendor Name:** Environmental Science Associates

Julie Sullivan  
Authorized Signature/Name

Vice President  
Title

1/31/20  
Date



# Required Forms



# ESA Certificate of Good Standing



# *State of Florida*

## *Department of State*

I certify from the records of this office that ENVIRONMENTAL SCIENCE ASSOCIATES CORPORATION is a California corporation authorized to transact business in the State of Florida, qualified on March 20, 2000.

The document number of this corporation is F00000001598.

I further certify that said corporation has paid all fees due this office through December 31, 2020, that its most recent annual report/uniform business report was filed on January 2, 2020, and that its status is active.

I further certify that said corporation has not filed a Certificate of Withdrawal.

*Given under my hand and the  
Great Seal of the State of Florida  
at Tallahassee, the Capital, this  
the Second day of January, 2020*



*Ronald R. De*  

---

*Secretary of State*

Tracking Number: 6986243110CC

To authenticate this certificate, visit the following site, enter this number, and then follow the instructions displayed.

<https://services.sunbiz.org/Filings/CertificateOfStatus/CertificateAuthentication>

# ESA Proof of Insurance





**THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.**

## **RLIPack<sup>®</sup> FOR PROFESSIONALS BLANKET ADDITIONAL INSURED ENDORSEMENT**

This endorsement modifies insurance provided under the following:

### **BUSINESSOWNERS COVERAGE FORM - SECTION II – LIABILITY**

1. **C. WHO IS AN INSURED** is amended to include as an additional insured any person or organization that you agree in a contract or agreement requiring insurance to include as an additional insured on this policy, but only with respect to liability for "bodily injury", "property damage" or "personal and advertising injury" caused in whole or in part by you or those acting on your behalf:

- a. In the performance of your ongoing operations;
- b. In connection with premises owned by or rented to you; or
- c. In connection with "your work" and included within the "product-completed operations hazard".

2. The insurance provided to the additional insured by this endorsement is limited as follows:

- a. This insurance does not apply on any basis to any person or organization for which coverage as an additional insured specifically is added by another endorsement to this policy.
- b. This insurance does not apply to the rendering of or failure to render any "professional services".
- c. This endorsement does not increase any of the limits of insurance stated in **D. Liability And Medical Expenses Limits of Insurance**.

3. The following is added to **SECTION III H.2. Other Insurance – COMMON POLICY CONDITIONS (BUT APPLICABLE ONLY TO SECTION II – LIABILITY)**

However, if you specifically agree in a contract or agreement that the insurance provided to an

additional insured under this policy must apply on a primary basis, or a primary and non-contributory basis, this insurance is primary to other insurance that is available to such additional insured which covers such additional insured as a named insured, and we will not share with that other insurance, provided that:

- a. The "bodily injury" or "property damage" for which coverage is sought occurs after you have entered into that contract or agreement; or
- b. The "personal and advertising injury" for which coverage is sought arises out of an offense committed after you have entered into that contract or agreement.

4. The following is added to **SECTION III K. 2. Transfer of Rights of Recovery Against Others to Us – COMMON POLICY CONDITIONS (BUT APPLICABLE TO ONLY TO SECTION II – LIABILITY)**

We waive any rights of recovery we may have against any person or organization because of payments we make for "bodily injury", "property damage" or "personal and advertising injury" arising out of "your work" performed by you, or on your behalf, under a contract or agreement with that person or organization. We waive these rights only where you have agreed to do so as part of a contract or agreement with such person or organization entered into by you before the "bodily injury" or "property damage" occurs, or the "personal and advertising injury" offense is committed.

**ALL OTHER TERMS AND CONDITIONS OF THIS POLICY REMAIN UNCHANGED.**

**BUSINESS AUTO COVERAGE FORM**

**A. Broad Form Named Insured**

The following is added to the **SECTION II – COVERED AUTOS LIABILITY COVERAGE**, Paragraph **A.1. Who Is An Insured** Provision:

Any business entity newly acquired or formed by you during the policy period, provided you own fifty percent (50%) or more of the business entity and the business entity is not separately insured for Business Auto Coverage. Coverage is extended up to a maximum of one hundred eighty (180) days following the acquisition or formation of the business entity.

This provision does not apply to any person or organization for which coverage is excluded by endorsement.

**B. Employees As Insureds**

The following is added to the **SECTION II – COVERED AUTOS LIABILITY COVERAGE**, Paragraph **A.1. Who Is An Insured** Provision:

Any "employee" of yours is an "insured" while using a covered "auto" you don't own, hire or borrow in your business or your personal affairs.

**C. Blanket Additional Insured**

The following is added to the **SECTION II – COVERED AUTOS LIABILITY COVERAGE**, Paragraph **A.1. Who Is An Insured** Provision:

Any person or organization that you are required to include as an additional insured on this coverage form in a contract or agreement that is executed by you before the "bodily injury" or "property damage" occurs is an "insured" for liability coverage, but only for damages to which this insurance applies and only to the extent that person or organization qualifies as an "insured" under the Who Is An Insured provision contained in **SECTION II – COVERED AUTOS LIABILITY COVERAGE**.

The insurance provided to the additional insured will be on a primary and non-contributory basis to the additional insured's own business auto coverage if you are required to do so in a contract or agreement that is executed by you before the "bodily injury" or "property damage" occurs.

**D. Blanket Waiver Of Subrogation**

The following is added to the **SECTION IV – BUSINESS AUTO CONDITIONS, A. Loss Conditions, 5. Transfer Of Rights Of Recovery Against Others To Us**:

We waive any right of recovery we may have against any person or organization to the extent required of you by a contract executed prior to any "accident" or "loss", provided that the "accident" or "loss" arises out

of the operations contemplated by such contract. The waiver applies only to the person or organization designated in such contract.

**E. Employee Hired Autos**

1. The following is added to the **SECTION II – COVERED AUTOS LIABILITY COVERAGE**, Paragraph **A.1. Who Is An Insured** Provision:

An "employee" of yours is an "insured" while operating an "auto" hired or rented under a contract or agreement in that "employee's" name, with your permission, while performing duties related to the conduct of your business.

2. Changes In General Conditions:

Paragraph **5.b.** of the **Other Insurance** Condition in the **BUSINESS AUTO CONDITIONS** is deleted and replaced with the following:

b. For Hired Auto Physical Damage Coverage, the following are deemed to be covered "autos" you own:

(1) Any covered "auto" you lease, hire, rent or borrow; and

(2) Any covered "auto" hired or rented by your "employee" under a contract in that individual "employee's" name, with your permission, while performing duties related to the conduct of your business. However, any "auto" that is leased, hired, rented or borrowed with a driver is not a covered "auto".

**F. Fellow Employee Coverage**

**SECTION II – COVERED AUTOS LIABILITY COVERAGE, Exclusion B.5.** does not apply if you have workers compensation insurance in-force covering all of your employees.

**G. Auto Loan Lease Gap Coverage**

**SECTION III – PHYSICAL DAMAGE COVERAGE, C. Limit Of Insurance**, is amended by the addition of the following:

In the event of a total "loss" to a covered "auto" shown in the Schedule of Declarations, we will pay any unpaid amount due on the lease or loan for a covered "auto", less:

1. The amount paid under the **PHYSICAL DAMAGE COVERAGE** section of the policy; and

2. Any:

a. Overdue lease/loan payments at the time of the "loss";

**WAIVER OF OUR RIGHT TO RECOVER FROM OTHERS ENDORSEMENT-CALIFORNIA**

We have the right to recover our payments from anyone liable for an injury covered by this policy. We will not enforce our right against the person or organization named in the Schedule. (This agreement applies only to the extent that you perform work under a written contract that requires you to obtain this agreement from us.)

You must maintain payroll records accurately segregating the remuneration of your employees while engaged in the work described in the Schedule.

The additional premium for this endorsement shall be  2 % of the California workers' compensation premium otherwise due on such remuneration.

Schedule

**Person or Organization**

All persons or organizations that are party to a contract that requires you to obtain this agreement, provided you executed the contract before the loss.

**Job Description**

Jobs performed for any person or organization that you have agreed with in a written contract to provide this agreement.

This endorsement changes the policy to which it is attached and is effective on the date issued unless otherwise stated.  
(The information below is required only when this endorsement is issued subsequent to preparation of the policy.)

Named Insured: Environmental Science Associates  
Policy Number: PSW0004135  
Insurance Company: RLI Insurance Company

Countersigned By \_\_\_\_\_

# DBE Letters of Intent and Certifications







**OFFICE OF ECONOMIC AND SMALL BUSINESS DEVELOPMENT**

**LETTER OF INTENT BETWEEN BIDDER/OFFEROR AND DISADVANTAGED BUSINESS ENTERPRISE (DBE) /  
AIRPORT CONCESSIONS DISADVANTAGED BUSINESS ENTERPRISE (ACDBE) SUBCONTRACTOR/SUPPLIER**  
(Form to be completed and signed for each DBE/ACDBE firm)

<b>Solicitation Number:</b> PNC2119437P1	<b>Project Title:</b> Environmental Planning and Acoustical Consulting Services
---	--

**Bidder/Offeror Name:** Environmental Science Associates

Address: 5401 South Kirkman Road Suite 475 City: Orlando State: FL Zip: 32819

Authorized Representative: Julie Sullivan Phone: 407-748-2729

**DBE/ACDBE Subcontractor/Supplier Name:** Cherokee Enterprises, Inc.

Check one: Address: 12981 NW 113th Court

DBE  City: Medley State: FL Zip: 33178 Phone: 305-828-3353

ACDBE Authorized Representative: Gabino Cuevas

- A. This is a letter of intent between the bidder/offeror on this project and a DBE/ACDBE firm for the DBE/ACDBE to perform subcontracting work on this project, consistent with Title 49 CFR Parts 26 or 23 as applicable.
- B. By signing below, the bidder/offeror is committing to utilize the above-named DBE/ACDBE to perform the work described below.
- C. By signing below, the above-named DBE/ACDBE is committing to perform the work described below.
- D. By signing below, the bidder/offeror and DBE/ACDBE affirm that if the DBE/ACDBE subcontracts any of the work described below, it may only subcontract that work to another DBE/ACDBE if it wishes to receive DBE/ACDBE credit for said work.

Work to be performed by DBE/ACDBE Firm			
Description	NAICS*	DBE/ACDBE Contract Amount†	DBE/ACDBE Percentage of Total Project Value
Environmental Site Investigation and Rehabilitation	562910		9%

**AFFIRMATION:** I hereby affirm that the information above is true and correct.

**Bidder/Offeror Authorized Representative**

Julie Sullivan Vice President 1/17/2020  
(Signature) (Title) (Date)

**DBE/ACDBE Subcontractor/Supplier Authorized Representative**

Gabino Cuevas Chief Executive Officer 1/17/2020  
(Signature) (Title) (Date)

\* Visit <http://www.census.gov/eos/www/naics/> to search. Match type of work with NAICS code as closely as possible.

† To be provided only when the solicitation requires that bidder/offer include a dollar amount in its bid-offer.

*In the event the bidder/offeror does not receive award of the prime contract, any and all representations in this Letter of Intent and Affirmation shall be null and void.*



OFFICE OF ECONOMIC AND SMALL BUSINESS DEVELOPMENT

LETTER OF INTENT BETWEEN BIDDER/OFFEROR AND DISADVANTAGED BUSINESS ENTERPRISE (DBE) / AIRPORT CONCESSIONS DISADVANTAGED BUSINESS ENTERPRISE (ACDBE) SUBCONTRACTOR/SUPPLIER (Form to be completed and signed for each DBE/ACDBE firm)

<b>Solicitation Number:</b> PNC2119437P1	<b>Project Title:</b> Environmental Planning and Acoustical Consulting Services
---	--

**Bidder/Offeror Name:** Environmental Science Associates  
**Address:** 5401 South Kirkman Road Suite 475 **City:** Orlando **State:** FL **Zip:** 32819  
**Authorized Representative:** Julie Sullivan **Phone:** 407-748-2729  
**DBE/ACDBE Subcontractor/Supplier Name:** Garth Solutions, Inc.  
**Check one:**  **Address:** 7951 Riviera Boulevard, Suite 411  
**DBE**  **City:** Miramar **State:** FL **Zip:** 33023 **Phone:** 954-727-3001  
**ACDBE**  **Authorized Representative:** Yvonne Garth

- A. This is a letter of intent between the bidder/offeror on this project and a DBE/ACDBE firm for the DBE/ACDBE to perform subcontracting work on this project, consistent with Title 49 CFR Parts 26 or 23 as applicable.
- B. By signing below, the bidder/offeror is committing to utilize the above-named DBE/ACDBE to perform the work described below.
- C. By signing below, the above-named DBE/ACDBE is committing to perform the work described below.
- D. By signing below, the bidder/offeror and DBE/ACDBE affirm that if the DBE/ACDBE subcontracts any of the work described below, it may only subcontract that work to another DBE/ACDBE if it wishes to receive DBE/ACDBE credit for said work.

Work to be performed by DBE/ACDBE Firm			
Description	NAICS*	DBE/ACDBE Contract Amount†	DBE/ACDBE Percentage of Total Project Value
Strategic Outreach and Public Communications	541820		3%

**AFFIRMATION:** I hereby affirm that the information above is true and correct.

**Bidder/Offeror Authorized Representative**  
Julie Sullivan Vice President 1/17/2020  
 (Signature) (Title) (Date)

**DBE/ACDBE Subcontractor/Supplier Authorized Representative**  
Yvonne Garth President 1/17/2020  
 (Signature) (Title) (Date)

\* Visit <http://www.census.gov/eos/www/naics/> to search. Match type of work with NAICS code as closely as possible.  
 † To be provided only when the solicitation requires that bidder/offer include a dollar amount in its bid-offer.

In the event the bidder/offeror does not receive award of the prime contract, any and all representations in this Letter of Intent and Affirmation shall be null and void.  
 DBE ACDBE Letter of Intent - Rev. January 2013



**OFFICE OF ECONOMIC AND SMALL BUSINESS DEVELOPMENT**

**LETTER OF INTENT BETWEEN BIDDER/OFFEROR AND DISADVANTAGED BUSINESS ENTERPRISE (DBE) /  
AIRPORT CONCESSIONS DISADVANTAGED BUSINESS ENTERPRISE (ACDBE) SUBCONTRACTOR/SUPPLIER**  
(Form to be completed and signed for each DBE/ACDBE firm)

<b>Solicitation Number:</b> PNC2119437P1	<b>Project Title:</b> Environmental Planning and Acoustical Consulting Services
---	--

**Bidder/Offeror Name:** Environmental Science Associates

Address: 5401 South Kirkman Road Suite 475 City: Orlando State: FL Zip: 32819

Authorized Representative: Julie Sullivan Phone: 407-748-2729

**DBE/ACDBE Subcontractor/Supplier Name:** Jacobsen/Daniels Associates, LLC

Check one: Address: 100 Hartsfield Centre Pkwy, Suite 475

DBE City: Atlanta State: FL Zip: 30354 Phone: 734-961-3200

ACDBE Authorized Representative: J. Carter Strothman

- A. This is a letter of intent between the bidder/offeror on this project and a DBE/ACDBE firm for the DBE/ACDBE to perform subcontracting work on this project, consistent with Title 49 CFR Parts 26 or 23 as applicable.
- B. By signing below, the bidder/offeror is committing to utilize the above-named DBE/ACDBE to perform the work described below.
- C. By signing below, the above-named DBE/ACDBE is committing to perform the work described below.
- D. By signing below, the bidder/offeror and DBE/ACDBE affirm that if the DBE/ACDBE subcontracts any of the work described below, it may only subcontract that work to another DBE/ACDBE if it wishes to receive DBE/ACDBE credit for said work.

Work to be performed by DBE/ACDBE Firm			
Description	NAICS*	DBE/ACDBE Contract Amount†	DBE/ACDBE Percentage of Total Project Value
Program Management	541618		3%

**AFFIRMATION:** I hereby affirm that the information above is true and correct.

**Bidder/Offeror Authorized Representative**

Julie Sullivan Vice President 1/16/2020  
(Signature) (Title) (Date)

**DBE/ACDBE Subcontractor/Supplier Authorized Representative**

John C. Strothman Digitally signed by John C. Strothman Vice President 01/16/2020  
(Signature) Date: 2020.01.17 13:01:53 -05'00' (Title) (Date)

\* Visit <http://www.census.gov/eos/www/naics/> to search. Match type of work with NAICS code as closely as possible.  
† To be provided only when the solicitation requires that bidder/offer include a dollar amount in its bid-offer.



OFFICE OF ECONOMIC AND SMALL BUSINESS DEVELOPMENT

LETTER OF INTENT BETWEEN BIDDER/OFFEROR AND DISADVANTAGED BUSINESS ENTERPRISE (DBE) /  
AIRPORT CONCESSIONS DISADVANTAGED BUSINESS ENTERPRISE (ACDBE) SUBCONTRACTOR/SUPPLIER  
(Form to be completed and signed for each DBE/ACDBE firm)

<b>Solicitation Number:</b> PNC2119437P1	<b>Project Title:</b> Environmental Planning and Acoustical Consulting Services
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**Bidder/Offeror Name:** Environmental Science Associates

**Address:** 5401 South Kirkman Road Suite 475 **City:** Orlando **State:** FL **Zip:** 32819

**Authorized Representative:** Julie Sullivan **Phone:** 407-748-2729

**DBE/ACDBE Subcontractor/Supplier Name:** MSE Group, LLC

**Check one:**  **Address:** 5858 S. Semoran Blvd

**DBE X**  **City:** Orlando **State:** FL **Zip:** 32822 **Phone:** 855-629-8180

**ACDBE**  **Authorized Representative:** Mike Orcino

- A. This is a letter of intent between the bidder/offeror on this project and a DBE/ACDBE firm for the DBE/ACDBE to perform subcontracting work on this project, consistent with Title 49 CFR Parts 26 or 23 as applicable.
- B. By signing below, the bidder/offeror is committing to utilize the above-named DBE/ACDBE to perform the work described below.
- C. By signing below, the above-named DBE/ACDBE is committing to perform the work described below.
- D. By signing below, the bidder/offeror and DBE/ACDBE affirm that if the DBE/ACDBE subcontracts any of the work described below, it may only subcontract that work to another DBE/ACDBE if it wishes to receive DBE/ACDBE credit for said work.

Work to be performed by DBE/ACDBE Firm			
Description	NAICS*	DBE/ACDBE Contract Amount†	DBE/ACDBE Percentage of Total Project Value
Environmental Site Investigation and Rehabilitation Services	562910		2%

**AFFIRMATION:** I hereby affirm that the information above is true and correct.

**Bidder/Offeror Authorized Representative**

Julie Sullivan **Vice President** **January 16, 2020**  
(Signature) (Title) (Date)

**DBE/ACDBE Subcontractor/Supplier Authorized Representative**

Mike Orcino **Vice President** **January 16, 2020**  
(Signature) (Title) (Date)

\* Visit <http://www.census.gov/eos/www/naics/> to search. Match type of work with NAICS code as closely as possible.

† To be provided only when the solicitation requires that bidder/offer include a dollar amount in its bid-offer.

*In the event the bidder/offeror does not receive award of the prime contract, any and all representations in this Letter of Intent and Affirmation shall be null and void.*

**From:** [Alexia Freeman](#)  
**To:** [Alexia Freeman](#)  
**Subject:** FW: No Change Declaration Acknowledgement  
**Date:** Tuesday, May 28, 2019 11:18:50 AM  
**Attachments:** [image001.jpg](#)

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**From:** [DBECert.Help@dot.state.fl.us](mailto:DBECert.Help@dot.state.fl.us) [<mailto:DBECert.Help@dot.state.fl.us>]  
**Sent:** Friday, May 24, 2019 4:16 PM  
**To:** Christine Franklin <[cef@cherokeecorp.com](mailto:cef@cherokeecorp.com)>  
**Subject:** No Change Declaration Acknowledgement

Email From: [DBECert.Help@dot.state.fl.us](mailto:DBECert.Help@dot.state.fl.us) ([DBECert.Help@dot.state.fl.us](mailto:DBECert.Help@dot.state.fl.us))

Message:

We have processed your No Change Declaration (NCD), as applicable. Your Anniversary Date is 6/14/2020

Sincerely,  
Equal Opportunity Office  
DBE Certification



**OFFICE OF ECONOMIC AND SMALL BUSINESS DEVELOPMENT**

**Governmental Center Annex**

115 S. Andrews Avenue, Room A680 • Fort Lauderdale, Florida 33301  
954-357-6400 • FAX 954-357-5674 • TTY 954-357-5664

**January 8, 2019**

**Ms. Yvonne Garth  
GARTH SOLUTIONS, INC.  
7951 Riviera Blvd., Suite 411  
Miramar, Florida 33023**

**ANNIVERSARY DATE – Annually, on January 8<sup>th</sup>**

Dear Ms. Garth:

**Broward County** is pleased to announce that **Garth Solutions, Inc.** has renewed its certification as an **Airport Concessions Disadvantaged Business Enterprise (ACDBE)** and **Disadvantaged Business Enterprise [DBE]** in Florida, under a **Unified Certification Program [UCP]** in accordance with 49 CFR, PARTS 23 and 26.

ACDBE/DBE certification continues from your anniversary date, but is contingent upon Garth Solutions, Inc. renewing its eligibility annually through this office, Office of Economic and Small Business Development (OESBD). OESBD will notify you in advance of your obligation to provide continuing eligibility documents; however, assuring continued certification is your responsibility. Failure to continue your eligibility will result in immediate action to remove Garth Solutions, Inc. as an ACDBE/DBE.

As long as Garth Solutions, Inc. is listed in the DBE Directory, it is considered ACDBE/DBE Certified by all Florida UCP Members.

ACDBE/DBE Certification is subject to actions by governmental agencies impacting the disadvantaged status of Garth Solutions, Inc.

Garth Solutions, Inc. will be listed in Florida's **UCP DBE Directory** which can be accessed via the internet, at <https://www3.dot.state.fl.us/EqualOpportunityOffice/BizNet>.

ACDBE/DBE certification is **NOT** a guarantee of work, but enables Garth Solutions, Inc. to compete for, and perform, contract work on all USDOT Federal Aid FAA, FTA and FHWA projects in Florida as an ACDBE/DBE contractor, sub-contractor, consultant, and sub-consultant or material supplier.

**Broward County Board of County Commissioners**

Mark D. Bogen • Beam Furr • Steve Geller • Dale V.C. Holness • Chip LaMarca • Nan H. Rich • Tim Ryan • Barbara Sharief • Michael Udine  
[www.broward.org](http://www.broward.org)

**Re: Garth Solutions, Inc.**

**January 8, 2019**

If, at any time, there is a material change in Garth Solutions, Inc., including, but not limited to, ownership, officers, directors, scope of work being performed, daily operations, affiliations with other businesses or individuals or physical location of Garth Solutions, Inc., you must notify OESBD, in writing, without delay. Notification should include supporting documentation. You will receive acknowledgement and confirmation of continued eligibility, if applicable after notification of changes.

Garth Solutions, Inc. may compete for, and perform, work on all USDOT Federal Aid projects throughout Florida, receiving DBE credit for work performed in the following areas:

**NAICS CODE: 541611 Administrative Management Consulting Services**

**NAICS CODE: 541613 Marketing Consulting Services**

**NAICS CODE: 541820 Public Relations, Outreach**

**NAICS CODE: 541430 Graphic Design Services**

**NAICS CODE: 541616 Other Management Consulting Services**

**NAICS CODE: 561110 Office Administrative Services**

Please feel free to contact OESBD for any questions or concerns pertaining to your ACDBE/DBE certification. Our telephone number is (954) 357-6400; our fax number is (954) 357-5674.

Sincerely,



Sandy-Michael McDonald, Director  
Office of Economic and Small Business Development

## Florida UCP DBE Directory

**Number of Records Returned:** 1

**Selection Criteria:**

Vendor : GARTH SOLUTIONS, INC.

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**Vendor Name:** GARTH SOLUTIONS, INC.

**DBE Certification:** CERTIFIED

**MBE Certification:**

**DBA:**

**Former Name:**

Business Description: CONSULTING SERVICES MARKETING PUBLIC RELATIONS

**Mailing AddressJ:** 7951 RIVIERA BOULEVARD SUITE 41  
1  
MIRAMAR, FL 33023-

**Contact Name:** YVONNE GARTH

**Phone:** (954) 727-3001

**Fax:** (888) 819-3041

**Email:** [YVONNE@GARTHSOLUTIONS.COM](mailto:YVONNE@GARTHSOLUTIONS.COM)

**ACDBE Status:** Y

**Statewide Availability:** Y

**Certified NAICS**

541611	Administrative Management and General Management Consulting Services
541613	Marketing Consulting Services
541820	Public Relations Agencies
541910	Marketing Research and Public Opinion Polling

Run on : 07/26/2019

Page: 1





GREATER ORLANDO AVIATION AUTHORITY



# Florida Unified Certification Program

## Disadvantaged Business Enterprise (DBE) Certificate of Eligibility

### Jacobsen/Daniels Associates, LLC.

MEETS THE REQUIREMENTS OF 49 CFR, PART 26

#### APPROVED NAICS CODES:

453220 – 541330 – 541611 – 541614 – 541618 – 561110 – 722410 – 722513 – 812930

Note: There may be other Approved NAICS Codes. The online DBE Directory includes a complete list of Approved Codes.

By:  George I. Morning, GOAA - Small Business Development



**ANNIVERSARY DATE - Annually on February 7<sup>th</sup> 2020**



*Florida Unified Certification Program*

# Disadvantaged Business Enterprise (DBE)

## Certificate of Eligibility

### MSE GROUP LLC

*MEETS THE REQUIREMENTS OF 49 CFR, PART 26*

*APPROVED NAICS CODES:*

541330, 541618, 541620, 541690

*Victoria V Smith*

1/18/2017

*DATE*

*VICTORIA V. SMITH, Equal Opportunity Office Manager - Florida Department of Transportation*



**ANNIVERSARY DATE - Annually June 10<sup>th</sup>**

**MSE GROUP LLC** has been certified under Florida's Unified Certification Program (UCP) as a Disadvantaged Business Enterprise (DBE) in accordance with 49 Code of Federal Regulation Part 26.

**DBE Certification does not expire.** It is contingent upon the firm maintaining eligibility annually through this office. Owners will be notified of their responsibilities in advance of the anniversary date.

The firm is listed in Florida's DBE Directory which can be accessed at the following link:

<http://www3b.dot.state.fl.us/EqualOpportunityOfficeBusinessDirectory/>

Prime contractors and consultants must verify the firm's DBE certification status, and identify eligible work area(s) through the Directory. The Department's DBE Support Service Providers are available, offering managerial and technical assistance at no cost.

Contact us at (850)414-4747 or via email [DBECert.Help@dot.state.fl.us](mailto:DBECert.Help@dot.state.fl.us).

Victoria Smith  
Equal Opportunity Office

# Vendor Reference Verification Forms





## Vendor Reference Verification Form

Broward County Solicitation No. and Title:

R PNC2119437P1, Environmental Planning and Acoustical Consulting Services

Reference for: Environmental Science Associates

Organization/Firm Name providing reference:

Lakeland Linder International Airport

Contact Name: Gene Conrad

Reference date: 12/19/2019

Contact Email: Gene.Conrad@lakelandgov.net

Contact Phone: 863-834-3298

Name of Referenced Project: On-Call Environmental Consulting Services

Contract No.

Date Services Provided:

Project Amount:

2011

to Ongoing

\$500,000

Vendor's role in Project:  Prime Vendor  Subconsultant/Subcontractor

Would you use this vendor again?  Yes  No

### Description of services provided by Vendor:

Through multiple on-call contracts at the Lakeland Linder International Airport (LAL), ESA provides the full range of environmental and noise consulting services with assignments including: NEPA compliance, listed species coordination, noise analysis, wetland assessment and mapping, wildlife hazard assessment and management; environmental resource permitting, permit compliance, and comprehensive agency coordination.

#### Please rate your experience with the referenced Vendor:

	Needs Improvement	Satisfactory	Excellent	Not Applicable
1. Vendor's Quality of Service				
a. Responsive	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Accuracy	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Deliverables	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Vendor's Organization:				
a. Staff expertise	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Professionalism	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Turnover	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. Timeliness of:				
a. Project	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Deliverables	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4. Project completed within budget	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5. Cooperation with:				
a. Your Firm	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Subcontractor(s)/Subconsultant(s)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Regulatory Agency(ies)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Additional Comments: (provide on additional sheet if needed)

THIS SECTION FOR COUNTY USE ONLY\*\*\*

Verified via:  EMAIL  VERBAL Verified by: \_\_\_\_\_ Division: \_\_\_\_\_ Date: \_\_\_\_\_



## Vendor Reference Verification Form

Broward County Solicitation No. and Title:

R PNC2119437P1, Environmental Planning and Acoustical Consulting Services

Reference for: Environmental Science Associates

Organization/Firm Name providing reference:

Greater Orlando Aviation Authority

Contact Name: Brad Friel

Reference date: 12/31/2019

Contact Email: bfriel@goaa.org

Contact Phone: 407-797-5561

Name of Referenced Project: On-Call Environmental and Noise Services

Contract No.	Date Services Provided:	Project Amount:
	<u>01/01/1999</u> to <u>12/31/2020</u>	<u>\$ 2,500,000.00</u>

Vendor's role in Project:  Prime Vendor  Subconsultant/Subcontractor

Would you use this vendor again?  Yes  No

**Description of services provided by Vendor:**

South Terminal EA, New Large Aircraft EA, East Airfield EA, Multiple catexs for land releases, development projects and PFC applications. Part 150 Noise Studies and Noise support for Orlando International and Executive Airports.

**Please rate your experience with the referenced Vendor:**

	Needs Improvement	Satisfactory	Excellent	Not Applicable
1. Vendor's Quality of Service				
a. Responsive	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Accuracy	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Deliverables	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Vendor's Organization:				
a. Staff expertise	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Professionalism	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Turnover	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. Timeliness of:				
a. Project	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Deliverables	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4. Project completed within budget	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5. Cooperation with:				
a. Your Firm	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Subcontractor(s)/Subconsultant(s)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Regulatory Agency(ies)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Additional Comments:** (provide on additional sheet if needed)

THIS SECTION FOR COUNTY USE ONLY\*\*\*

Verified via:  EMAIL  VERBAL Verified by: \_\_\_\_\_ Division: \_\_\_\_\_ Date: \_\_\_\_\_



## Vendor Reference Verification Form

Broward County Solicitation No. and Title:

R PNC2119437P1, Environmental Planning and Acoustical Consulting Services

Reference for: Environmental Science Associates

Organization/Firm Name providing reference:

Port Authority of New York and New Jersey (PANYNJ)

Contact Name: Kelly Mitchell

Reference date: 12/31/2019

Contact Email: kmitchell@panynj.gov

Contact Phone: 212.435.3728

Name of Referenced Project: JFK and LGA Part 150 Noise Studies and Environmental Planning +

Contract No.

Date Services Provided:

Project Amount:

Agreement # AVI-14-036

10/06/2014

to

12/31/2020

\$ 9,995,451.00

Vendor's role in Project:  Prime Vendor  Subconsultant/Subcontractor

Would you use this vendor again?  Yes  No

**Description of services provided by Vendor:**

Comprehensive Part 150 Noise Studies for LaGuardia (LGA) and John F. Kennedy (JFK) International Airports. NEPA support for JFK runway closure and rehabilitation project.

**Please rate your experience with the referenced Vendor:**

**Needs Improvement**

**Satisfactory**

**Excellent**

**Not Applicable**

**Additional Comments:** (provide on additional sheet if needed)

THIS SECTION FOR COUNTY USE ONLY\*\*\*

Verified via:  EMAIL  VERBAL Verified by: \_\_\_\_\_ Division: \_\_\_\_\_ Date: \_\_\_\_\_



### Vendor Reference Verification Form

Broward County Solicitation No. and Title:

R PNC2119437P1, Environmental Planning and Acoustical Consulting Services

Reference for: Environmental Science Associates

Organization/Firm Name providing reference:

Naples Airport Authority

Contact Name: Kerry Keith

Reference date: 01/02/2020

Contact Email: kkeith@flynaples.com

Contact Phone: 239-643-0733

Name of Referenced Project: Environmental, Planning and Noise Services

Contract No.

Date Services Provided:

Project Amount:

Multiple Projects

01/01/2014 to 12/31/2020

\$ 3,000,000.00

Vendor's role in Project:  Prime Vendor  Subconsultant/Subcontractor

Would you use this vendor again?  Yes  No

**Description of services provided by Vendor:**

ESA provides a variety of noise and environmental services to APF through several contracts including: On-Call General Engineering Consultant, Noise Consulting Services, Runway 5-23 Drainage Improvements and the current Master Plan Update, current ongoing consulting services.

**Please rate your experience with the referenced Vendor:**

	Needs Improvement	Satisfactory	Excellent	Not Applicable
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1. Vendor's Quality of Service				
a. Responsive	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Accuracy	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Deliverables	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Vendor's Organization:				
a. Staff expertise	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Professionalism	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Turnover	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. Timeliness of:				
a. Project	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Deliverables	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4. Project completed within budget	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5. Cooperation with:				
a. Your Firm	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Subcontractor(s)/Subconsultant(s)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Regulatory Agency(ies)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Additional Comments:** (provide on additional sheet if needed)

ESA has been working for the Naples Airport Authority as a consultant and sub-consultant since 2014 with excellent results. Timely, cost effective, knowledgeable, and flexible.

THIS SECTION FOR COUNTY USE ONLY\*\*\*

Verified via:  EMAIL  VERBAL Verified by: \_\_\_\_\_ Division: \_\_\_\_\_ Date: \_\_\_\_\_



# Vendor's Opportunity List Prime and Suconsultant Information



**Supplier Response Form  
VENDOR'S OPPORTUNITY LIST FORM**

The completed form(s) should be returned with the Vendor's submittal. If not provided with submittal, the Vendor must submit within three business days of County's request. Vendor may be deemed non-responsive for failure to fully comply within stated timeframes.

This solicitation consists of federally assisted funds and federal law requires Broward County to maintain a database of all firms that are participating or attempting to participate in federally assisted contracts, sponsored Department of Transportation (D.O.T.).

The form should include the Vendor's information, as well as any prospective subcontractor/subconsultant that the Vendor contacted or who contacted the Vendor regarding this solicitation.

**Prime Vendor Information**

1. Federal Tax ID Number:

94-1698350

2. Firm Name:

Environmental Science Associates

3. Phone:

(407) 403-6300

4. Address:

5401 South Kirkman Road Suite 475

Orlando, FL 32819

5. Year Firm Established: 1969

6.  DBE  Non-DBE

7. Type of work bid on:

Project Management, Environmental, Noise, Planning

9. Annual Gross Receipts

- Less than \$200,000
- \$200,001 - \$500,000
- \$500,001 - less than \$1 million
- \$1 million - less than \$5 million
- \$5 million - less than \$10 million
- \$10 million - less than \$20 million
- \$20 million - less than \$50 million
- \$50 million - less than \$100 million
- \$100 million - less than \$500 million
- \$500 million - less than \$1 billion
- Over \$1 billion

10. Ethnic Categories

- B (Black American)
- H (Hispanic American)
- NA(Native American)
- Subcont. Asian American
- Asian Pacific American
- Non- Minority Women
- Other (i.e., not of any other group listed above)

11. Gender

- Female
- Male

(Please be specific in regard to the type of work).

8. Contract Amount or Percentage

(%): 65 or (\$):

(Continued)

**Subcontractor/Subconsultant Information**

Provide this information for any subcontractor/subconsultant who provided the Prime Vendor with a bid/quote/proposal to perform work on the project; or any subcontractor/subconsultant solicited by the Prime Vendor to provide a bid/quote/proposal. Provide additional forms for Subcontractor /Subconsultant Information as needed.

9. Subcontract Amount/Percentage

(Continued)

**Subcontractor/Subconsultant Information**

Provide this information for any subcontractor/subconsultant who provided the Prime Vendor with a bid/quote/proposal to perform work on the project; or any subcontractor/subconsultant solicited by the Prime Vendor to provide a bid/quote/proposal. Provide additional forms for Subcontractor /Subconsultant Information as needed.

<p>1. Federal Tax ID Number: <u>36-3663903</u></p> <p>2. Firm Name: <u>Ricondo &amp; Associates, Inc.</u></p> <p>3. Phone: <u>312-606-0611</u></p> <p>4. Address: <u>20 North Clark Street, Suite 1500</u> <u>Chicago, Illinois 60602</u></p> <p>5. Year Firm Established: <u>1989</u></p> <p>6. <input type="checkbox"/> DBE <input checked="" type="checkbox"/> Non-DBE</p> <p>7. <input type="checkbox"/> Subcontractor <input checked="" type="checkbox"/> Subconsultant</p> <p>8. Type of work bid on: <u>Planning</u></p> <p>(Please be specific in regard to the type of work).</p>	<p>9. Subcontract Amount/Percentage (%): <u>12</u> or (\$): <u>          </u></p> <p>10. Annual Gross Receipts: <input type="checkbox"/> Less than \$200,000 <input type="checkbox"/> \$200,001 - \$500,000 <input type="checkbox"/> \$500,001 - less than \$1 million <input type="checkbox"/> \$1 million - less than \$5 million <input type="checkbox"/> \$5 million - less than \$10 million <input type="checkbox"/> \$10 million - less than \$20 million <input checked="" type="checkbox"/> \$20 million - less than \$50 million <input type="checkbox"/> \$50 million - less than \$100 million <input type="checkbox"/> \$100 million - less than \$500 million <input type="checkbox"/> \$500 million - less than \$1 billion <input type="checkbox"/> Over \$1 billion</p>	<p><i>Ricondo is a 100 percent employee owned company, so all boxes on questions 11 and 12 would apply</i></p> <p>11. Ethnic Categories <input type="checkbox"/> Asian Pacific American <input type="checkbox"/> B (Black American) <input type="checkbox"/> H (Hispanic American) <input type="checkbox"/> NA(Native American) <input type="checkbox"/> Non-Minority Women <input type="checkbox"/> Subcont. Asian American <input type="checkbox"/> Other (i.e., not of any other group listed above)</p> <p>12. Gender <input type="checkbox"/> Female <input type="checkbox"/> Male</p>
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<p>1. Federal Tax ID Number: _____</p> <p>2. Firm Name: _____</p> <p>3. Phone: _____</p> <p>4. Address: _____ _____ _____</p> <p>5. Year Firm Established: _____</p>	<p>9. Subcontract Amount/Percentage (%): _____ or (\$): _____</p> <p>10. Annual Gross Receipts: <input type="checkbox"/> Less than \$200,000 <input type="checkbox"/> \$200,001 - \$500,000 <input type="checkbox"/> \$500,001 - less than \$1 million <input type="checkbox"/> \$1 million - less than \$5 million <input type="checkbox"/> \$5 million - less than \$10 million <input type="checkbox"/> \$10 million - less than \$20 million</p>	<p>11. Ethnic Categories <input type="checkbox"/> Asian Pacific American <input type="checkbox"/> B (Black American) <input type="checkbox"/> H (Hispanic American) <input type="checkbox"/> NA(Native American) <input type="checkbox"/> Non-Minority Women <input type="checkbox"/> Subcont. Asian American <input type="checkbox"/> Other (i.e., not of any other group listed above)</p>
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(Continued)

**Subcontractor/Subconsultant Information**

Provide this information for any subcontractor/subconsultant who provided the Prime Vendor with a bid/quote/proposal to perform work on the project; or any subcontractor/subconsultant solicited by the Prime Vendor to provide a bid/quote/proposal. Provide additional forms for Subcontractor /Subconsultant Information as needed.

<p>Federal Tax ID Number: 01-0689374</p> <hr/> <p>Firm Name: MSE Group, LLC</p> <hr/> <p>Phone: 855-629-8180</p> <hr/> <p>Address: 5858 S. Semoran Blvd Orlando, Florida 32822</p> <hr/> <p>Year Firm Established: 2002</p> <p><input checked="" type="checkbox"/> DBE   <input type="checkbox"/> Non-DBE</p> <p><input type="checkbox"/> Subcontractor</p> <p><input checked="" type="checkbox"/> Subconsultant</p> <p>Type of work bid on: Environmental Site Investigation and Rehabilitation Services (Please be specific in regard to the type of work).</p>	<p>9. Subcontract Amount/Percentage (%): <input type="text"/> or (\$): <input type="text"/></p> <p>10. Annual Gross Receipts:</p> <p><input type="checkbox"/> Less than \$200,000</p> <p><input type="checkbox"/> \$200,001 - \$500,000</p> <p><input type="checkbox"/> \$500,001 - less than \$1 million</p> <p><input type="checkbox"/> \$1 million - less than \$5 million</p> <p><input type="checkbox"/> \$5 million - less than \$10 million</p> <p><input checked="" type="checkbox"/> \$10 million - less than \$20 million</p> <p><input type="checkbox"/> \$20 million - less than \$50 million</p> <p><input type="checkbox"/> \$50 million - less than \$100 million</p> <p><input type="checkbox"/> \$100 million - less than \$500 million</p> <p><input type="checkbox"/> \$500 million - less than \$1 billion</p> <p><input type="checkbox"/> Over \$1 billion</p>	<p>11. Ethnic Categories</p> <p><input checked="" type="checkbox"/> Asian Pacific American</p> <p><input type="checkbox"/> B (Black American)</p> <p><input type="checkbox"/> H (Hispanic American)</p> <p><input type="checkbox"/> NA(Native American)</p> <p><input type="checkbox"/> Non-Minority Women</p> <p><input type="checkbox"/> Subcont. Asian American</p> <p><input type="checkbox"/> Other (i.e., not of any other group listed above)</p> <p>12. Gender</p> <p><input checked="" type="checkbox"/> Female</p> <p><input type="checkbox"/> Male</p>
<p>Federal Tax ID Number:</p> <hr/> <p>Firm Name:</p> <hr/> <p>Phone:</p> <hr/> <p>Address:</p> <hr/> <p>Year Firm Established:</p> <hr/>	<p>9. Subcontract Amount/Percentage (%): <input type="text"/> or (\$): <input type="text"/></p> <p>10. Annual Gross Receipts:</p> <p><input type="checkbox"/> Less than \$200,000</p> <p><input type="checkbox"/> \$200,001 - \$500,000</p> <p><input type="checkbox"/> \$500,001 - less than \$1 million</p> <p><input type="checkbox"/> \$1 million - less than \$5 million</p> <p><input type="checkbox"/> \$5 million - less than \$10 million</p> <p><input type="checkbox"/> \$10 million - less than \$20 million</p>	<p>11. Ethnic Categories</p> <p><input type="checkbox"/> Asian Pacific American</p> <p><input type="checkbox"/> B (Black American)</p> <p><input type="checkbox"/> H (Hispanic American)</p> <p><input type="checkbox"/> NA(Native American)</p> <p><input type="checkbox"/> Non-Minority Women</p> <p><input type="checkbox"/> Subcont. Asian American</p> <p><input type="checkbox"/> Other (i.e., not of any other group listed above)</p>

(Continued)

**Subcontractor/Subconsultant Information**

Provide this information for any subcontractor/subconsultant who provided the Prime Vendor with a bid/quote/proposal to perform work on the project; or any subcontractor/subconsultant solicited by the Prime Vendor to provide a bid/quote/proposal. Provide additional forms for Subcontractor /Subconsultant Information as needed.

<p>1. Federal Tax ID Number: <u>82-4457701</u></p> <p>2. Firm Name: <u>Avion Solutions Group, LLC</u></p> <p>3. Phone: <u>631-496-6075</u></p> <p>4. Address: <u>244 5th Avenue, Suite P296</u> <u>NY, NY 10001</u></p> <p>5. Year Firm Established: <u>2018</u></p> <p>6. <input type="checkbox"/> DBE <input type="checkbox"/> Non-DBE</p> <p>7. <input type="checkbox"/> Subcontractor <input type="checkbox"/> Subconsultant</p> <p>8. Type of work bid on: <u>Aviation Consulting</u></p> <p>(Please be specific in regard to the type of work).</p>	<p>9. Subcontract Amount/Percentage (%): <u>          </u> or (\$): <u>          </u></p> <p>10. Annual Gross Receipts: <input type="checkbox"/> Less than \$200,000 <input type="checkbox"/> \$200,001 - \$500,000 <input checked="" type="checkbox"/> \$500,001 - less than \$1 million <input type="checkbox"/> \$1 million - less than \$5 million <input type="checkbox"/> \$5 million - less than \$10 million <input type="checkbox"/> \$10 million - less than \$20 million <input type="checkbox"/> \$20 million - less than \$50 million <input type="checkbox"/> \$50 million - less than \$100 million <input type="checkbox"/> \$100 million - less than \$500 million <input type="checkbox"/> \$500 million - less than \$1 billion <input type="checkbox"/> Over \$1 billion</p>	<p>11. Ethnic Categories <input type="checkbox"/> Asian Pacific American <input type="checkbox"/> B (Black American) <input type="checkbox"/> H (Hispanic American) <input type="checkbox"/> NA(Native American) <input type="checkbox"/> Non-Minority Women <input type="checkbox"/> Subcont. Asian American <input type="checkbox"/> Other (i.e., not of any other group listed above)</p> <p>12. Gender <input checked="" type="checkbox"/> Female <input type="checkbox"/> Male</p>
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<p>1. Federal Tax ID Number: _____</p> <p>2. Firm Name: _____</p> <p>3. Phone: _____</p> <p>4. Address: _____ _____ _____</p> <p>5. Year Firm Established: _____</p>	<p>9. Subcontract Amount/Percentage (%): <u>          </u> or (\$): <u>          </u></p> <p>10. Annual Gross Receipts: <input type="checkbox"/> Less than \$200,000 <input type="checkbox"/> \$200,001 - \$500,000 <input type="checkbox"/> \$500,001 - less than \$1 million <input type="checkbox"/> \$1 million - less than \$5 million <input type="checkbox"/> \$5 million - less than \$10 million <input type="checkbox"/> \$10 million - less than \$20 million</p>	<p>11. Ethnic Categories <input type="checkbox"/> Asian Pacific American <input type="checkbox"/> B (Black American) <input type="checkbox"/> H (Hispanic American) <input type="checkbox"/> NA(Native American) <input type="checkbox"/> Non-Minority Women <input type="checkbox"/> Subcont. Asian American <input type="checkbox"/> Other (i.e., not of any other group listed above)</p>
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**Subcontractor/Subconsultant Information**

Provide this information for any subcontractor/subconsultant who provided the Prime Vendor with a bid/quote/proposal to perform work on the project; or any subcontractor/subconsultant solicited by the Prime Vendor to provide a bid/quote/proposal. Provide additional forms for Subcontractor /Subconsultant Information as needed.

<p>Federal Tax ID Number: 52-1604386</p> <p>Firm Name: KCI Technologies, Inc.</p> <p>Phone: (954) 776-1616</p> <p>Address: 6500 N Andrews Avenue Fort Lauderdale, FL 33309</p> <p>Year Firm Established: 1955</p> <p><input type="checkbox"/> DBE <input type="checkbox"/> Non-DBE</p> <p><input type="checkbox"/> Subcontractor</p> <p><input checked="" type="checkbox"/> Subconsultant</p> <p>Type of work bid on: Landscape Architecture/ITS/ Utility Coordination (Please be specific in regard to the type of work).</p>	<p>9. Subcontract Amount/Percentage (%): 2 or (\$):</p> <p>10. Annual Gross Receipts: <input type="checkbox"/> Less than \$200,000 <input type="checkbox"/> \$200,001 - \$500,000 <input type="checkbox"/> \$500,001 - less than \$1 million <input type="checkbox"/> \$1 million - less than \$5 million <input type="checkbox"/> \$5 million - less than \$10 million <input type="checkbox"/> \$10 million - less than \$20 million <input type="checkbox"/> \$20 million - less than \$50 million <input type="checkbox"/> \$50 million - less than \$100 million <input checked="" type="checkbox"/> \$100 million - less than \$500 million <input type="checkbox"/> \$500 million - less than \$1 billion <input type="checkbox"/> Over \$1 billion</p>	<p>11. Ethnic Categories <input type="checkbox"/> Asian Pacific American <input type="checkbox"/> B (Black American) <input type="checkbox"/> H (Hispanic American) <input type="checkbox"/> NA(Native American) <input type="checkbox"/> Non-Minority Women <input type="checkbox"/> Subcont. Asian American <input checked="" type="checkbox"/> Other (i.e., not of any other group listed above)</p> <p>12. Gender N/A <input type="checkbox"/> Female <input type="checkbox"/> Male</p>
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<p>Federal Tax ID Number:</p> <p>Firm Name:</p> <p>Phone:</p> <p>Address:</p> <p>Year Firm Established:</p>	<p>9. Subcontract Amount/Percentage (%): or (\$):</p> <p>10. Annual Gross Receipts: <input type="checkbox"/> Less than \$200,000 <input type="checkbox"/> \$200,001 - \$500,000 <input type="checkbox"/> \$500,001 - less than \$1 million <input type="checkbox"/> \$1 million - less than \$5 million <input type="checkbox"/> \$5 million - less than \$10 million <input type="checkbox"/> \$10 million - less than \$20 million</p>	<p>11. Ethnic Categories <input type="checkbox"/> Asian Pacific American <input type="checkbox"/> B (Black American) <input type="checkbox"/> H (Hispanic American) <input type="checkbox"/> NA(Native American) <input type="checkbox"/> Non-Minority Women <input type="checkbox"/> Subcont. Asian American <input type="checkbox"/> Other (i.e., not of any other group listed above)</p>
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**Subcontractor/Subconsultant Information**

Provide this information for any subcontractor/subconsultant who provided the Prime Vendor with a bid/quote/proposal to perform work on the project; or any subcontractor/subconsultant solicited by the Prime Vendor to provide a bid/quote/proposal. Provide additional forms for Subcontractor /Subconsultant Information as needed.

<p>Federal Tax ID Number: 65-0500793</p> <hr/> <p>Firm Name: Lewis, Longman &amp; Walker, P.A.</p> <hr/> <p>Phone: (561)640-0820</p> <hr/> <p>Address: 515 North Flagler Drive, Suite 1500 West Palm Beach, FL 33401</p> <hr/> <p>Year Firm Established: 1994</p> <p><input type="checkbox"/> DBE   <input type="checkbox"/> Non-DBE</p> <p><input type="checkbox"/> Subcontractor</p> <p><input checked="" type="checkbox"/> Subconsultant</p> <p>Type of work bid on: Legal</p> <hr/> <p>Please be specific in regard to the type of work).</p>	<p>9. Subcontract Amount/Percentage</p> <p>(%): 1 or (\$):</p> <hr/> <p>10. Annual Gross Receipts:</p> <p><input type="checkbox"/> Less than \$200,000</p> <p><input type="checkbox"/> \$200,001 - \$500,000</p> <p><input type="checkbox"/> \$500,001 - less than \$1 million</p> <p><input type="checkbox"/> \$1 million - less than \$5 million</p> <p><input type="checkbox"/> \$5 million - less than \$10 million</p> <p><input type="checkbox"/> \$10 million - less than \$20 million</p> <p><input type="checkbox"/> \$20 million - less than \$50 million</p> <p><input type="checkbox"/> \$50 million - less than \$100 million</p> <p><input type="checkbox"/> \$100 million - less than \$500 million</p> <p><input type="checkbox"/> \$500 million - less than \$1 billion</p> <p><input type="checkbox"/> Over \$1 billion</p>	<p>11. Ethnic Categories</p> <p><input type="checkbox"/> Asian Pacific American</p> <p><input type="checkbox"/> B (Black American)</p> <p><input type="checkbox"/> H (Hispanic American)</p> <p><input type="checkbox"/> NA(Native American)</p> <p><input type="checkbox"/> Non-Minority Women</p> <p><input type="checkbox"/> Subcont. Asian American</p> <p><input type="checkbox"/> Other (i.e., not of any other group listed above)</p> <p>12. Gender</p> <p><input type="checkbox"/> Female</p> <p><input type="checkbox"/> Male</p>
<p>Federal Tax ID Number:</p> <hr/> <p>Firm Name:</p> <hr/> <p>Phone:</p> <hr/> <p>Address:</p> <hr/> <p>Year Firm Established:</p> <hr/>	<p>9. Subcontract Amount/Percentage</p> <p>(%): or (\$):</p> <hr/> <p>10. Annual Gross Receipts:</p> <p><input type="checkbox"/> Less than \$200,000</p> <p><input type="checkbox"/> \$200,001 - \$500,000</p> <p><input type="checkbox"/> \$500,001 - less than \$1 million</p> <p><input type="checkbox"/> \$1 million - less than \$5 million</p> <p><input type="checkbox"/> \$5 million - less than \$10 million</p> <p><input type="checkbox"/> \$10 million - less than \$20 million</p>	<p>11. Ethnic Categories</p> <p><input type="checkbox"/> Asian Pacific American</p> <p><input type="checkbox"/> B (Black American)</p> <p><input type="checkbox"/> H (Hispanic American)</p> <p><input type="checkbox"/> NA(Native American)</p> <p><input type="checkbox"/> Non-Minority Women</p> <p><input type="checkbox"/> Subcont. Asian American</p> <p><input type="checkbox"/> Other (i.e., not of any other group listed above)</p>

Supplier: **ESA**

**AFFILIATED ENTITIES OF THE PRINCIPAL(S) CERTIFICATION FORM**

The completed form should be submitted with the solicitation response but must be submitted within three business days of County’s request. Vendor may be deemed non-responsive for failure to fully comply within stated timeframes.

- a. All Vendors are required to disclose the names and addresses of “affiliated entities” of the Vendor’s principal(s) over the last five (5) years (from the solicitation opening deadline) that have acted as a prime Vendor with the County.
- b. The County will review all affiliated entities of the Vendor’s principal(s) for contract performance evaluations and the compliance history with the County’s Small Business Program, including CBE, DBE and SBE goal attainment requirements. “Affiliated entities” of the principal(s) are those entities related to the Vendor by the sharing of stock or other means of control, including but not limited to a subsidiary, parent or sibling entity.
- c. The County will consider the contract performance evaluations and the compliance history of the affiliated entities of the Vendor’s principals in its review and determination of responsibility.

The Vendor hereby certifies that: (select one)

- No principal of the proposing Vendor has prior affiliations that meet the criteria defined as “Affiliated entities”
- Principal(s) listed below have prior affiliations that meet the criteria defined as “Affiliated entities”

Principal’s Name: **Thomas Ries**

Names of Affiliated Entities: **Scheda Ecological Associates  
5892 E Fowler Ave, Temple  
Terrace, FL 33617**

Principal’s Name:

Names of Affiliated Entities:

Principal’s Name:

Names of Affiliated Entities:

Authorized Signature Name: **Julie Sullivan**

Title: **Vice President**

Vendor Name: **Environmental Science Associates**

Date: **1/22/2020**

**AGREEMENT EXCEPTION FORM**

The completed form(s) should be returned with the Vendor's submittal. If not provided with submittal, it shall be deemed an affirmation by the Vendor that it accepts the terms and conditions of the County's Agreement as disclosed in the solicitation.

The Vendor must either provide specific proposed alternative language on the form below. Additionally, a brief justification specifically addressing each provision to which an exception is taken should be provided.

- There are no exceptions to the terms and conditions of the County Agreement as referenced in the solicitation; or
- The following exceptions are disclosed below: (use additional forms as needed; separate each Article/ Section number)

<b>Term or Condition Article / Section</b>	<b>Insert version of exception or specific proposed alternative language</b>	<b>Provide brief justification for change</b>

**Vendor Name:** Environmental Science Associates

**Insurance Requirements: (Refer to the Insurance Requirement Form)**

- A. The insurance requirement designated in the **Insurance Requirement Form** indicates the minimum coverage required for the scope of work, as determined by the Risk Management Division. Vendor shall provide verification of compliance such as a Certificate of Insurance, or a letter of verification from the Vendor's insurance agent/broker, which states the ability of the Vendor to meet the requirements upon award. The verification must be submitted within three business days of County's request. Vendor may be deemed non-responsive for failure to fully comply within stated timeframes. Final award shall be subject to receipt and acceptance by the County of proof of meeting all insurance requirements of the bid.
- B. Without limiting any of the other obligations or liabilities of Vendor, Vendor shall provide, pay for, and maintain on a primary basis in force until all of its work to be performed under this Contract has been completed and accepted by County (or for such duration specified), at least the minimum insurance coverage and limits set forth in the Insurance Requirement Form under the following conditions listed below. If a limit or policy is not indicated on Insurance Requirement certificate by a checked box, it is not required as a condition of this contract.
  1. Commercial General Liability with minimum limits per occurrence, combined single limit for bodily injury and property damage, and when indicated a minimum limit per aggregate. County is to be expressly included as an Additional Insured in the name of Broward County arising out of operations performed for the County, by or on behalf of Vendor, or acts or omissions of Vendor in connection with general supervision of such operation. If Vendor uses a subcontractor, then Vendor shall require that subcontractor names County as an Additional Insured.
  2. Business Automobile Liability with minimum limits per occurrence, combined single limit for bodily injury and property damage. Scheduled autos shall be listed on Vendor's certificate of insurance. County is to be named as an additional insured in the name of Broward County.

Note: Insurance requirements for Automobile Liability are not applicable where delivery will be made by a third party carrier. All vendors that will be making deliveries in their own vehicles are required to provide proof of insurance for Automobile Liability and other pertinent coverages as indicated on the Insurance Requirement certificate, prior to award. If deliveries are being made by a third party carrier, other pertinent coverages listed on the Insurance Requirement certificate are still required.

Vendor should indicate how product is being delivered:

Vendor Name: **Environmental Science Associates**

Company Vehicle: Yes  or No

If Common Carrier (indicate carrier): **IOA Insurance Services**

Other:

- 3. Workers' Compensation insurance to apply for all employees in compliance with Chapter 440, the "Workers' Compensation Law" of the State of Florida and all applicable federal

laws. The policy must include Employers' Liability with minimum limits each accident. If any operations are to be undertaken on or about navigable waters, coverage must be included for the U.S. Longshoremen & Harbor Workers Act and Jones Act.

4. Excess Liability/Umbrella Insurance may be used to satisfy the minimum liability limits required; however, the annual aggregate limit shall not be less than the highest "each occurrence" limit for the underlying liability policy. Vendor shall endorse County as an Additional Insured unless the policy provides coverage on a pure/true "Follow-form" basis.
5. Builder's Risk or equivalent coverage (such as Property Insurance or Installation Floater) is required as a condition precedent to the issuance of the Second Notice to Proceed for projects involving but not limited to: changes to a building's structural elements, work compromising the exterior of the building for any extended period of time, installation of a large single component, or remodeling where the cost of remodeling is 20% or more the value of the property. Coverage shall be, "All Risks" Completed Value form with a deductible not to exceed Ten Thousand Dollars (\$10,000.00) each claim for all perils except for wind and flood.
6. For the peril of wind, the Vendor shall maintain a deductible that is commercially feasible which does not exceed five percent (5%) of the value of the Contract price. Such Policy shall reflect Broward County as an additional loss payee.
7. For the peril of flood, coverage must be afforded for the lesser of the total insurable value of such buildings or structures, and the maximum amount of flood insurance coverage available under the National Flood Program. Vendor shall maintain a deductible that is commercially feasible and does not exceed five percent (5%) of the value of the Contract price. Such Policy shall reflect Broward County as an additional loss payee.
8. The County reserves the right to provide Property Insurance covering the Project, materials, equipment and supplies intended for specific installation in the Project while such materials, equipment and supplies are located at the Project site, in transit, or while temporarily located away from the Project site. This coverage will not cover any of the Vendor's or subcontractors' tools, equipment, machinery or provide any business interruption or time element coverage to the Vendor(s).
9. If the County decides to purchase Property Insurance or provide for coverage under its existing insurance policy for this Project, then the insurance required to be carried by the Vendor may be modified to account for the insurance being provided by the County. Such modification may also include execution of Waiver of Subrogation documentation.
10. In the event that a claim occurs for this Project and is made upon the County's insurance policy, for other than a windstorm, Vendor will pay at least Ten Thousand Dollars (\$10,000.00) of the deductible amount for such claim.
11. Waiver of Occupancy Clause or Warranty: Policy must be specifically endorsed to eliminate any "Occupancy Clause" or similar warranty or representation that the building (s), addition(s) or structure(s) in the course of construction shall not be occupied without specific endorsement of the policy. The Policy must be endorsed to provide that the Builder's Risk coverage will continue to apply until final acceptance by County.
12. Pollution Liability or Environmental Impairment Liability: including clean-up costs, with minimum limits per claim, subject to a maximum deductible per claim. Such policy shall remain in force for the minimum length of time indicated, include an annual policy aggregate and name Broward County as an Additional Insured. Vendor shall be responsible for all deductibles in the event of a claim.

13. Professional Liability Insurance with minimum limits for each claim, subject to a maximum deductible per claim. Such policy shall remain in force for the minimum length of time indicated. Vendor shall notify County in writing within thirty (30) days of any claim filed or made against its Professional Liability Insurance policy. Vendor shall be responsible for all deductibles in the event of a claim. The deductible shall be indicated on the Vendor's Certificate of Insurance.

- C. Coverage must be afforded on a form no more restrictive than the latest edition of the respective policy form as filed by the Insurance Services Office. If the initial insurance expires prior to the completion and acceptance of the Work, renewal certificates shall be furnished upon expiration. County reserves the right to obtain a certified copy of any insurance policy required by this Section within fifteen (15) calendar days of a written request by County.
- D. Notice of Cancellation and/or Restriction: the policy(ies) must be endorsed to provide Broward County with at least thirty (30) days' notice of cancellation and/or restriction.
- E. The official title of the Certificate Holder is Broward County. This official title shall be used in all insurance documentation.
- F. Broward County's Risk Management Division reserves the right, but not the obligation, to review and revise any insurance requirements at the time of contract renewal and/or any amendments, not limited to deductibles, limits, coverages and endorsements based on insurance market conditions affecting the availability or affordability of coverage; or changes in the scope of work/specifications affecting the applicability of coverage.



**Supplier: ESA**

**LITIGATION HISTORY FORM**

The completed form(s) should be returned with the Vendor's submittal. If not provided with submittal, the Vendor must submit within three business days of County's request. Vendor may be deemed non-responsive for failure to fully comply within stated timeframes.

- There are no material cases for this Vendor; or
- Material Case(s) are disclosed below:

Is this for a: (check type) <input type="checkbox"/> Parent, <input type="checkbox"/> Subsidiary, or <input type="checkbox"/> Predecessor Firm?	If Yes, name of Parent/Subsidiary/Predecessor:
	Or No <input type="checkbox"/>
Party	
Case Number, Name, and Date Filed	
Name of Court or other tribunal	
Type of Case	Bankruptcy <input type="checkbox"/> Civil <input type="checkbox"/> Criminal <input type="checkbox"/> Administrative/Regulatory <input type="checkbox"/>
Claim or Cause of Action and Brief description of each Count	
Brief description of the Subject Matter and Project Involved	
Disposition of Case  (Attach copy of any applicable Judgment, Settlement Agreement and Satisfaction of Judgment.)	Pending <input type="checkbox"/> Settled <input type="checkbox"/> Dismissed <input type="checkbox"/>  Judgment Vendor's Favor <input type="checkbox"/> Judgment Against Vendor <input type="checkbox"/>  If Judgment Against, is Judgment Satisfied? <input type="checkbox"/> Yes <input type="checkbox"/> No
Opposing Counsel	Name: Email: Telephone Number:

**Vendor Name: Environmental Science Associates**

**LOBBYIST REGISTRATION REQUIREMENT CERTIFICATION FORM**

The completed form should be submitted with the solicitation response but must be submitted within three business days of County's request. Vendor may be deemed non-responsive for failure to fully comply within stated timeframes.

The Vendor certifies that it understands if it has retained a lobbyist(s) to lobby in connection with a competitive solicitation, it shall be deemed non-responsive unless the firm, in responding to the competitive solicitation, certifies that each lobbyist retained has timely filed the registration or amended registration required under Broward County Lobbyist Registration Act, Section 1-262, Broward County Code of Ordinances; and it understands that if, after awarding a contract in connection with the solicitation, the County learns that the certification was erroneous, and upon investigation determines that the error was willful or intentional on the part of the Vendor, the County may, on that basis, exercise any contractual right to terminate the contract for convenience.

The Vendor hereby certifies that: (select one)

- It has not retained a lobbyist(s) to lobby in connection with this competitive solicitation; however, if retained after the solicitation, the County will be notified.
- It has retained a lobbyist(s) to lobby in connection with this competitive solicitation and certified that each lobbyist retained has timely filed the registration or amended registration required under Broward County Lobbyist Registration Act, Section 1-262, Broward County Code of Ordinances.

It is a requirement of this solicitation that the names of any and all lobbyists retained to lobby in connection with this solicitation be listed below:

Name of Lobbyist:  
 Lobbyist's Firm:  
 Phone:  
 E-mail:

Name of Lobbyist:  
 Lobbyist's Firm:  
 Phone:  
 E-mail:

**Authorized Signature/Name: Julie Sullivan Date: 12/27/2019**

**Title: Vice President**

**Vendor Name: Environmental Science Associates**

Supplier: **ESA**

### RFP-RFQ-RLI LOCATION ATTESTATION FORM (EVALUATION CRITERIA)

The completed and signed form and supporting information (if applicable, for Joint Ventures) should be returned with the Vendor's submittal. If not provided with submittal, the Vendor must submit within three business days of County's request. Failure to timely submit this form and supporting information may affect the Vendor's evaluation. Provided information is subject to verification by the County.

A Vendor's principal place of business location (also known as the nerve center) within Broward County is considered in accordance with Evaluation Criteria. The County's definition of a principal place of business is:

1. As defined by the Broward County Local Preference Ordinance, "Principal place of business means the nerve center or center of overall direction, control and coordination of the activities of the bidder [Vendor]. If the bidder has only one (1) business location, such business location shall be considered its principal place of business."
2. A principal place of business refers to the place where a corporation's officers direct, control, and coordinate the corporation's day-to-day activities. It is the corporation's 'nerve center' and in practice it should normally be the place where the corporation maintains its headquarters; provided that the headquarters is the actual center of direction, control, and coordination, i.e., the 'nerve center', and not simply an office where the corporation holds its board meetings (for example, attended by directors and officers who have traveled there for the occasion).

The Vendor's principal place of business in Broward County shall be the Vendor's "Principal Address" as indicated with the Florida Department of State Division of Corporations, for at least six months prior to the solicitation's due date.

Check one of the following:

- The Vendor certifies that it has a principal place of business location (also known as the nerve center) within Broward County, as documented in Florida Department of State Division of Corporations (Sunbiz), and attests to the following statements:

1. Vendor's address listed in its submittal is its principal place of business as defined by Broward County;
2. Vendor's "Principal Address" listed with the Florida Department of State Division of Corporations is the same as the address listed in its submittal and the address was listed for at least six months prior to the solicitation's opening date. A copy of Florida Department of State Division of Corporations (Sunbiz) is attached as verification.
3. Vendor must be located at the listed "nerve center" address ("Principal Address") for at least six (6) months prior to the solicitation's opening date;
4. Vendor has not merged with another firm within the last six months that is not headquartered in Broward County and is not a wholly owned subsidiary or a holding company of another firm that is not headquartered in Broward County;
5. If awarded a contract, it is the intent of the Vendor to remain at the referenced address for the duration of the contract term, including any renewals, extensions or any approved

interim contracts for the services provided under this contract; and

6. The Vendor understands that if after contract award, the County learns that the attestation was erroneous, and upon investigation determines that the error was willful or intentional on the part of the Vendor, the County may, on that basis exercise any contractual right to terminate the contract. Further any misleading, inaccurate, false information or documentation submitted by any party affiliated with this procurement may lead to suspension and/or debarment from doing business with Broward County as outlined in the Procurement Code, Section 21.119.

If the Vendor is submitting a response as a Joint Venture, the following information is required to be submitted:

- a. Name of the Joint Venture Partnership
- b. Percentage of Equity for all Joint Venture Partners
- c. A copy of the executed Agreement(s) between the Joint Venture Partners

- Vendor does not have a principal place of business location (also known as the nerve center) within Broward County.

**Vendor Information:**

Vendor Name: **Environmental Science Associates**

Vendor's address listed in its submittal is:

**5401 South Kirkman Road Suite 475  
Orlando, FL 32819**

The signature below must be by an individual authorized to bind the Vendor. The signature below is an attestation that all information listed above and provided to Broward County is true and accurate.

<b>Julie Sullivan</b>	<b>Vice President</b>	<b>Environmental Science Associates</b>	<b>1/22/2020</b>
Authorized Signature/Name	Title	Vendor Name	Date

**Security Requirements – Aviation Department**

- A. Consultant/contractor agrees to observe all security requirements and other requirements of the Federal Aviation Regulations applicable to Consultant/contractor, including without limitation, all regulations of the United States Department of Transportation, the Federal Aviation Administration and the Transportation Security Administration, and the Consultant/contractor agrees to comply with the County's Airport Security Program and the Air Operations area (AOA) Vehicle Access Program, and amendments thereto, and to comply with such other rules and regulations as may be reasonably prescribed by the County, and to take such steps as may be necessary or directed by the County to insure that sub lessees, employees, invitees and guests observe these requirements. If required by the Aviation Department, Consultant/contractor shall conduct background checks of its employees in accordance with applicable Federal regulations.
- B. If as a result of the acts or omissions of Consultant/contractor, its sub lessees, employees, invitees or guests, the County incurs any fines and/or penalties imposed by any governmental agency, including without limitation, the United States Department of Transportation, the Federal Aviation Administration or the Transportation Security Administration, or any expense in enforcing any federal regulations, including without limitation, airport security regulations, or the rules or regulations of the County, and/or any expense in enforcing the County's Airport Security Program, then consultant/contractor agrees to pay and/or reimburse the County all such costs and expenses, including all costs of administrative proceedings, court costs, and attorneys' fees and all costs incurred by County in enforcing this provision. Consultant/contractor further agrees to rectify any security deficiency or other deficiency as may be determined as such by the County or the United States Department of Transportation, Federal Aviation Administration, the Transportation Security Administration, or any other federal agency. In the event consultant/contractor fails to remedy any such deficiency, the County may do so at the cost and expense of consultant/contractor. The County reserves the right to take whatever action is necessary to rectify any security deficiency or other deficiency.
- C. Operation of Vehicles on the AOA: Before the consultant/contractor shall permit any employee of consultant/contractor or any sub consultant/subcontractor to operate a motor vehicle of any kind or type on the AOA (and unless escorted by an Aviation Department approved escort), the consultant/contractor shall ensure that all such vehicle operators possess current, valid, and appropriate Florida driver's licenses. In addition, any motor vehicles and equipment of consultant/contractor or of any sub consultant/subcontractor operating on the AOA must have an appropriate vehicle identification permit issued by the Aviation Department, which identification must be displayed as required by the Aviation Department.
- D. Consent to Search/Inspection: The consultant/contractor agrees that its vehicles, cargo, goods, and other personal property are subject to being inspected and searched when attempting to enter or leave and while on the AOA. The consultant/contractor further agrees on behalf of itself and its sub consultant /subcontractors that it shall not authorize any employee or other person to enter the AOA unless and until such employee other person has executed a written consent-to-search/inspection form acceptable to the Aviation Department. Consultant/contractor acknowledges and understands that the forgoing requirements are for the protection of users of the Airport and are intended to reduce incidents of cargo tampering, aircraft sabotage, thefts and other unlawful activities at the Airport. For this reason, consultant/contractor agrees that persons not executing such consent-to-search/inspection form shall not be employed by the consultant/contractor or by any sub consultant/contractor at the Airport in any position requiring access to the AOA or allowed entry to the AOA by the consultant/contractor or by any sub consultant/contractors.
- E. The provisions hereof shall survive the expiration or any other termination of this contract.



Supplier: **ESA**



Finance and Administrative Services Department

**PURCHASING DIVISION**

115 S. Andrews Avenue, Room 212 • Fort Lauderdale, Florida 33301 • 954-357-6066 • FAX 954-357-8535

**Summary of Vendor Rights Regarding Broward County Competitive Solicitations**

The purpose of this document is to provide vendors with a summary of their rights to object to or protest a proposed award or recommended ranking of vendors in connection with Broward County competitive solicitations. These rights are fully set forth in the Broward County Procurement Code, which is available here: <https://www.broward.org/purchasing>.

**1. Right to Object**

The right to object is available for solicitations conducted through Requests for Proposals ("RFPs") or Requests for Letters of Interest ("RLIs"). In such solicitations, vendors may object in writing to a proposed recommendation of ranking made by a Selection or Evaluation Committee. Objections must be filed within three (3) business days after the proposed recommendation is posted on the Purchasing Division's website. The contents of an objection must comply with the requirements set forth in Section 21.84 of the Procurement Code. Failure to timely and fully meet any requirement will result in a loss of the right to object.

**2. Right to Protest**

The right to protest is available for RFPs and RLIs and in solicitations conducted through Invitations to Bid ("ITBs"). In RFPs and RLIs, vendors may protest a final recommendation of ranking made by a Selection or Evaluation Committee. In ITBs, vendors may protest a final recommendation for award made by the Broward County Purchasing Division.

In all cases, protests must be filed in writing within three (3) or five (5) business days after a recommended ranking or recommendation for award is posted on Purchasing Division's website. The timeframe for filing (*i.e.*, 3 or 5 business days) depends on the monetary value of the procurement. Additional requirements for a protest are set forth in Section 21.118 of the Procurement Code. Failure to timely and fully meet any requirement will result in a loss of protest rights.

Vendors may appeal the denial of a protest. Appeals may require payment of an appeal bond. Additional requirements for an appeal are set forth in Section 21.120 of the Procurement Code. Failure to timely and fully meet any requirement will result in a loss of appeal rights.

**3. Cone of Silence; Right to Contact OESBD**

Please be aware that a Cone of Silence remains in effect for competitive solicitations until a solicitation is completed or a contract is awarded. During that time period, vendors may not contact certain County officials and employees regarding a solicitation. Substantial penalties may result from even an unintentional violation. For further information, please contact the Purchasing Division at 954-357-6066 or refer to the Cone of Silence Ordinance which is available here: <https://www.broward.org/Purchasing/Documents/ConeOfSilence.pdf>.

However, vendors may communicate with a representative of the Office of Economic and Small Business Development ("OESBD") at any time regarding a solicitation or regarding participation of Small Business Enterprises or County Business Enterprises in a solicitation. OESBD may be contacted at (954) 357-6400. The Cone of Silence also permits communication with certain other County employees (please see the Cone of Silence Ordinance at the above link for further details).

Broward County Board of County Commissioners

Mark D. Bogen • Lamar P. Fisher • Beam Furr • Steve Geller • Dale V.C. Holness • Nan H. Rich • Tim Ryan • Barbara Sharief • Michael Udine  
[www.broward.org](http://www.broward.org)

Broward County Board of





Supplier: **ESA**

## VENDOR'S OPPORTUNITY LIST FORM

The completed form(s) should be returned with the Vendor's submittal. If not provided with submittal, the Vendor must submit within three business days of County's request. Vendor may be deemed non-responsive for failure to fully comply within stated timeframes.

This solicitation consists of federally assisted funds and federal law requires Broward County to maintain a database of all firms that are participating or attempting to participate in federally assisted contracts, sponsored Department of Transportation (D.O.T.).

The form should include the Vendor's information, as well as any prospective subcontractor/subconsultant that the Vendor contacted or who contacted the Vendor regarding this solicitation.

### Prime Vendor Information

Federal Tax ID Number: <b>-1698350</b> Firm Name: <b>Environmental Science Associates</b>  Phone: <b>(77) 403 -6300</b> Address: <b>101 South Kirkman Road Suite 475</b> <b>Lakeland, FL 32819</b>  Year Firm Established: <b>1969</b>  <input type="checkbox"/> DBE <input checked="" type="checkbox"/> Non-DBE  Type of work bid on: <b>Project Management, Environmental,</b> <b>Design, Planning</b>  Please be specific in regard to the type of work). Contract Amount or Percentage : <b>65</b> or (\$):	9. Annual Gross Receipts <input type="checkbox"/> Less than \$200,000 <input type="checkbox"/> \$200,001 - \$500,000 <input type="checkbox"/> \$500,001 - less than \$1 million <input type="checkbox"/> \$1 million - less than \$5 million <input type="checkbox"/> \$5 million - less than \$10 million <input type="checkbox"/> \$10 million - less than \$20 million <input type="checkbox"/> \$20 million - less than \$50 million <input type="checkbox"/> \$50 million - less than \$100 million <input checked="" type="checkbox"/> \$100 million - less than \$500 million <input type="checkbox"/> \$500 million - less than \$1 billion <input type="checkbox"/> Over \$1 billion	10. Ethnic Categories <input type="checkbox"/> B (Black American) <input type="checkbox"/> H (Hispanic American) <input type="checkbox"/> NA(Native American) <input type="checkbox"/> Subcont. Asian American <input type="checkbox"/> Asian Pacific American <input type="checkbox"/> Non- Minority Women <input type="checkbox"/> Other (i.e., not of any other group listed above)  11. Gender <input type="checkbox"/> Female <input type="checkbox"/> Male
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(Continued)

### Subcontractor/Subconsultant Information

Provide this information for any subcontractor/subconsultant who provided the Prime Vendor with a bid/quote/proposal to perform work on the project; or any subcontractor/subconsultant solicited by the Prime Vendor to provide a bid/quote/proposal. Provide additional forms for Subcontractor /Subconsultant Information as needed.

Federal Tax ID Number: <b>-3663903</b>	9. Subcontract Amount/Percentage (%): <b>12</b> or (\$):	11. Ethnic Categories <input type="checkbox"/> Asian Pacific American <input type="checkbox"/> B (Black American) <input type="checkbox"/> H (Hispanic American) <input type="checkbox"/> NA(Native American) <input type="checkbox"/> Non-Minority Women <input type="checkbox"/> Subcont. Asian American <input type="checkbox"/> Other (i.e., not of any other group listed above)
Firm Name: <b>condo &amp; Associates, Inc.</b>	10. Annual Gross Receipts: <input type="checkbox"/> Less than \$200,000 <input type="checkbox"/> \$200,001 - \$500,000 <input type="checkbox"/> \$500,001 - less than \$1 million <input type="checkbox"/> \$1 million - less than \$5 million <input type="checkbox"/> \$5 million - less than \$10 million <input type="checkbox"/> \$10 million - less than \$20 million <input checked="" type="checkbox"/> \$20 million - less than \$50 million <input type="checkbox"/> \$50 million - less than \$100 million <input type="checkbox"/> \$100 million - less than \$500 million <input type="checkbox"/> \$500 million - less than \$1 billion <input type="checkbox"/> Over \$1 billion	12. Gender <input type="checkbox"/> Female <input type="checkbox"/> Male
Phone: <b>12) 606 -0611</b>		
Address: <b>North Clark Street, Suite 1500</b>		
<b>Chicago, Illinois 60602</b>		
Year Firm Established: <b>1989</b> <input type="checkbox"/> DBE <input checked="" type="checkbox"/> Non-DBE <input type="checkbox"/> Subcontractor <input checked="" type="checkbox"/> Subconsultant Type of work bid on: <b>Planning</b>		
Please be specific in regard to the type of work.		
Federal Tax ID Number: <b>-0891158</b>	9. Subcontract Amount/Percentage (%): <b>9</b> or (\$):	11. Ethnic Categories <input type="checkbox"/> Asian Pacific American <input type="checkbox"/> B (Black American) <input checked="" type="checkbox"/> H (Hispanic American) <input type="checkbox"/> NA(Native American) <input type="checkbox"/> Non-Minority Women <input type="checkbox"/> Subcont. Asian American <input type="checkbox"/> Other (i.e., not of any other group listed above)
Firm Name: <b>Seerokee Enterprises, Inc.</b>	10. Annual Gross Receipts: <input type="checkbox"/> Less than \$200,000 <input type="checkbox"/> \$200,001 - \$500,000 <input type="checkbox"/> \$500,001 - less than \$1 million <input type="checkbox"/> \$1 million - less than \$5 million <input type="checkbox"/> \$5 million - less than \$10 million <input type="checkbox"/> \$10 million - less than \$20 million <input checked="" type="checkbox"/> \$20 million - less than \$50 million <input type="checkbox"/> \$50 million - less than \$100 million <input type="checkbox"/> \$100 million - less than \$500 million <input type="checkbox"/> \$500 million - less than \$1 billion	12. Gender <input type="checkbox"/> Female <input checked="" type="checkbox"/> Male
Phone: <b>(305) 828-3353</b>		
Address: <b>1981 NW 113th Court</b>		
<b>Medley, FL 33178</b>		
Year Firm Established: <b>1999</b> <input checked="" type="checkbox"/> DBE <input type="checkbox"/> Non-DBE <input type="checkbox"/> Subcontractor <input checked="" type="checkbox"/> Subconsultant Type of work bid on:		

Environmental Site Investigation

Over \$1 billion

Please be specific in regard to the type of risk.

Supplier: **ESA**

### VOLUME OF PREVIOUS WORK ATTESTATION FORM

The completed and signed form should be returned with the Vendor's submittal. If not provided with submittal, the Vendor must submit within three business days of County's request. Failure to provide timely may affect the Vendor's evaluation.

**This completed form MUST be included with the Vendor's submittal at the time of the opening deadline to be considered for a Tie Breaker criterion (if applicable).**

Points assigned for Volume of Previous Work will be based on the amount paid-to-date by the County to a prime Vendor **MINUS** the Vendor's confirmed payments paid-to-date to approved certified County Business Enterprise (CBE) firms performing services as Vendor's subcontractor/subconsultant to obtain the CBE goal commitment as confirmed by County's Office of Economic and Small Business Development. Reporting must be within five (5) years of the current solicitation's opening date.

Vendor must list all received payments paid-to-date by contract as a prime vendor from Broward County Board of County Commissioners. Reporting must be within five (5) years of the current solicitation's opening date.

Vendor must also list all total confirmed payments paid-to-date by contract, to approved certified CBE firms utilized to obtain the contract's CBE goal commitment. Reporting must be within five (5) years of the current solicitation's opening date.

In accordance with Section 21.31.d. of the Broward County Procurement Code, the Vendor with the lowest dollar volume of work previously paid by the County over a five-year period from the date of the submittal opening will receive the Tie Breaker.

**The Vendor attests to the following:**

Item No.	Project Title	Contract No.	Department/ Division	Date Awarded	Prime: Paid to Date	CBE: Paid to Date
1.	<b>FLL Part 150 Noise Compatibility Planning</b>	<b>R1330212P1</b>	<b>Aviation (BCAD)</b>	<b>7/28/2016</b>	<b>1059764.71</b>	<b>207845.11</b>
2.	<b>Broward County Environmental Library</b>	<b>F1154201B1</b>	<b>Environmental</b>	<b>10/22/2013</b>	<b>131124.4</b>	
3.						
4.						
5.						
6.						
7.						

Grand Total **1,190,889.11 207845.11**

Has the Vendor been a member/partner of a Joint Venture firm that was awarded a contract by the County?

Yes  No

If Yes, Vendor must submit a **Joint Vendor Volume of Work Attestation Form**.

**Vendor Name: Environmental Science Associates**

**Julie Sullivan**  
**Authorized Signature/Name**

**Vice President**  
**Title**

**1/22/2020**  
**Date**



## VOLUME OF PREVIOUS WORK ATTESTATION JOINT VENTURE FORM

If applicable, this form and additional required documentation should be submitted with the Vendor's submittal. If not provided with submittal, the Vendor must submit within three business days of County's request. Failure to timely submit this form and supporting documentation may affect the Vendor's evaluation.

If a Joint Venture, the payments paid-to-date by contract provided must encompass the Joint Venture and each of the entities forming the Joint Venture. Points assigned for Volume of Previous Work will be based on the amount paid-to-date by contract to the Joint Venture firm **MINUS** all confirmed payments paid-to-date to approved certified CBE firms utilized to obtain the CBE goal commitment. Reporting must be within five (5) years of the current solicitation's opening date. Amount will then be multiplied by the member firm's equity percentage.

In accordance with Section 21.31.d. of the Broward County Procurement Code, the Vendor with the lowest dollar volume of work previously paid by the County over a five-year period from the date of the submittal opening will receive the Tie Breaker.

**The Vendor attests to the following:**

Item No.	Project Title	Contract No.	Department/ Division	Date Awarded	JV Equity Percent	Prime: Paid to Date	CBE: Paid to Date
1.							
2.							
3.							
4.							
5.							
6.							
7.							
8.							

Grand  
Total

Vendor is required to submit an executed Joint Venture agreement(s) and any amendments for each project listed above. Each agreement must be executed prior to the opening date of this solicitation.

**Vendor Name:**

**Authorized Signature/Name**

**Title**

**Date**

**VENDOR QUESTIONNAIRE AND STANDARD CERTIFICATIONS**  
**Request for Proposals, Request for Qualifications, or Request for Letters of Interest**

Vendor should complete questionnaire and complete and acknowledge the standard certifications and submit with the solicitation response. If not submitted with solicitation response, it must be submitted within three business days of County's request. Failure to timely submit may affect Vendor's evaluation.

**If a response requires additional information, the Vendor should upload a written detailed response with submittal; each response should be numbered to match the question number.** The completed questionnaire and attached responses will become part of the procurement record. It is imperative that the person completing the Vendor Questionnaire be knowledgeable about the proposing Vendor's business and operations.

1. Legal business name:**Environmental Science Associates**
2. Doing Business As/ Fictitious Name (if applicable):
3. Federal Employer I.D. no. (FEIN):**94-1698350**
4. Dun and Bradstreet No.:**07-738-1697**
5. Website address (if applicable): **www.esassoc.com**
6. Principal place of business address: **550 Kearny Street, Suite 800  
San Francisco, CA 94108**
7. Office location responsible for this project: **5401 South Kirkman Road Suite 475  
Orlando, FL 32819**
8. Telephone no.:**407-403-6300** Fax no.:**407-403-6301**
9. Type of business (check appropriate box):
  - Corporation (specify the state of incorporation):**California**
  - Sole Proprietor
  - Limited Liability Company (LLC)
  - Limited Partnership
  - General Partnership (State and County Filed In)
  - Other - Specify
10. List Florida Department of State, Division of Corporations document number (or registration number if fictitious name): **F00000001598**
11. List name and title of each principal, owner, officer, and major shareholder:
  - a) **Leslie Moulton, CEO**
  - b) **Leslie Moulton, CEO**
  - c) **Eric Haase, COO**
  - d) **ESOP**
12. AUTHORIZED CONTACT(S) FOR YOUR FIRM:

Name: **Michael Arnold**  
Title: **Senior Vice President**  
E-mail: **marnold@esassoc.com**  
Telephone No.: **407-312-1294**

Name: **Julie Sullivan**  
Title: **Vice President**  
E-mail: **jsullivan@esassoc.com**  
Telephone No.: **407-748-2729**

- 13. Has your firm, its principals, officers or predecessor organization(s) been debarred or suspended by any government entity within the last three years? If yes, specify details in an attached written response.  Yes  No
- 14. Has your firm, its principals, officers or predecessor organization(s) ever been debarred or suspended by any government entity? If yes, specify details in an attached written response, including the reinstatement date, if granted.  Yes  No
- 15. Has your firm ever failed to complete any services and/or delivery of products during the last three (3) years? If yes, specify details in an attached written response.  Yes  No
- 16. Is your firm or any of its principals or officers currently principals or officers of another organization? If yes, specify details in an attached written response.  Yes  No
- 17. Have any voluntary or involuntary bankruptcy petitions been filed by or against your firm, its parent or subsidiaries or predecessor organizations during the last three years? If yes, specify details in an attached written response.  Yes  No
- 18. Has your firm's surety ever intervened to assist in the completion of a contract or have Performance and/or Payment Bond claims been made to your firm or its predecessor's sureties during the last three years? If yes, specify details in an attached written response, including contact information for owner and surety.  Yes  No
- 19. Has your firm ever failed to complete any work awarded to you, services and/or delivery of products during the last three (3) years? If yes, specify details in an attached written response.  Yes  No
- 20. Has your firm ever been terminated from a contract within the last three years? If yes, specify details in an attached written response.  Yes  No
- 21. Living Wage solicitations only: In determining what, if any, fiscal impacts(s) are a result of the Ordinance for this solicitation, provide the following for informational purposes only. Response is not considered in determining the award of this contract.  
Living Wage had an effect on the pricing.  Yes  No  
 N/A  
If yes, Living Wage increased the pricing by% or decreased the pricing by%.

**Cone of Silence Requirement Certification:**

The Cone of Silence Ordinance, Section 1-266, Broward County Code of Ordinances prohibits certain communications among Vendors, Commissioners, County staff, and Selection or Evaluation Committee members. Identify on a separate sheet any violations of this Ordinance by any members of the responding firm or its joint ventures. After the application of the Cone of Silence, inquiries regarding this solicitation should be directed to the Director of Purchasing or designee. The Cone of Silence terminates when the County Commission or other awarding authority takes action which ends the solicitation.

The Vendor hereby certifies that: (check each box)

- The Vendor has read Cone of Silence Ordinance, Section 1-266, Broward County Code of Ordinances; and
- The Vendor understands that the Cone of Silence for this competitive solicitation shall be in effect beginning



upon the appointment of the Selection or Evaluation Committee, for communication regarding this solicitation with the County Administrator, Deputy County Administrator, Assistant County Administrators, and Assistants to the County Administrator and their respective support staff or any person, including Evaluation or Selection Committee members, appointed to evaluate or recommend selection in this RFP/RLI process. For Communication with County Commissioners and Commission staff, the Cone of Silence allows communication until the initial Evaluation or Selection Committee Meeting.

- The vendor understands that they may communicate with a representative of the Office of Economic and Small Business Development ("OESBD") at any time regarding a solicitation or regarding participation of Small Business Enterprises or County Business Enterprises in a solicitation. OESBD may be contacted at (954) 357-6400. The Cone of Silence also permits communication with certain other County employees (refer to the Cone of Silence Ordinance).
- The Vendor agrees to comply with the requirements of the Cone of Silence Ordinance.

**Drug-Free Workplace Requirements Certification:**

Section 21.31.a. of the Broward County Procurement Code requires awards of all competitive solicitations requiring Board award be made only to firms certifying the establishment of a drug free workplace program. The program must consist of:

1. Publishing a statement notifying its employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the offeror's workplace, and specifying the actions that will be taken against employees for violations of such prohibition;
2. Establishing a continuing drug-free awareness program to inform its employees about:
  - a. The dangers of drug abuse in the workplace;
  - b. The offeror's policy of maintaining a drug-free workplace;
  - c. Any available drug counseling, rehabilitation, and employee assistance programs; and
  - d. The penalties that may be imposed upon employees for drug abuse violations occurring in the workplace;
3. Giving all employees engaged in performance of the contract a copy of the statement required by subparagraph 1;
4. Notifying all employees, in writing, of the statement required by subparagraph 1, that as a condition of employment on a covered contract, the employee shall:
  - a. Abide by the terms of the statement; and
  - b. Notify the employer in writing of the employee's conviction of, or plea of guilty or nolo contendere to, any violation of Chapter 893 or of any controlled substance law of the United States or of any state, for a violation occurring in the workplace NO later than five days after such conviction.
5. Notifying Broward County government in writing within 10 calendar days after receiving notice under subdivision 4.b above, from an employee or otherwise receiving actual notice of such conviction. The notice shall include the position title of the employee;
6. Within 30 calendar days after receiving notice under subparagraph 4 of a conviction, taking one of the following actions with respect to an employee who is convicted of a drug abuse violation occurring in the workplace:
  - a. Taking appropriate personnel action against such employee, up to and including termination; or
  - b. Requiring such employee to participate satisfactorily in a drug abuse assistance or rehabilitation program approved for such purposes by a federal, state, or local health, law enforcement, or other appropriate agency; and
7. Making a good faith effort to maintain a drug-free workplace program through implementation of subparagraphs 1 through 6.

The Vendor hereby certifies that: (check box)

- The Vendor certifies that it has established a drug free workplace program in accordance with the above

requirements.

**Non-Collusion Certification:**

Vendor shall disclose, to their best knowledge, any Broward County officer or employee, or any relative of any such officer or employee as defined in Section 112.3135 (1) (c), Florida Statutes, who is an officer or director of, or has a material interest in, the Vendor's business, who is in a position to influence this procurement. Any Broward County officer or employee who has any input into the writing of specifications or requirements, solicitation of offers, decision to award, evaluation of offers, or any other activity pertinent to this procurement is presumed, for purposes hereof, to be in a position to influence this procurement. Failure of a Vendor to disclose any relationship described herein shall be reason for debarment in accordance with the provisions of the Broward County Procurement Code.

The Vendor hereby certifies that: (select one)

- The Vendor certifies that this offer is made independently and free from collusion; or
- The Vendor is disclosing names of officers or employees who have a material interest in this procurement and is in a position to influence this procurement. Vendor must include a list of name(s), and relationship(s) with its submittal.

**Public Entities Crimes Certification:**

In accordance with Public Entity Crimes, Section 287.133, Florida Statutes, a person or affiliate placed on the convicted vendor list following a conviction for a public entity crime may not submit on a contract: to provide any goods or services; for construction or repair of a public building or public work; for leases of real property to a public entity; and may not be awarded or perform work as a contractor, supplier, subcontractor, or consultant under a contract with any public entity; and may not transact business with any public entity in excess of the threshold amount provided in s. 287.017 for Category Two for a period of 36 months following the date of being placed on the convicted vendor list.

The Vendor hereby certifies that: (check box)

- The Vendor certifies that no person or affiliates of the Vendor are currently on the convicted vendor list and/or has not been found to commit a public entity crime, as described in the statutes.

**Scrutinized Companies List Certification:**

Any company, principals, or owners on the Scrutinized Companies with Activities in Sudan List, the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List, or the Scrutinized Companies that Boycott Israel List is prohibited from submitting a response to a solicitation for goods or services in an amount equal to or greater than \$1 million.

The Vendor hereby certifies that: (check each box)

- The Vendor, owners, or principals are aware of the requirements of Sections 287.135, 215.473, and 215.4275, Florida Statutes, regarding Companies on the Scrutinized Companies with Activities in Sudan List the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List, or the Scrutinized Companies that Boycott Israel List; and
- The Vendor, owners, or principals, are eligible to participate in this solicitation and are not listed on either the Scrutinized Companies with Activities in Sudan List, the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List, or the Scrutinized Companies that Boycott Israel List; and
- If awarded the Contract, the Vendor, owners, or principals will immediately notify the County in writing if any of its principals are placed on the Scrutinized Companies with Activities in Sudan List, the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List, or the Scrutinized Companies that Boycott Israel List.

I hereby certify the information provided in the Vendor Questionnaire and Standard Certifications:

<b>Julie Sullivan</b>	<b>Vice President</b>	<b>1/22/2020</b>
*AUTHORIZED SIGNATURE/NAME	TITLE	DATE

Vendor Name: **Environmental Science Associates**

\* I certify that I am authorized to sign this solicitation response on behalf of the Vendor as indicated in Certificate as to Corporate Principal, designation letter by Director/Corporate Officer, or other business authorization to bind on behalf of the Vendor. As the Vendor's authorized representative, I attest that any and all statements, oral, written or otherwise, made in support of the Vendor's response, are accurate, true and correct. I also acknowledge that inaccurate, untruthful, or incorrect statements made in support of the Vendor's response may be used by the County as a basis for rejection, rescission of the award, or termination of the contract and may also serve as the basis for debarment of Vendor pursuant to Section 21.119 of the Broward County Procurement Code. I certify that the Vendor's response is made without prior understanding, agreement, or connection with any corporation, firm or person submitting a response for the same items/services, and is in all respects fair and without collusion or fraud. I also certify that the Vendor agrees to abide by all terms and conditions of this solicitation, acknowledge and accept all of the solicitation pages as well as any special instructions sheet(s).