



**RFQ #2015-01**

**VILLAGE OF ESTERO, FLORIDA**

**Request for Qualifications for General Planning Services for  
the Village's Community Development Department**

**Turrell, Hall & Associates, Inc.**

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# TURRELL, HALL & ASSOCIATES, INC.

MARINE & ENVIRONMENTAL CONSULTING

3584 Exchange Avenue, Suite B • Naples, Florida 34104-3732 • (239) 643-0166 • Fax 643-6632 • thall@turrell-associates.com

August 4, 2015

The Village of Estero  
Attn: Mr. Peter G. Lombardi, Village Manager  
21500 Three Oaks Parkway  
Estero, FL 33928

**Re: Request for Qualification #2015-01  
Village of Estero, Florida Request for Qualifications for General Planning  
Services for the Village's Community Development Department**

Dear Mr. Lombardi:

Turrell, Hall & Associates, Inc. is pleased to provide you with this package of information detailing our qualifications to assist the Village of Estero with future Planning needs. Our firm has been providing specialized professional consulting services in environmental and marine science and engineering for over 25 years. Established in 1989, Turrell, hall & Associates (THA) is based in Naples, and works throughout the State and The Bahamas, primarily. We are particularly interested in the Environmental Review and Enforcement needs described within RFQ #2015-1.

Our firm has permitted numerous private projects through various levels of municipal government and has also assisted municipalities with their own permitting needs throughout Southwest Florida, which provides us with the understanding of comprehensive plans, the zoning process, and development orders you will need to provide these services to Village residents, developers and/or associations.

Each member of our staff has a particular expertise such as wetland determinations, mitigation monitoring, wildlife studies and analyses, marine and wetland permitting, construction planning and drawings, bid document preparation and bidding, protected species surveying, protected species permitting and relocation, environmental construction oversight, permit compliance oversight and reporting, Coastal Construction Control Line permitting (CCCL), educational plans and signage, habitat and species management plans, habitat creation plans, mitigation planning and permitting, and water quality monitoring.

Some examples of our current municipal work include:

- **Clam Bay Natural Resource Protection Area (NRPA) Environmental Management**  
Turrell, Hall & Associates, Inc. has been the lead consultant in the team assembled to help restore the mangroves and seagrasses within the Clam Bay estuary since 1998. Our continuing services include:
  - Annual oversight of 500 acres of mangrove and estuarine habitat
  - Education materials and signage for Pelican Bay community and tram trails along Clam Bay
  - Canoe trail marker permitting and maintenance through the estuary

- Environmental monitoring and construction oversight for Clam Pass and Clam Bay channel dredging
  - Creation of Clam Bay Ecosystem Management Plan
  - Applying for and processing of new 10-Year Clam Bay Management Permits
  - Annual monitoring of benthic and natural resources
  - Water quality data input and analysis
- **Picayune Strand Restoration CERP Project Environmental Management**

This CERP project consists of spoil and road removal, canal plugging, and construction of the pump stations, and associated features which will help restore habitats in Picayune Strand State Forest to pre-development conditions. Turrell, Hall worked with the U. S. Fish & Wildlife Service, the Army Corps of Engineers, and the contractors to develop Environmental Protection Plans for the various project phases. THA coordinates with the contractor to ensure all aspects of work remain compliant with environmental permitting and the biological opinion. THA also created listed species educational programs, pamphlets, posters and a video which are required to be reviewed before any visitors or personnel can enter the project site. We are also currently providing the Environmental Impact Assessment for blasting activities associated with a new manatee feature in Port of the Islands associated with this permit and conducting daily wildlife and/or nest surveys to delineate protective buffer zones during construction.
  - **Naples Pier Restoration Sea Turtle Monitoring**

Working under the contractor rehabilitating the Naples Pier this summer, THA is providing daily, early morning sea turtle nest surveying within the permitted parameters for the construction and construction staging. Following each early morning survey reports are submitted to the appropriate agencies on the findings and any new nest locations are marked and coordinated with the contractor.
  - **Naples City Dock Fuel Dock Rehabilitation and Future Dock Renovations**

Turrell, Hall & Associates was hired by the City of Naples to create plan for replacing the current dilapidated fuel dock at the City Dock on Naples Bay and prepare construction estimates needed for approval by City Council. Once approved we will permit the new design with state and federal agencies, while providing modifications as needed to the current Sovereign Submerged Lands Lease at the City Dock upon permit issuance. Construction plans, bid document preparation and bidding assistance will also be provided by our staff under this Purchase Order.

We are also working with the City to come up with a plan and estimates to rehab the entire dock system and Dockmaster facility in phases since the entire structure is showing signs of age and is reaching the limit of patch-type repairs.

- **Submerged Resource Surveys for Doctor's Pass Jetty Rehabilitation (Naples) and Big Carlos Pass Dredging and Beach Renourishment (Bonita Springs)**

Turrell, Hall & Associates staff performs dozens of submerged resource surveys each year and most recently (2015) performed surveys for jetty rehabilitation at Doctor's Pass in Naples and in Big Carlos Pass for maintenance dredging and beach renourishment permits. A relocation plan was also prepared for the Department of Environmental Protection to relocate some cup corals which were found to be living amongst the jetty rocks in Doctor's Pass.

Based on our experience we feel we are qualified to provide the environmental services outlined in RFQ #2015-1 and other services which will no doubt arise as the Village begins to process more applications.

Please feel free to contact the following references if you have any questions about our services and commitment to our clients.

**City of Naples- Capt. Roger Jacobsen (Harbor Master and Code Enforcement)**

735 8<sup>th</sup> Street South, Naples, FL 34102-5882

(239) 213-5030

[rjacobsen@naplesgov.com](mailto:rjacobsen@naplesgov.com)

**Pelican Bay Services Division (of Collier County) - Neil Dorrill (PBSD Administrator)**

Dorrill Management Group

5672 Strand Court, Suite 1, Naples, FL 34110

(239) 592-9115

[neil@dmgfl.com](mailto:neil@dmgfl.com)

Thank you for your consideration and please feel free to call or email us with questions.

Sincerely,

A handwritten signature in blue ink, appearing to read 'TH Hall', is positioned above the typed name and title.

Timothy Hall, Vice President  
Turrell, Hall & Associates, Inc.

**QUALIFICATIONS BASED ON RFQ #2015-1  
DESCRIPTION**

## **INFORMATION RELEVANT TO ENVIRONMENTAL REVIEW & ENFORCEMENT**

*Environmental Review of comprehensive plan amendments, rezoning applications, special exceptions, and development orders, including reviewing protected species surveys and management plans associated with large projects. Also includes Certificate of Compliance reviews for landscaping, preserved vegetation, stormwater pond plantings, invasive exotic plan removal, management plans, and open space requirements related to development orders.*

Turrell, Hall & Associates staff are well versed in local environmental review processes, amendments to codes and comprehensive plans, and variances from the approved codes. Not only do we process a wide variety of projects and approval types with local governments, we also take part in stakeholder groups for various amendment changes in Collier County offering suggestions to refine rules and make them clearer for interpretation by both government staff and consultants.

Frequently because of the environmentally sensitive areas where our projects lie (islands, bays, special treatment (ST) areas, coastal construction line zones, aquatic preserves, etc.) we have to process multiple different types of permits for one project. In some cases this requires special hearings for variances and dock extensions. Because of the sensitive habitats listed species surveying is always a requirement and frequently listed species and/or habitat management plans are also needed to guide the developer through construction and into operations. In habitat or preserve management plans landscape and planting recommendations are made with buffers to protect native habitats. A planting plan might consist of vegetation sizing, spacing, species, numbers and costs associated with plant purchase and installation.

Littoral planting plans should include elevation changes and species specific to those elevations to provide both habitat and ensure survivorship of the plantings. We recently created a 5-acre woodstork foraging habitat at Esplanade Golf & Country Club, which is located at the southwest corner of the Corkscrew Watershed. In the plan we utilized undulating elevations with different plantings at each depth so that as the water table drops, there will always be habitat for fish and foraging areas for resident wood storks. (See attached project sheet on Esplanade)

THA has staff specializing in permit compliance oversight and monitoring. Services under compliance might include wetland mitigation monitoring and reporting, coordination of exotic removal activities and oversight, exotic removal bidding, project permit compliance review and inspections, permit compliance documentation submittal to various agencies, modification of schedules and permits as needed, modifications to Sovereign Submerged Lands Leases and Lease inspections.

### ***Review and approval of Vegetation Permits.***

***Vegetation Removal Permits for existing trees in common areas of development that are deemed to pose a safety hazard to pedestrian or vehicular traffic or existing buildings or structures; diseased trees which are a hazard; or trees weakened by natural causes as specified in the LDC. To be completed in 7-10 business days.***

THA processes Vegetation Removal Permits for residents regularly with the various municipalities and at times authorization with the South Florida Water Management District if the tree lies on the inner edge of a preserve, but is potentially endangering a home or pool cage. Permitting involves species, numbers, reasoning for necessity, method of removal, disposal plans, evidence of property ownership, owner/agent affidavit, and aerial drawings.

***Notices of Clearing- staff conducts a survey for protected species, prepares a document to send to the Clerk of Courts for recording, as required by the LDC and Administrative code. To be completed within 30-45 days.***

When site clearing is expected, then protected species surveys must be done onsite ensuring the safety of any nests and listed species. Fox Squirrel nest surveys are the most common prior to construction and are usually required by permit special condition. Once the site has been inspected and no evidence of listed species presence or utilization is found then the site clearing can commence and paperwork to that effect is filed with the permitting wildlife agencies. This survey is part of the permit compliance services THA offers during construction activities.

If a species is present then either the species has to be allowed to leave the site of its own accord (depending on the species), has to be relocated offsite (by permit), or in the case of certain nesting species like osprey, a permit is required to remove a nest once any chicks have fledged.

***Exotic Removal- inspection and provision of courtesy letter confirming the presence of exotic species on property and recommending methods of removal to avoid damaging existing native vegetation.***

Identification of non-native and nuisance vegetation first requires expert knowledge of desirable local flora. It also requires the need for experience with a long list of Category I and II listed exotic and nuisance species, as identified by the Florida Exotic Plant Pest Council, in terms of identification and the best means of eradication. Our permit compliance specialist has 17 years of plant identification and monitoring experience, working daily with exotic removers on species that need to be killed or removed and methodology for that removal. Exotic species removal can be accomplished by hand pulling, cutting and spraying the stumps, foliar spraying over a large area of infestation, killing in-place by girdling and treating the girdle with herbicide, cutting and stacking, or cutting and removal offsite. The methodology is typically outlined in a pre-prepared vegetation management plan, but if not the surround natural environment would dictate the best method for preventing damage to adjacent desirable vegetation.

***Compliance and Enforcement- inspections of development sites to ensure ongoing compliance with environmental regulations and development approvals and identify environmentally-related code violations. Initial inspection 1-2 days from receipt of compliant, Notice of Violation sent within 8 business days of inspection, participation in Enforcement Hearing.***

Specialized compliance staff at THA follow a project's permit/development conditions from issuance to final release (sometimes years later). This work involves site inspections,

coordination with developers and/or associations, coordination with vegetation maintenance and removal companies, coordination with regulatory compliance personnel, assistance with remedies to violations or problems, and verification that violations have been remedied.

Common compliance issues include silt fence maintenance failure, accidental impacts to preserve areas by construction equipment, yard maintenance crews depositing trimmings in dedicated preserves, preserve buffer zones being landscaped by overeager residences, neighborhood required vegetation (by deed restriction) be removed and replaced with a non-native species, and construction debris blowing into stormwater lakes and littoral areas needing to be removed.

Documentation, notification and follow-up typically resolve the majority of these issues.

***Dock and Shoreline Structures Permitting and Inspection. Initial review/revision review within 1 business day of submittal, final inspection within 1 business day of notification.***

Turrell, Hall & Associates has an Ocean Engineer, an Ocean Engineer (EIT), marine permitting specialists and a former permit reviewer from the FDEP who issued many of the permits which we processed for the last decade. Additionally we have four ex-marine contractors in-house who help with our marine plans, specifications, bid documents, contract review and construction oversight. Typical marine structures we design and permit are basins, dredge plans, docks (single family, multi-family and commercial), bulkheads/seawalls, rip rap revetment, boat lifts, dry storage facilities, jetties and travel lifts.



Our construction specialists visit our jobsites daily for compliance inspections (as seen to the right) and to clarify and answer questions regarding the permit, plans or contracts. They also process pay requests for the client.

***Staffing of Eagle Technical Advisory Committee, maintenance of Bald Eagle data.***

Tim Hall, Senior Ecologist and Vice President of THA, is a well known and respected wildlife ecologist in the State of Florida. Under Tim is a staff of experienced Biologists who assist with Bald Eagle monitoring prior to, during and after construction, and eagle nest permitting required for construction near active nests. We also provide nest survey reports to the wildlife agencies during construction and determine the construction phasing and means that can be utilized during various times of the year in the form of a Bald Eagle Management Plan. This plan is vetted with the wildlife agencies prior to becoming a permit requirement.





TURRELL, HALL & ASSOCIATES, INC.  
RESUMES

**TIM HALL- Vice President**  
**TURRELL, HALL & ASSOCIATES, INC.**

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Tim Hall is a Principal at Turrell, Hall & Associates, Inc., and is also the Senior Ecologist for the firm. Tim works closely with federal, state, and local agencies to obtain approvals for a number of marina and residential development projects. His field skills include plant and animal species identification, habitat assessments, wetland delineations, wildlife surveys, and wetland restoration.

**EDUCATION & LICENSES**

Baccalaureate Studies: Wildlife Ecology  
University of Florida, 1986-1989

Masters Studies: Wildlife Ecology & Wetland Ecosystems  
University of Florida, 1990-1991

Continuing Education

- 2014 Presented Paper at National Conference on Beach Preservation to Florida Shore & Beach Preservation Association (FSBPA), "Clam Bay; A Mangrove Restoration Success Story."
- 2008 University of Florida- FDEP SOP Sampling Training for Groundwater, Surface Water and Wastewater
- 2006 Florida Green Industries Best Management Practices Course
- 2005 Florida Chamber's- Florida Uniform Mitigation Assessment Method Class
- 2005 The Florida Chamber's- Growth Management and Environmental Permitting Short Course
- 2003 Completed the Department of Environmental Protection Wetland Delineation Training Program. Fort Myers, Florida.
- 2002 Completed the FAEP Plant Identification Class with Dr. David Hall

Licenses

- Certified Rescue Diver
- Authorized Gopher Tortoise Agent

**ORGANIZATIONS**

- The Wildlife Society
- Florida Association of Environmental Professionals
- Society of Wetland Scientists
- Florida Native Plant Society

**ECOLOGICAL/TERRESTRIAL BIOLOGY EXPERIENCE**

Floral and Faunal studies established and conducted in Alaska, Guatemala, Dominican Republic, Angola, and Zaire as well as throughout Florida. Studies conducted include species specific population surveys, vegetation density and diversity surveys, vegetation composition surveys, vegetation/ecological restoration projects. Work in Florida has been varied and ongoing for the last seventeen years. Some of the specific projects completed and/or underway include;

- (1998-Present) Overseeing the restoration efforts on a 500+ acre mangrove preserve (Clam Bay). Approximately 50 acres died in 1995 and we designed and implemented a restoration plan geared towards the recovery of the die-off area. To date, the work has been successful in that the area is recovering, wildlife utilization has vastly expanded, and the new mangroves have now survived two hurricanes.
- (2010- Present) Environmental Manager for the Picayune Strand Restoration Project, part of the Everglades Restoration (CERP) Project. Services include weekly conference calls with engineers, consultants and governmental agencies; monthly wildlife education presentations for all new onsite employees; construction oversight; coordination of new nests and any wildlife sightings that are within construction limits or buffer zones; and environmental reporting requirements.
- (2000-Present) Provided all biological services and expert testimony in the permitting of a 1,500+ acre development which was designated as protected species habitat in entirety. Current services also include environmental management of the construction phase.
- (2003) Created a mangrove and grass marsh mitigation peninsula in conjunction with a marina project. The marsh successfully maintained planted species coverage and naturally recruited additional native vegetation and estuarine wildlife.
- Conducting wetland delineation surveys to both State of Florida and U.S. Army Corps of Engineers specifications. Delineated lines have been accepted by agency personnel and have withstood administrative challenges from outside groups.
- Providing expert witness testimony regarding wildlife and wetland issues on various projects.
- (2000) Designed and permitted a Collier County Park (North Naples Regional Park) that allowed visitor access to an approximately 80-acre preserve area with minimal impacts to the preserve.
- Conducting species-specific wildlife surveys and analyses in order to determine utilization and/or potential utilization of properties by target species. Species surveyed for include Florida panther (*Puma concolor coryi*), red-cockaded woodpecker (*Picoides borealis*), crested caracara (*Caracara cheriway audubonii*), Florida scrub jay (*Aphelocoma coerulescens*), eastern indigo snake (*Drymarchon corais couperi*), gopher tortoise (*Gopherus polyphemus*), Florida mouse (*Podomys floridanus*), wood stork (*Mycteria americana*), southern bald eagle (*Haliaeetus leucocephalus*), Florida burrowing owl (*Speotyto cunicularia floridana*), American crocodile (*Crocodylus acutus*), West Indian manatee (*Trichechus manatus*), as well as several others.
- Designing educational interpretational signage related to local plants and animals. Vegetative descriptions and potential wildlife sightings are site specific and tailored to the individual project. These signs are then located in appropriate areas to educate facility users regarding local ecosystems and wildlife.
- Overseeing environmental compliance on permitted projects, including construction oversight, pre-construction wildlife surveys, mitigation coordination, turbidity testing, and water quality sampling.

## **TODD T. TURRELL, P.E., President**

**TURRELL, HALL & ASSOCIATES, INC.**

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Todd Turrell is an Ocean Engineer licensed in the State of Florida, with over thirty years experience in design and permitting for marine and land development and preservation in south Florida, the Florida Keys, the Bahamas and the Caribbean. Todd leads a diverse group of marine and terrestrial scientists and technical staff that efficiently produce the supporting data and plans for every project. The Turrell, Hall & Associates team has completed the permitting and construction management of over 1,000 yacht slips, and has extensive experience in large mega yacht marinas. The firm has researched the world's yacht fleet and stays current on evolving yacht trends. Todd also has a high level of expertise for marina planning and construction management in the Caribbean basin and the Bahamas. This includes engineering structural components of docking systems, be they floating or fixed, bulkhead plans, dredging, utilities and marina amenities. He has extensive experience in the highly specialized area of marina and mega yacht utilities including electrical services, planning, design and proper utilities construction techniques.

### **EDUCATION**

- 1985, M.B.A., Nova University, Fort Lauderdale, Florida
- 1981, B.S., Ocean Engineering, Florida Atlantic University, Boca Raton, Florida.
- Florida Registered Professional Engineer #39659

### **ORGANIZATIONS**

- The Bahamas National Trust
- Bahamas Air Sea Rescue Association (BASRA)
- The Aircraft Owners & Pilots Association (AOPA)

### **REPRESENTATIVE PROJECTS**

- 2013-Present: Design and permitting of a man-made oxbow, filter marsh, and marina along the Caloosahatchee River.
- 2010-Present: Renovation, construction planning and oversight in St. Petersburg of Maximo Marina.
- 2010-2012: Design and permit a national port and entrance channel in southern Bahamas capable of handling the new sized (Post-Panamax) supertankers and cargo ships.
- 2009-Present: Design and construction planning for the renovation of Tampa Yacht Club, a 50-year old marina on Tampa Bay. Construction oversight is to begin in 2015.
- 2008-2010 (and 1980s): Marine and environmental consulting work for the Bahamas Government.
- 2005-Present: Permit, design and oversee construction of the 71-slip mega-yacht marina, Albany, in Nassau, Bahamas. Work included Environmental Impact Assessment (EIA) and Environmental Management Plan (EMP) documents for the Bahamas Government, marina design, construction plans, bidding process, construction oversight, Fuel Spill Contingency Plan, Hurricane Preparedness Plan, Fire Contingency Plan, and Marina Operations Plan.
- 2004: Completion and environmental planning for the Winding Bay Golf course in Abaco Bahamas. Work included Environmental Impact Assessment (EIA) and Environmental Management Plan (EMP) documents for the Bahamas Government.
- 2002: Project Engineer for channel dredging, navigational aids and new mega yacht berths at the Lyford Cay Yacht Club, New Providence Island (Nassau), Bahamas.
- 1990: Permitting, construction and mitigation design for the 120 slip Marco Island Yacht Club.
- 1989: Expert witness for Florida Department of Transportation involving jurisdictional analysis of 20,000 acres for the expansion of Alligator Alley to I-75 and related acquisitions for the Big Cypress National Preserve.

# MARIELLE KITCHENER

## TURRELL, HALL & ASSOCIATES, INC.

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Marielle has been Operations Manager of Turrell, Hall & Associates and a Biologist with the firm for over 17 years, providing environmental monitoring, permit compliance oversight, and project management in South Florida and the Bahamas.

### **BIOLOGICAL AND COMPLIANCE SERVICES:**

- Performs water quality and sediment sampling, analysis, and reporting.
- Performs turbidity testing and reporting for both inland and coastal marine projects.
- Monitors preserves and mitigation lands for plant health and species appropriateness, wildlife utilization, and hydrological analyses that contend with water use permitting and wetland health reporting.
- Creates habitat management and restoration/ planting plans for beach dune, upland, wetland, marsh, and mangrove habitats. Also bids out and oversees the planting activities.
- Provides Sovereign Submerged Lands Lease management for marine clientele and oversees compliance with those leases. Also resolves lease violations for new clients.
- Creates for marinas: Hurricane Preparedness Plans, Spill Prevention Control and Countermeasure Plans (SPCCPs), and Fire Prevention and Contingency Plans.
- Specializes in post-permit compliance helping to guide clients through the time-sensitive special conditions which must be met after permit issuance and the drafting of various plans required for those conditions.
- Performs wetland assessments and jurisdictional determinations on single-family and large-scale development projects.
- Conducts wildlife surveys on single-family and large-scale development projects.
- Performs submerged resource surveys and studies.
- Performs water quality sampling for Multi-Sector Generic Permits and prepares Stormwater Pollution Prevention Plans (SWPPPs).
- Prepares Mitigation Management Plans, Preserve Management Plans for development turnover, various wildlife Management Plans, and Environmental Resource Permit Supplements.

### **EDUCATION & TRAINING:**

- 1997- B.S., Environmental Science, Alabama A& M University- Normal, Alabama.
- 1998- Completed the U.S. Army Corps of Engineers Wetland Delineation Certification Training Program. Tampa, Florida.
- 2002- FAEP Plant Identification Class with Dr. David Hall.
- 2003- Department of Environmental Protection Wetland Delineation Training Program. Fort Myers, Florida.
- 2007- Certified by Ostego Bay Foundation as an Oil Spill First Responder Hazardous Materials Technician.
- 2000- PADI Certified Open Water Diver

### **ASSOCIATIONS**

- Big Cypress Basin Board Member (July 2013- present)
- Lake Trafford Management Team (2013- present)

## **JEFFREY ROGERS**

### **TURRELL, HALL & ASSOCIATES, INC.**

**3584 Exchange Avenue, Naples, Florida 34104 • Office : (239) 643-0166 • Jeff@turrell-associates.com**

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Jeff Rogers graduated with a Bachelor of Science Degree in Environmental Science from Rollins College in 2005. As a Staff Biologist with Turrell, Hall & Associates, Inc. Jeff has been involved with single-family dock and marina permitting, dredge design and permitting, threatened and endangered species surveys, submerged resource surveys, vegetative mapping and classification, jurisdictional wetland determinations, preserve management and monitoring, water quality sampling and turbidity testing, environmental resource permitting and coordinating with various agency staff on company projects.

#### **REPRESENTATIVE PROJECTS**

##### Naples Baker Park Project, Naples, FL (2014- 2015)

Jeff was responsible for collecting the initial data for the environmental due diligence phase of the Naples Baker Park Project. Services included the submerged resource survey, threatened and endangered species survey, and coordination with state agents on requirements for marine facility permitting and bridge permitting. Jeff helped prepare documents which the City used for budget and construction planning purposes.

##### Clam Bay Restoration and Monitoring Project, Naples, FL (1999- Present)

Turrell, Hall & Associates have been managing the restoration of a mangrove die-off in the Clam Bay Estuary since 1999 for Pelican Bay. Restoration efforts include annually measuring the progress of mangrove growth in die-off zones, searching for new areas of stress and monitoring of the seagrass beds in the system. Jeff has been an integral part of those monitoring efforts since 2006 and has helped to prepare the annual monitoring report and presentation to the Pelican Bay Board each year since.

##### Hideaway Beach Submerged Resource Survey for Collier County, Marco Island, FL (2010- 2013)

In order to comply with coastal permit monitoring requirements, semi-annual submerged resource surveys are conducted by Turrell staff. Jeff has led each monitoring event and prepared the draft report for submittal by the Engineers of Record.

##### Port Royal Water Depth and Dredge Scenario Analysis, City of Naples, FL (2011)

In 2011 Jeff the lead the THA team which collected water depths throughout the Port Royal canal system and provided cost estimates and basic dredge plans for the City to analyze the amount of spoil to be removed in each canal, the cost associated, logistical issues and permitting scenarios with regards to dredging the existing canals.

#### **EDUCATION**

- 2004 Sustainable Development Course – Galapagos Islands, Ecuador
- 2005 B.A.-Environmental Science from Rollins College- Orlando, Florida
- 2006 Course to establish U.S. Merchant Marine Officer 100 ton License
- 2006 Florida Gulf Coast Plant Identification Course with Dr. Hall of University of Florida
- 2006 Rookery Bay Workshop for Managing Small Docks and Piers
- 2007 Southwest Florida Association of Environmental Professionals Wetland Delineation Training Course
- 2007 Florida Department of Environmental Protection Environmental Resource Permit Course

#### **LICENSES**

- 100 Ton Merchant Mariner Captain's License
- Certified PADI and Rescue Diver

## **JOSHUA W. MAXWELL**

### **TURRELL, HALL & ASSOCIATES, INC.**

**3584 Exchange Avenue, Naples, Florida 34104 • Office (239) 643-0166 • Josh@Turrell-Associates.com**

Joshua W. Maxwell is the Senior Staff Engineer at Turrell, Hall & Associates, Inc. As the Senior Staff Engineer for Turrell, Hall & Associates, Joshua works closely with State, Federal, and local government agencies to obtain approvals for our various marine-related projects. His responsibilities with the firm are submerged and benthic resource analyses, waterfront development and design assistance, environmental resource permitting, marine construction plan preparation, marine construction bid document preparation and bidding, marine construction management oversight, and performing flushing studies and hydrographic analysis for proposed marinas.

#### **EDUCATION:**

2008- B.S. Ocean Engineering  
Florida Atlantic University

#### **CERTIFICATIONS:**

- Certified Open Water & Nitrox Diver
- Engineering Intern # 1100012577

#### **REPRESENTATIVE PROJECTS:**

##### La Peninsula- Isles of Capri, Naples, Florida (2014- Present)

La Peninsula is a community of high-rise condominiums located on the western-most tip of Isles of Capri. The peninsula is a relatively narrow strip of land and is subject to foul Gulf weather and waves. The existing seawall which supports the substrate under the community has been determined to be in poor condition. Josh is working with a structural engineer to prepare and permit a plan to entomb the existing seawall so the new system will serve as a breakwater for severe storms and provide substrate support needed.

##### Collier County Artificial Reef Project- Collier County, Florida (2012- 2014)

Josh assisted the City of Naples, the City of Marco Island, and Collier County with research on construction methods, materials, insurance requirements, construction costs, construction bid requirements, artificial reef expertise coordination, and application preparation to permit the creation of a series of artificial reefs offshore in Collier County for recreational use.

##### Maximo Marina- St. Petersburg, Florida (2010-Present)

Josh permitted the renovation of an existing 326-slip (281 covered & 45 uncovered) marina and replacement of 3,100 linear feet of seawall, including maintenance dredging activities. Josh has overseen the construction specifications, bid preparation, bidding and contract selection, and construction oversight of the first phase. Services for future phases are currently underway.

##### Tampa Yacht and Country Club – Tampa, Florida (2009-Present)

Josh permitted the renovation of a 50 year old marina on Tampa Bay with the Tampa Port Authority, and the State and the Federal governments. The existing 80 slip (covered and uncovered) marina has been redesigned to include 105 wet slips (covered and uncovered), including re-enforcing the marina's breakwater to ensure it remains a safe harbor during storm events. The project is currently out to bid and construction is planned to begin in February 2015.

#### **ORGANIZATIONS:**

- Marine Industry Association of Collier County
- National Society of Professional Engineers
- Florida Engineering Society
- Society of Naval Architects and Marine Engineers
- Boy Scouts of America (Eagle Scout and Assistant Scoutmaster)

## **ARIELLE POULOS**

### **TURRELL, HALL & ASSOCIATES, INC.**

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Arielle Poulos graduated from Florida Gulf Coast University in 2002 with a double major in Biology and Environmental Studies and has also been pursuing a graduate degree in Marine Science from University of Florida. Arielle was employed with the Department of Environmental Protection from 2005 to 2014 as an Environmental Specialist, coming to work for Turrell, Hall & Associates in April 2014 as Staff Biologist and Project Manager.

Arielle has extensive marine and terrestrial biological experience from both the FDEP and research projects conducted outside the agency. Currently her role at Turrell, Hall & Associates is performing submerged resource surveys, marine permitting, wetland delineations, habitat management plan preparation, and site assessments.

#### **EXPERIENCE**

- 2015- Is working with Glades County and FWC to write a Manatee Protection Plan.
- 2015- Is providing sea turtle nest monitoring during the renovations to the Naples Pier.
- 2014- Assisted with finalization of the 10-Year Clam Bay Management Plan and is also involved in the permitting various aspects of the plan.
- 2014- Is providing wetland determination and wildlife specific survey services for several large-scale development projects on forested parcels, as well as environmental permitting services.
- 2014- Is providing dock permitting services and CCCL/ CCCL permitting services for barrier island or beach development projects.
- 2014- Conducted a Marine Resource Presence Survey from the north end of Bonita Beach to the north side of Big Carlos Pass in Estero prior to several miles of dredge pipeline being laid for renourishment of Lover's Key and north Bonita Beach.
- Sea-turtle nest location, excavation and monitoring (Rookery Bay Program)
- University of Florida and Charlotte County Sea Grant Extension resource monitoring of bay scallops and bay scallop health in The Lemmon Bay, Gasparilla Sound and Pine Island Sound Great bay Scallop Search.
- Charlotte Harbor National Estuary Program 2010 Shoreline Survey- conducted surveys of the shoreline in Charlotte and Lee Counties to determine percentage of hardened shoreline, mangroves and exotics species for a determination of the overall health of Charlotte Harbor and its aquatic preserves.
- Florida Department of Environmental Protection- Environmental Specialist 2005-2014:
  - Biological Assessments
  - Wetland Delineations
  - Wetland Permitting
  - Dock/Marina Permitting
  - Public Relations
  - Media Relations

#### **EDUCATION**

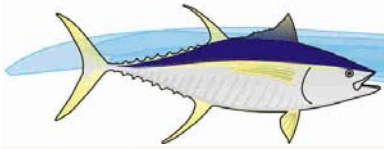
- 2002 B.A. Biology - Florida Gulf Coast University
- 2002 B.A. Environmental Studies- Florida Gulf Coast University (FGCU)
- Pursing M.S. Marine Science- University of Florida
- Graduate Level Courses in Botany and Physical Oceanography- FGCU
- Graduate Level Course in Marine Mammal Management- Nova Southeastern University
- Wetland Delineation & Soil Science

#### **LICENSES/ CERTIFICATIONS**

- Certified PADI Open Water Diver
- FDEP Snorkeling Certification
- Certified Stormwater Inspector



# SAMPLE WORK PROJECT SHEETS



# Turrell, Hall & Associates, Inc.

marine & environmental consulting



*Project Site*



*Florida Panthers photographed on the site.*

## Picayune Strand Restoration (CERP) Project • Environmental Management

This CERP project consists of spoil and road removal, canal plugging, and construction of pump stations, and associated features which will help restore habitats to pre-development conditions.

Since 2010 Turrell, Hall & Associates (THA) has been the environmental managers for the Merritt, Faka-Union and Miller Pump Station phases that define this CERP project. We have worked with the U. S. Fish & Wildlife Service, the Army Corps of Engineers, the South Florida Water Management District, the Department of Environmental Protection and the contractors to develop an Environmental Protection Plan for each of the pump station phases, and coordinated with the contractor regularly to ensure all aspects of work remained compliant with environmental permitting and the biological opinion. Services have included: wildlife monitoring, nuisance wildlife coordination, reporting of wildlife fatalities, compliance inspections, weekly conference calls, annual reporting, and an educational program.

Because of the number of listed species in Picayune, educational programs (pamphlets, posters, a video and presentations) are presented to all visitors and personnel working within the project site prior to site access.



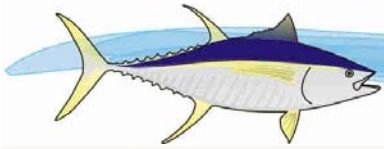
*Merritt Canal Pump Station under construction June 2012 (above).  
Faka-Union Pump Station under construction June 2012 (below).*



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## ESPLANADE CREATED WADING BIRD HABITAT

The Esplanade project is a 1,543-acre development, encompassing 964 acres of wetland and 122 acres worth of upland preserve. Included in the preserved area is a 14.5-acre wading bird habitat created from uplands and fallow agricultural land. This area was designed to provide various levels of inundation throughout the year as the water table rises and falls onsite. Even at the end of the dry season some of the deeper pools remain for bird foraging.

To-date winter bird monitoring has documented a very diverse range of species, including a large number of woodstorks from Corkscrew Swamp.



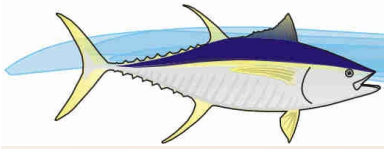
*Above: A flock of white pelicans using the marsh*

### WADING BIRD HABITAT

*Before:  
Woods and fallow agricultural land*



*After:  
Created Wading Bird Habitat*



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*Above: Die off area in 1999.*

*Below: Same area in 2008.*



## Clam Bay • Environmental Consulting • Naples, Florida

Turrell, Hall & Associates, Inc. has been the lead consultant for restoration and maintenance activities in the Clam Bay ecosystem since 1998. The system consists of a series of shallow estuarine lagoons with approximately 500 acres of mangrove forested areas, open shallow water areas, sea grass beds, and dune/beach habitat.

In 1995 and 1996, approximately 50 acres of mangroves died due to a combination of issues including poor water circulation (flushing) and high rainfall. This die-off resulted in a community wide concern over the health of the system which prompted the restoration efforts undertaken.



*Above: Flushing cuts in 2002.*

Ground truthing and aerial photography were used to accurately and efficiently map and catalogue vegetative communities in Clam Bay. Restoration efforts focused on improving the flushing capabilities within the system and maintaining a self-sustaining cross section through the Pass itself. A combination of modeling, field investigations, and field verification of actions implemented led to a successful restoration project and more than 50 acres of recovering mangrove community.

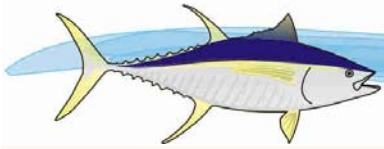


*Above: Clam Bay in 2010.*

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# Turrell, Hall & Associates, Inc.

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Turrell, Hall & Associates (THA) managed a public access project along the Imperial River for the City of Bonita Springs known as Bonita Trail Phase I from 2011-2013.

THA led a team to design and permit parking, boardwalks and a kayak launch along the Imperial River. Post-permitting, construction drawings and bid documents were prepared for the City. Our team also provided the construction oversight and final engineering certifications for this public access project.



Environmental Permitting, Design & Engineering, Bidding & Construction Oversight  
Bonita Trail: Phase I, Bonita Springs, FL



**BEFORE**

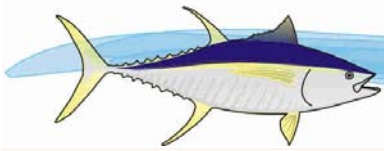


**AFTER**

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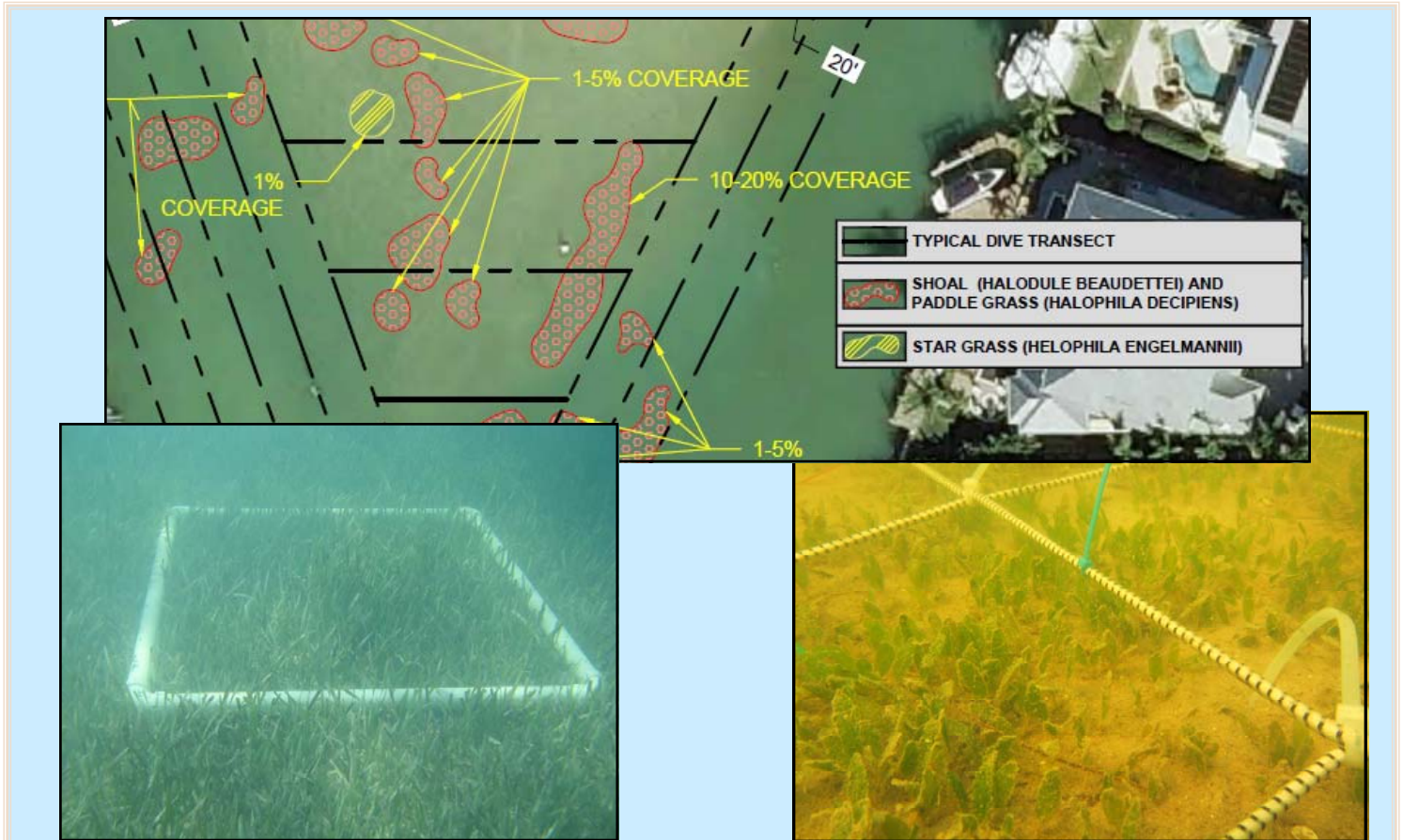
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## SEAGRASSES

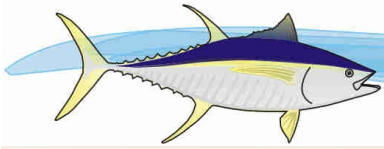
Turrell, Hall & Associates (THA) performs several dozen submerged resource surveys a year on various types of marine projects, with approximately 30% of the surveys yielding seagrass beds. In the past few years we have mapped seagrass beds within Doctor's Pass, in coastal waters off Hideaway Beach (Marco Island), Riviera Beach City Marina (Palm Beach), Port Mayaguana (Bahamas), and Clam Bay to name a few. In certain cases delineation of the seagrass beds with percent species coverage was all that was required for avoidance and minimization planning purposes, but in other cases the seagrass beds were examined to help determine what affects dredging or sand placement and water quality were having on them. In the case of Clam Bay, when the benthic survey has been completed each summer, we have also examined water quality trends throughout the bay system for a correlation between seagrass findings and the affects renewed flushing might have had on the system after the pass had been dredged.

THA have several staff members who regularly perform submerged resource surveys for all of our marine projects. In addition to annual survey experience, Arielle Poulos, while with the Department of Environmental Protection, helped to establish a UMAM criteria baseline for seagrass habitats. Creating the baseline entailed sampling seagrass beds in coordination with the TMDL program and water quality sampling locations within Lemon Bay, Charlotte Harbor, the Peace River, Pine Island Sound, Matlacha Pass, the Caloosahatchee River, San Carlos Bay, Estero Bay and Rookery Bay. Vertebrates and macro-invertebrates were sampled and recorded at each site in an effort to determine the effect, if any on species utilization by water quality.

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## Albany Marina • Design and Construction • New Providence, The Bahamas

The Albany Marina is part of a development being constructed on the southwest coast of New Providence Island. The finished project will have a village with commercial and residential structures, an 18 hole Tiger Woods – Ernie Els golf course, a marina, beach amenities, and more.

The marina will contain 71 wet slips from 50 ft. to 240 ft. in length. Dry storage for smaller boats will be provided. The entrance to the marina is protected by jetties and a mile long channel which connects the marina to deep water.



*Above: Marina basin in December 2010.*

Turrell, Hall & Associates, Inc. provided the engineering, design, and construction management of the 15 acre marina basin, docks, and complete utility systems.

Additional services also included processing the E.I.A. (Environment Impact Assessment) and E.M.P. (Environmental Management Plan) for the entire project.



*Above: Marina Master Plan by Turrell, Hall & Associates, Inc.*

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# MARINE SERVICES

The engineers & marine construction professionals at Turrell, Hall & Associates have been providing marine services to waterfront condominiums and homeowners in the Naples area for over 30 years.



*Concrete Docks & Boat Lifts*



*Seawalls & Shorelines*

Our firm offers design, permitting and construction management for all waterfront projects. From single family docks and seawalls to large scale marina facilities, our team of experts can provide a wide range of services, no matter the size of the project.

The marine construction professionals of Turrell, Hall & Associates help bridge the gap between property owners, government permit agencies and the marine contractors who do the work.

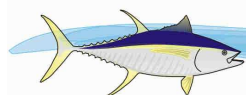


*Naples Bay Resort - Design & Permitting  
Concrete & Wood Docks, Dredging, Bulkheads & Rip Rap*

Our extensive hands-on experience allows us to offer cost effective solutions to problems which often arise during the course of marine construction. We have a proven and successful track record with our clients and a stellar reputation with the marine contractors we routinely work with. Our aim is to simplify the construction process and protect your interests.

## Services Include:

- Dock Design & Permitting
- Waterfront Engineering & Consulting
- Seawall Assessment & Recommendations
- Construction Bidding & Oversight
- Site Management & Reporting



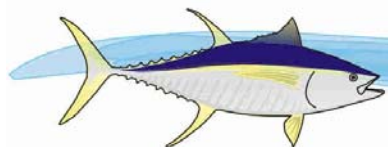
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*Above: Gopher Tortoise burrow located at project site.*

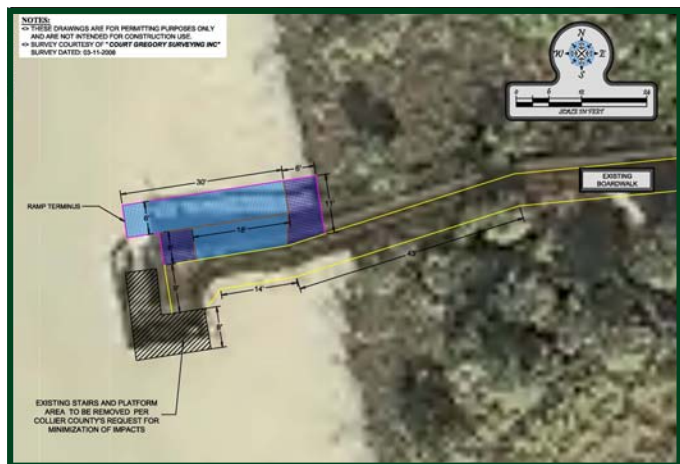
*Below: Gopher tortoise burrow protected by silt fence during dune walkover pile installation.*



## The Carlyse • CCCL & CCSL- Design & Permitting • Naples, Florida

In 2008, Turrell, Hall & Associates was hired to handle local and state environmental permitting and to oversee the construction of improvements to the dune walkover / beach access at The Carlyse, located in Bay Colony of Naples, FL.

Other services required for the project included a gopher tortoise survey. A juvenile gopher tortoise burrow was identified within the 25 ft. allowable radius of the proposed construction and required permitting and coordination with the Florida Fish and Wildlife Conservation Commission (FWC), as well as, habitat and species management plans.



*Above: Permitted ADA boardwalk access ramp.*

More specifically, an ADA access ramp was permitted and constructed to replacing the existing stair access of the beach access. Permitting required CCSL and CCCL authorizations from Collier County and the DEP Beaches and Coastal Division, respectively.

*Right: A view out to the beach from the boardwalk at The Carlyse.*



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