Board of
Commissioners Meeting
January 18, 2014

PRELIMINARY AGENDA

FLORIDA INLAND NAVIGATION DISTRICT
Board of Commissioners Meeting

9:00 a.m., Saturday, January 18, 2014

Hilton St. Augustine Historic Bayfront Hotel
32 Avenida Menendez
St. Augustine (St. Johns County), FL 32084-3644

Item 1. **Call to Order.**

Chair Kavanagh will call the meeting to order.

Item 2. **Pledge of Allegiance.**

Treasurer Blow will lead the Pledge of Allegiance to the United States of America.

Item 3. **Roll Call.**

Secretary Cuozzo will call the roll.

Item 4. **Additions or Deletions.**

Any additions or deletions to the meeting agenda will be announced.

RECOMMEND: Approval of a final agenda.

Item 5. **Public Comments.**

The public is invited to provide comments on issues that are NOT on today's agenda. All comments regarding a specific agenda item will be considered following Board discussion of that agenda item. *Please note: Individuals who have comments concerning a specific agenda item should make an effort to fill out a speaker card or communicate with staff prior to that agenda item.*

Item 6. **Board Meeting Minutes.**

The minutes of the following meetings are presented for approval.

- December 13, 2013 – Finance & Budget Comm. Mtg. (Please see back up pages 5 - 7).
- December 13, 2013 – Board Meeting (Please see back up pages 8 - 26).

RECOMMEND: Approval of the minutes as presented.

Item 7. **Staff Report on St. Johns County Area Projects.**

Staff will present a report on the District's St. Johns County area projects.

(Please see back up pages 27 - 44)

Item 8. **Purchase of Freshwater Wetland Mitigation Credits in Regional Watershed Mitigation Basin #6, St. Johns and Duval Counties (DMMA SJ-14).**

To remediate the impacts for the material release which occurred at Dredge Material Management Area (DMMA) SJ-14 in 2006, the District needs to purchase approximately 9.3 Uniform Mitigation Assessment Methodology (UMAM) freshwater wetland mitigation credits. These credits must be purchased from Regional Watershed Mitigation Basin #6 in order to qualify for the Florida Department of Environmental Protection's (FDEP) settlement order. Staff has requested bids for this item and the qualified responders bids will be distributed at the Board meeting. In addition, the bid package was structured to allow the possible purchase of up to five additional credits to be utilized as a potential option for the District's long-term monitoring of the required on-site wetland restoration area.

(Please see back up pages 45 - 85)

RECOMMEND: Approval of the low bidder for the purchase of up to 14 UMAM freshwater wetland credits in Regional Watershed Mitigation Basin #6 for remediation of SJ-14 impacts.

Item 9. **Scope of Work and Cost Proposal for Permitting and Final Design of Dredge Material Management Area (DMMA) SJ-20A, St. Johns County.**

In October of 2013, staff met with St. Johns County to discuss the potential temporary use of DMMA SJ-20A by the County for the neighboring Treasure Beach dredging project. Through those negotiations, staff requested Taylor Engineering conduct a preliminary site evaluation. The final recommendations by Taylor Engineering included the construction of a permanent facility prior to any site use, with additional groundwater and geotechnical investigations necessary due to the site's location approximately 1.4 miles from the Intracoastal Waterway. This site is one of the District's primary permanent DMMA facilities. Survey 2004 revealed approximately 92,000 cy^3 of material in Reach IV, which is the dredging area served by this site. The number is expected to increase with Survey 2013, while the current site capacity is only 55,000 cy^3. The proposal will include an evaluation of an increase in the site's capacity (i.e. reduction in buffer width, increase in containment dike height, etc.). This proposal is a not to exceed proposal.

(Please see back up pages 86 – 122)

RECOMMEND: Approval of a scope of services and cost proposal in the amount of $456,578.48 from Taylor Engineering for the permitting and final design of DMMA SJ-20A, St. Johns County.

Item 10. **Dredge Material Management Area (DMMA) DU-8 Engineering Design for an Underground Pipeline Sleeve in the Pipeline Easement.**

Since its original purchase in 1988, the area surrounding permanent DMMA Site DU-8 in Duval County has experienced rapid development. Condominiums have been constructed along the District's pipeline easement at this site. During a dredging event in 2006, a pipeline ruptured and affected the adjacent condominiums. As a result, subsequent pipeline access to this site has required a pipeline sleeve or pipeline burial to avoid a similar occurrence. During the recent use of the site, staff received several complaints and concerns from property owners and the property manager during the pipeline staging and burial. Staff requested that our engineering firm investigate the possibility of a permanent pipeline sleeve at this location. The positive result of this initial investigation has lead to the request for a final design. The plan is to reduce construction costs and disruption by installing this pipeline sleeve when the current on-site contractor removes the temporary buried dredge pipeline.

(Please see back up pages 123 – 130)

RECOMMEND: Approval of a scope of services and cost proposal in the amount of $42,441.08 from Taylor Engineering for the final design of an underground pipeline sleeve at DMMA DU-8, Duval County.

Item 11. **Site Mowing Project Bids, Flagler (FL-3, FL-8, FL-12) and Volusia (V-22 and V-29) Counties Dredge Material Management Area (DMMA).**

Staff has requested bids from qualified applicants for the quarterly mowing of three DMMA's (FL-3, FL-8, and FL-12) in Flagler County and two DMMA's (V-22 and V-29) in Volusia County. These sites are currently cleared and maintained (or constructed) and the existing mowing contracts have expired. The project was bid and 3 bids were received. The low bidder is a new contractor for FIND with compatible experience and solid references. Staff recommends the lower bidder and they appear qualified to perform the project. The contract will continue for a three-year period with a total net cost of approximately $137,004.00 for four mowing events per site over three years.

(Please see back up pages 131 – 153)

RECOMMEND Approval of the low qualified bid from Ashlie Environmental in the amount of $11,417.00 per event for quarterly mowing of five DMMA's in Flagler & Volusia counties.

Item 12. **Volusia County Monitoring Well Sampling, Dredge Material Management Areas (DMMA) V-22, V-26 and V-29.**

Staff has requested bids from qualified applicants for the quarterly sampling and analysis of monitoring of three DMMA's (V-22, V-26 and V-29) in Volusia County. These sites currently have monitoring wells installed and the existing sampling contracts have expired. The project was bid and 5 bids were received. The District has successfully worked with the apparent low-bid contractor (Bonn Environmental Services & Technologies, Inc.) in the past and they appear qualified to perform the project. The contract will continue for a three-year period for a total contract amount of $21,300.00.

(Please see back up pages 154 – 170)

RECOMMEND Approval of the low qualified bid (Bonn Environmental) for a 3-year quarterly sampling of 17 monitoring wells for three DMMA's (V-22, V-26 & V-29) in Volusia County.

Item 13. **Brevard County Monitoring Well Sampling, Dredge Material Management Areas (DMMA) BV-2C, BV-4B, BV-11 and BV-52.**

Staff has requested bids from qualified applicants for the quarterly sampling and analysis of monitoring wells on four DMMA's (BV-2C, BV-4B, BV-11 and BV-52) in Brevard County. These sites currently have monitoring wells installed and the existing sampling contracts have expired. The project bids were scheduled to be received after publication of the January Board Agenda and the bids will be distributed at the meeting. The contract will continue for a three-year period.

(Please see back up pages 171 – 180)

RECOMMEND Approval of the low qualified bid for quarterly sampling of monitoring wells for four DMMA's in Brevard County.

Item 14. **Palm Beach County Monitoring Well Sampling, Dredge Material Management Areas (DMMA) MSA-617C, MSA-640 and MSA-641.**

Staff has requested bids from qualified applicants for the quarterly sampling and analysis of monitoring wells on three DMMA's (MSA-617C, MSA-640 and MSA-641) in Palm Beach County. These sites currently have monitoring wells installed and the existing sampling contracts have expired. The project bids were scheduled to be received after publication of the January Board Agenda and the bids will be distributed at the meeting. The contract will continue for a three-year period.

(Please see back up pages 181 - 187)

RECOMMEND Approval of the low qualified bid for quarterly sampling of monitoring wells for three DMMA's in Palm Beach County.

Item 15. **Finance and Budget Committee Report.**

The District's Finance and Budget Committee met prior to the Board meeting and will provide their recommendations concerning items on their agenda.

(Please see Finance and Budget Committee Agenda Package)

RECOMMEND: Approval of the recommendations of the District's Finance and Budget Committee.

Item 16. **Washington Report.**

The District's Washington DC government relations firm has submitted a status report on their activities on the District's federal issues.

(Please see back up pages 188 – 189)

Item 17. **Additional Staff Comments and Additional Agenda Items.**

Item 18. **Additional Commissioners Comments.**

Item 19. **Adjournment.**

MINUTES OF THE

FLORIDA INLAND NAVIGATION DISTRICT

Finance and Budget Committee Meeting

8:30 a.m., Friday, December 13, 2013

Hampton Inn New Smyrna Beach

214 Flagler Avenue

New Smyrna Beach, Volusia County, FL 32169

ITEM 1. Call to Order.

Committee Chair Blow called the meeting to order at 8:32 a.m.

ITEM 2. Roll Call.

Assistant Executive Director Janet Zimmerman called the roll and Chair Blow, Commissioner Bowman, Commissioner McCabe, and Commissioner Sansom were present. Ms. Zimmerman stated that a quorum was present.

ITEM 3. Additions or Deletions.

Chair Blow asked if there were any additions or deletions to the meeting agenda.

Mr. Crosley stated that there are no additions or deletions to the agenda.

ITEM 4. Public Comments.

Chair Blow asked if there were any public comments on issues that are not on today's agenda. There were none.

ITEM 5. Financial Statements for October of 2013.

Mr. Crosley presented the District's financial statements for October of 2013 and stated that this is the first month of the District's new fiscal year.

Mr. Crosley stated that the District's tax revenue is directly deposited into Sun Trust Savings. He noted that staff does not have a banking relationship with Sun Trust nor do they provide the District a decent interest rate on our funds. He stated that after the majority of tax revenue has been received, staff will change this account to a banking facility that the District has a working relationship.

Commissioner Bowman made a motion to approve a recommendation to the full Board of the financial statements for October of 2013. The motion was seconded by Commissioner McCabe. Chair Blow asked for any additional discussion. Hearing none, a vote was taken and the motion passed.

ITEM 6. October 2013 Expenditure and Project Status Reports.

Mr. Crosley presented the Expenditure and Project Status Report for October 2013 and asked for questions. There were none.

Mr. Crosley noted that staff has developed a new Budget Expense Report that should make these reports easier to review. He noted that additional changes to the Waterway Studies report will populate contractual obligations that include Channel Surveys, Budget, and Contracts.

ITEM 7. Delegation of Authority Report.

Mr. Crosley presented the Executive Director's Delegation of Authority actions and stated that three actions were taken from November 6, 2013 through December 3, 2013 and are presented for Committee review.

Mr. Crosley noted that he executed a post-project hydrographic survey with Sea Diversified, Inc. in the amount of $3,850.00 for a dredging project survey of Cut P-31 for the Parker Bridge in Palm Beach.

ITEM 8. **Additional Agenda Items or Staff Comments.**

Chair Blow asked if there were any additional agenda items or staff comments. There were none.

ITEM 9. **Additional Commissioners Comments.**

Chair Blow asked if there were any additional Commissioner comments. There were none.

ITEM 10. **Adjournment.**

Chair Blow stated that hearing no further business the meeting was adjourned at 9:00 a.m.

MINUTES OF THE

FLORIDA INLAND NAVIGATION DISTRICT

Board of Commissioners Meeting

9:00 a.m., Friday, December 13, 2013

Hampton Inn New Smyrna Beach

214 Flagler Avenue

New Smyrna Beach, Volusia County, Florida 32169

ITEM 1. Call to Order.

Chair Kavanagh called the meeting to order at 9:01 a.m.

ITEM 2. Pledge of Allegiance.

Commissioner McCabe led the pledge of allegiance to the flag of the United States of America.

ITEM 3. Roll Call.

Secretary Cuozzo called the roll and Chair Kavanagh, Treasurer Blow, Commissioners Bowman, Dritenbas, Isiminger, McCabe, Netts, and Sansom were present. Secretary Cuozzo stated that a quorum was present.

ITEM 4. Consent Agenda.

Chair Kavanagh asked if there were any comments or questions regarding the Consent Agenda.

Treasurer Blow made a motion to approve the Consent Agenda as presented. The motion was seconded by Commissioner Dritenbas. Chair Kavanagh asked for discussion. Hearing none, a vote was taken and the motion passed.

ITEM 5. Additions or Deletions.

Chair Kavanagh asked if there were any additions or deletions to the meeting agenda.

Mr. Crosley stated that Mr. Jim Davenport from Alcalde & Fay is here this morning to make a presentation and he would like to move Item 14, Washington Report to Item 7A, Washington Report.

Commissioner Sansom made a motion to approve the final agenda as amended. The motion was seconded by Commissioner McCabe. Chair Kavanagh asked for discussion. Hearing none, a vote was taken and the motion passed.

ITEM 6. Public Comments.

Chair Kavanagh asked if there were any public comments on issues that are not on today's agenda.

Mr. Hap Cameron, with Cline Construction, a mechanical dredging company stated that the Okeechobee Waterway and stormwater run-off have contributed to the muck problems in the Indian River Lagoon (IRL), located in Brevard, Indian River, and Martin Counties. He stated that this environmental problem is the wake-up call to correct the associated environmental issues to the IRL.

Mr. Cameron stated that he would like the District to work with the State of Florida and the Florida Department of Environmental Protection (FDEP) to change their view of dredging and stop the environmental roadblocks to clean-up the IRL.

Commissioner McCabe thanked Mr. Cameron for attending the meeting and providing comments on this issue.

Treasurer Blow stated that the biggest challenge in handling muck is where to dispose of it. He noted that the District's facilities were not designed to permanently hold muck. He stated that we will be discussing this issue today and asked Mr. Cameron to stay for the meeting to provide input on how to handle this material.

Commissioner Netts stated that the muck issue is an opportunity to revise the thinking about dredging and what the District does.

Commissioner Sansom stated that Dr. John Trefry, Florida Institute of Technology, Professor of Marine and Environmental Systems, made a presentation to the Senate Environmental Preservation and Conservation Committee, which held a meeting this week on sediment accumulation and removal in the IRL.

Commissioner Sansom stated that there is awareness in the Florida Legislature regarding muck in the IRL and other waterways. He stated that he feels that there are opportunities to show how current dredging practices can be environmentally helpful. He stated that the Florida Legislature will put together a muck dredging program for the large waterways such as the IRL, but, for the private canals, local government will need to handle those projects.

ITEM 7. Board Meeting Minutes.

Chair Kavanagh asked if there were any comments or questions regarding the Board Meeting Minutes. There were none.

Commissioner Sansom made a motion to approve the minutes as presented. The motion was seconded by Commissioner Dritenbas. Chair Kavanagh asked if there was any further discussion. Hearing none, a vote was taken and the motion passed.

ITEM 7A. Washington Report.

Mr. Jim Davenport, of Alcalde & Fay, stated that he appreciates this opportunity to address the Board. He stated that Alcalde & Fay has been Washington's independent advocacy resource for over forty years with approximately 100 clients nationwide. He stated that historically, their specialty has been public bodies, cities, counties, school districts, universities, ports, and airports. He stated that a measure of their success lies in the fact that many of their clients have been with us for ten years or longer.

Mr. Davenport noted that Alcalde & Fay is comprised of former Executive Branch officials, Members of Congress and Congressional staff, allowing Alcalde & Fay to provide efficient, effective Washington representation and input to federal decision-makers.

Mr. Davenport stated that Alcalde & Fay's bi-partisan reputation, combined with their high standards of excellence, command attention from senior level decision-makers in the Administration, the Halls of Congress, and offices of every department and agency throughout the Federal Government. He stated that the company will provide their very best advice and counsel, work hard to exceed expectations and will serve as vigorous advocates before State officials on behalf of FIND.

Mr. Davenport stated that to date, Alcalde & Fay has successfully collected $29 million, for FIND, for dredging projects. He stated that in a previous WRDA Bill, they were able to increase the Federal funding CAP for the Peanut Island project and the District received a Corps refund of $3.5 million.

Mr. Davenport stated that currently Alcalde & Fay is working on an assessment of the waterway, pending approval by the House and Senate (Water Resources and Development Act) WRDA Committee.

Mr. Davenport stated that each year, at the beginning of the year, Alcalde & Fay goes to the District's Congressional members to submit a Programmatic Appropriations Request. He stated that the members ask the Energy and Water Committee to support funding for a sub account called Inland Waterways. He stated that once this request is in the Bill, Alcalde & Fay goes to the U. S. Army Corps and ask the Corps to take that funding and apply it to the District's projects. He stated that the current House Bill has approximately $35 million for authorized purposes and he is hopeful that FIND will receive $4 million of that funding.

Mr. Crosley stated that the District has our five-year plan on this agenda and he will work with Mr. Davenport and Ms. Trulock to prepare the District's initial work plan that staff will hand carry to our representatives in Washington D. C. in February or March 2014.

Dr. Taylor asked if the maintenance for authorized deep-draft projects is included in this authorized funding. Mr. Davenport answered no and stated that this funding is for low use waterways.

Dr. Taylor asked if there has been any progress made in Congress on redefining the earmark issue. Mr. Davenport stated that there has been some talk over the past year and there continues to be talk about the issue. He stated that the Senate has put in project modifications in the WRDA Bill that look a lot like earmarks. He stated that he does not

see an earmark definition coming this year and it will not happen before the election. He stated that he is hopeful that after the next election, things will change.

Mr. Davenport noted that last year the House WRDA Bill, Section 218, Assessment of Operations and Maintenance of the Atlantic Intracoastal Waterway, included language about the development of a Waterway Commission to oversee the waterways from Virginia to Florida. He stated that this language would combine five authorized projects into one project and tells the Corps to look at the waterway from Virginia to Florida and include recreational benefits.

Mr. Davenport stated that he is hopeful that the final wording for this Bill will be completed the first of next year and suggested that when the District visits Washington, we should also talk to the Corps about this bill. He stated that he also suggested that Mr. Crosley send letters to the Senate Committee about the language of this Bill and request that they support this language.

Mr. Davenport stated that in 2014, the District should continue to push and make requests for funding for Inland Waterways, work with the Corps to obtain funding appropriated for District projects, and develop a Contributed Funds Agreement.

Mr. Davenport noted that the Magnuson-Stevens Act needs to be reauthorized. He stated that several years ago, when the act was up for reauthorization, he and Mr. Roach worked to obtain language to exempt Congressionally Authorized Waterways from the Essential Fish Habitat definition. He stated that they came very close to obtaining that change, but after many meetings it did not go through and they could not get it resolved when the Senate changed in 2006. He stated that the Bill is set to be

reauthorized in 2015. He stated that we should start talking about this with the District's Delegation and Senate Committee.

Treasurer Blow stated that the Magnuson-Stevens Act is just as important as obtaining funding for dredging. Mr. Crosley asked if staff should talk to the delegation about this act. Mr. Davenport stated that the District's issue is specifically with Johnson's Seagrass. He stated that he will research it, but feels that it would be worthwhile to determine if there are other entities with the same issue, and develop some natural allies for the change.

Ms. Trulock stated that the timeline for maintenance dredging has to be reasonable because not all Congressionally Authorized Channels are dredged every year or every five years but they should still qualify for an exemption.

Commissioner Sansom stated that while maintenance dredging is not a new impact, we are being asked to mitigate for dredging a channel back to project depth.

Mr. Davenport stated that it is good for commissioners and staff to visit Washington D.C., see the process, and talk to the District's representatives. He stated that if we are going to talk about the Magnuson-Stevens Act, we may need to make two different trips. Mr. Crosley stated that the most effective time for a Hill visit would be between the third week in February and the third week in March. He suggested the last week in February for the trip. He asked commissioners interested in the trip to contact staff.

ITEM 8. Comments from the U.S. Army Corps of Engineers.

Ms. Shelley Trulock, the Intracoastal Waterway (IWW) Project Manager with the U.S. Army Corps of Engineers (Corps), stated that dredging of the Atlantic Intracoastal

Waterway (AIWW) at Sawpit has been completed. She stated that the contractor completed the job 15 days behind schedule and the contractor will pay FIND $1,100.00 per day in liquidated damages. She stated that the final survey showed that the job dredged approximately 70,000 cubic yards less material than originally anticipated and contracted, therefore there will be additional funding returned to the District for that change. She stated that she anticipates transferring the funding to the District within 60 days.

Ms. Trulock stated that for the IWW Indian River Reach 1 Dredging Project, two exemption letters were sent to the Florida Department of Environmental Protection (FDEP) regarding the presence of seagrass within the pipeline route and that the dredging is also exempt since the material will be placed upland into DMMA IR-2. She stated that the development of detailed plans and specifications will be the next order of business and should be complete by the end of April 2014.

Ms. Trulock stated that the IWW Bakers Haulover and Jupiter dredging projects will be funded by Hurricane Sandy emergency supplemental funding received by the Corps. She stated that these projects were awarded to Southwind Construction Corporation on September 19, 2013. She stated that the Jupiter Reach of this project will be completed first and then the contractor will move south to the Bakers Haulover Reach of the IWW. She stated that the pre-construction conference was held on December 4th. She stated that the Jupiter project will be completed by February 20, 2014 and the Baker's Haulover project will be completed by March 26, 2014. She stated that all material will be placed on the beaches and dredging should be completed by the end of March 2014.

ITEM 9. **Staff Report on Volusia County Area Projects.**

Mr. Crosley stated that Phase I of the Dredged Material Management Plan for the Intracoastal Waterway in Volusia County was completed in 1993. He stated that Phase II of the DMMP was completed in 1994 and all major land acquisition was completed in 1997.

Mr. Crosley stated that the 50-year dredging projection is 4.2 million cubic yards of material. He stated that the storage projection is 9 million cubic yards of material.

Mr. Crosley stated that, to date, three of the seven Dredged Material Management Areas (DMMA) in the county have been fully constructed with MSA 434/434C being completed in November of 2006. He stated that this effort also included the offloading of 780,000 cubic yards of beach quality material from MSA 434/434C which was placed on the beaches of New Smyrna to repair the beaches from storm impacts.

Mr. Crosley stated that all DMMA's with the exception of V-6 have been fenced. He stated that the future development area of DMMA V-22A has been cleared and grubbed. He stated that the presence of a bald eagle's nest on DMMA V-21 has precluded any development of that site beyond the security fence.

Mr. Crosley stated that in the fall of 2012, the USACE hopper dredge "Currituck" conducted operations in the IWW in the vicinity of Ponce Inlet for a period of approximately four days. He stated that approximately 3,000 cubic yards of material was dredged for the temporary relief of shoaling in this vicinity. He stated that a full-scale dredging event was initiated in late summer of 2013 and completed in November 2013. He stated that approximately 245,000 cubic yards were removed from Cuts V-22

through V-28 and placed in nearby MSA 434/434C under the District's upland permit exemption. He noted that the contractor did an excellent job.

Mr. Crosley stated that the Volusia County Waterways Economic Study Update was completed in 2011 and it found that there were approximately 284 waterway-related businesses in the county employing 1,466 people, with salaries of approximately $53.4 million and an economic output of $235.4 million. He stated that this economic impact generated $11.2 million in tax revenue. He stated that property values were determined to be increased by $339 to $429 million by the presence of the IWW channel. He stated that the study reports that these values would decrease by approximately 20% overall if dredging of the waterways ceased and he suggested that is an indication that Volusia County is comprised of mostly small recreational boaters.

Mr. Crosley stated that since 1986, the District has provided $9.32 million in Waterways Assistance Program funding to complete 91 projects in the county, having a total constructed value of approximately $24.4 million. He stated that the county and nine waterfront municipalities have participated in the program.

Mr. Crosley stated that the District's Cooperative Assistance Program has provided funding assistance for the following projects with elements in Volusia County: Florida Clean Marina Program; Florida Clean Vessel Act Program; Deleon Springs State Park Dock Design; Florida Marine Patrol Officer Funding; and the St. Johns River Boating Safety Search and Rescue Program. He stated that the District's funding assistance for the Volusia County portion of these projects was approximately $465,000.00.

Mr. Crosley stated that the District currently prints and distributes the following brochures with specific information about Volusia County Waterways: Volusia County Manatee and Boating Safety Speed Zones; the Economic Impact of Volusia County Waterways; ICW Channel Conditions; and the ICW Moveable Bridge Guide.

Mr. Crosley stated that the District has partnered with Volusia County for the past several years to provide funding assistance for the removal of trash and debris from Volusia County's waterways. He stated that the District provides up to $10,000.^{00}$ per year for this program. He stated that to date, no vessels have been removed in Volusia County through the Small-Scale Derelict Vessel Program.

Mr. Crosley stated that the District has assisted Volusia County in the development of a Spoil Island Management Plan.

Dr. Taylor noted that DMMA V-25 will serve both Dredging Reaches II & III and the site allows for a six mile pipeline which is within the pipeline criteria.

Commissioner Isiminger asked about the cost of purchasing and using non-waterfront property and the use of a pipeline versus purchasing waterfront property. Dr. Taylor stated that the cost to acquire waterfront property verses non-waterfront is astronomical and he noted it is not always available for purchase because it has been developed.

Treasurer Blow asked about the pipeline easement. Dr. Taylor stated that the pipeline corridor is within the Department of Transportation's (DOT) right-of-way. He noted that there is also an adjacent drainage canal that could be used.

ITEM 10. Brevard County, Indian River County, and St. Lucie County - Reach 1 Dredging Needs Assessment, Indian River Lagoon (IRL).

Mr. Crosley stated that at the November meeting, the Board requested staff work with our engineer to evaluate our current site inventory and dredging needs in this portion of the Indian River Lagoon (IRL), and to determine the most effective utilization of potential State funding for muck dredging in this area. He stated that the 2004 survey data is the most recent data that staff has, and he noted that is why staff is promoting the completion of a new centerline survey. He stated that the data will have to be updated after completion of the new survey.

Mr. Adams stated that staff reviewed available 2004 data of the IRL from Brevard County, Indian River County, down to the northern portion of St. Lucie County. He stated that staff looked at the amount of channel navigation work that could be completed for $20 million and prioritized recommendations. He stated that staff then prioritized muck removal by area and controlling navigation factors, such as sounding; and noted that soundings are very important when looking at navigation.

Mr. Adams stated that cost estimates for IWW dredging of Brevard County Reach III and construction of DMMA BV-11 would cost $10.1 million, St. Lucie County Reach I, using DMMA SL-2 would cost $4.5 million, and Brevard County Reach II and construction of DMMA BV-4B would cost $12.6 million or an estimated total cost of $27.2 million.

Mr. Adams stated that they then looked at muck dredging and he noted that current data is even less accurate than dredging data. He stated that the only information available was the Trefry report and he noted that report only showed channel areas impacted with muck in with Brevard County. He stated that for muck removal in priority

order in Brevard County; Reach V and construction of DMMA BV-40 would cost $26.5 million, Reach II and construction of DMMA BV-4B would cost $15.9 million, and Reach III and construction of DMMA BV-11 would cost $9.6 million or more, with a total estimated cost of $52 million.

Mr. Adams noted that he is more comfortable with the dredging cost proposal than with the muck removal cost proposal. He noted that muck removal is variable and depends on the amount and way the material is removed. He noted that the re-handling of muck out of the disposal area is not included is this cost estimate.

Commissioner Sansom stated that after he read this report, he asked Mr. Adams if Taylor Engineering was given $20 million with the goal of muck removal, what could they remove the fastest, and where. Mr. Adams stated that existing disposal areas DMMA BV-2C and DMMA BV-52 could be used immediately. Commissioner Sansom asked about using the DMMA BV-NASA. Mr. Adams stated that before that site could be used for muck, they would have to perform investigations regarding the impact of the material to the adjacent area. He noted that site is in an area where the groundwater is extremely high and there is a wildlife refuge near the site. Dr. Taylor stated that the District had to get approval from NASA to construct that site. He stated that the basin is irregular and is full of water and it is not a traditional site. He stated that this site must be de-watered before it can be used and it is meant for sand and not muck.

Commissioner Dritenbas asked about the dewatering characteristics of muck versus traditional material. Mr. Adams stated that it will take much longer to dewater muck because it already has more water in it and more water will be added during the dredging process. He stated that in his opinion, it would take a minimum of six months

for a site filled with muck to dry out. He also noted that you cannot just let the material dry out; they would have to physically work the material to get it to dry out.

Mr. Adams stated that the District has six sites in the area that need to be evaluated and built.

Commissioner Sansom stated that the Legislature may allocate $20 million for a one-time muck removal project or they may continue allocating funding for continued muck removal and maintenance. He noted that the District should prepare and plan for both options.

Mr. Adams stated that once the Legislature says go, there would be six months of data collection, design and permitting, three to six months of dredging, six months or longer of dewatering, in addition to material removal and disposal. He stated that dredging the northern reach in Brevard County of approximately 1 million cubic yards, using DMMA BV-2C would be a $10 million job. He stated that dredging 120,000 cubic yards, using DMMA BV-52 would be a $5 million job. He stated that dredging in St. Lucie and using DMMA SL-2 would cost approximately $3 million. He noted that these estimates do not include offloading of the material.

Mr. Crosley stated as Tallahassee funding develops, he feels that it will present an opportunity for the District to construct several Dredged Material Management Sites and work with the State in this muck removal project.

ITEM 11. Review of the Proposed 5-Year Dredging and Dredge Material Management Area (DMMA) Plan.

Mr. Crosley stated that staff is updating the District's five-year plan for dredging and DMMA construction. He stated that this document is intended to be a "living" planning document that will be utilized to schedule future District projects. He stated that

as situations change and opportunities are repositioned, the scheduling of these projects may shift significantly. He stated that however, this information provides a basis to plan and finance future waterway improvements.

Mr. Crosley stated that this plan is open for opportunities, such as federal funding, site development, dredging needs, the muck issues, and various other needs. He stated that even without the muck issue, we have ongoing maintenance dredging requirements.

Mr. Crosley stated that we are completing DMMA NA-1 so that the District can perform dredging of Nassau Reach I and remove the navigation issues in that Reach.

Mr. Crosley noted that every few years we perform maintenance dredging in the Matanzas area.

Mr. Crosley stated that DMMA SJ-20A is an unconstructed inland site just south of St. Augustine in St. John's County. He indicated that the county has approached the District about using the site. He stated staff needs to work with the county concerning their plans to use this site. He stated that this site has not been built and staff is uncomfortable with it being used as a temporary site before building a permanent facility. He noted that the cost to construct this site will be $3 to 4 million.

Mr. Crosley stated that Plans and Specifications for construction of DMMA FL-3 have been completed and it should be going into construction soon.

Mr. Crosley noted that the construction schedule for DMMA BV-4B was moved up because of the upcoming IRL muck issue.

Mr. Crosley stated that staff is waiting on the construction of DMMA BV-40 to determine if it is needed by the SJRWMD so they can use the site for dredging the Eau

Gallie River project. He noted that the SJRWMD may also pursue constructing their own site.

Mr. Crosley stated that the District's biggest dredging needs are the Okeechobee Waterway and the construction of DMMA O-7.

Mr. Crosley stated that currently the Broward Reach III deepening project is scheduled to be completed in years 2014-2015. He noted that Broward County has been and continues to be difficult to work with. He noted that this is a big project that will provide economic benefits to Broward County. He stated that he is hopeful that the issues with the county will be resolved.

Mr. Crosley stated that the Legislature is currently discussing muck in the Indian River Lagoon and the removal of that material. He noted that this issue could become a District project and that the above work schedules could change.

Treasurer Blow referred to District site DMMA SJ-20A and asked if the District will need that site. Mr. Crosley answered yes the District will need that site and noted that there are dredging needs in that vicinity but they are not critical. He stated that it is the county that would like to use the site in the near future. He stated that the site is scheduled for construction within three to five years. Treasurer Blow noted that the District is trying to assist the local government.

Commissioner Sansom asked if staff has energized the local industry and boating community to obtain support of the Broward Deepening project. Mr. Crosley stated that he is currently working on that issue, and he noted that the marine industry fully supports this deepening project. He stated that the county is not cooperating and if they do not provide the District with a place to put the dredged material, this entire project could be

in jeopardy. Mr. Crosley noted that the District has budgeted $19 million for this project. Commissioner Sansom stated that the District could and will use that funding for other projects if the Broward County does not want the deepening project.

Commissioner Dritenbas referred to DMMA IR-7A and DMMA IR-14A that have not been constructed. Mr. Crosley stated that those sites are not needed for the District's current five-year plan. He noted that if the District is asked to perform IRL muck removal, the site may be needed and they would have to be constructed earlier than scheduled.

ITEM 12. Lease Agreement for Dredged Material Management Area (DMMA) DU-8, Duval County.

Mr. Crosley stated that the District has received a request from Brance Diversified, Inc. to continue to use DMMA DU-8 to manage approximately 7,000 cubic yards of dredged material from the Queen's Harbor Yacht and Country Club dredging project. He stated that the material has been tested and is suitable for placement and removal from the District's site. He stated that the contractor is currently leasing the site for another local project. He stated that the original lease was approved by the Board in August of 2012. He stated that if this item is approved, the standard lease will be executed requiring payment for the use of the site, insurance coverage to the District, and removal from our property of all material and equipment placed on our site. He stated that staff is recommending the continuation of the $300,000.00 bond from the lessee, which was the accepted surety for the previous project.

Mr. Crosley stated that the dredged material will be pumped by pipeline to the District's site. He stated that staff is working to install a permanent pipeline sleeve for this site and he will be bringing that project to the Board next month.

Commissioner Bowman recused himself from this discussion and vote because he lives in Queen's Harbor Yacht & County Club. He completed the appropriate paper work.

Commissioner Netts made a motion to approve a lease to Brance Diversified, Inc. for the use of DMMA DU-8 for the placement of approximately 7,000 cubic yards of material from the Queen's Harbor Yacht & Country Club. The motion was seconded by Treasurer Blow. Chair Kavanagh asked if there was any further discussion. Hearing none, a vote was taken and the motion passed with Commissioner Bowman abstaining.

ITEM 13. Finance and Budget Committee Report.

Treasurer Blow stated that the Finance and Budget Committee met earlier today and the committee reviewed and recommends approval of the October 2013 financial statements, the delegation of authority, and the expenditure and project status report.

Treasurer Blow made a motion to approve the recommendations of the District's Finance and Budget Committee of the October 2013 financial statements. The motion was seconded by Commissioner Sansom. Chair Kavanagh asked for discussion. Hearing none, a vote was taken and the motion passed.

ITEM 14. Washington Report.

This item was moved and discussed under Item 7A.

ITEM 15. Additional Staff Comments and Additional Agenda Items.

Chair Kavanagh asked if there were any additional staff comments or agenda items.

Mr. Crosley recommended that the Washington D. C. Trip be scheduled the week starting February 24th. He suggested that commissioners schedule the travel so that

meetings can start around 12:00 p.m. on Monday and continue through early afternoon Wednesday, February 26th. He requested that commissioners interested in the trip contact staff.

ITEM 16. Additional Commissioners Comments.

Chair Kavanagh asked if there were any additional Commissioner comments.

Treasurer Blow stated that in regards to the Anchoring Ordinance Program the Florida Fish and Wildlife Conservation Commission (FWC) has approved to extend the program, complete another public survey in 2015, and extend the pilot anchoring program to January 1, 2017.

Commissioner McCabe thanked commissioners for attending the Volusia County Outreach event and Board Meeting. She noted that the Outreach Event was attended by many local officials and she appreciates their interest in the District's work.

ITEM 17. Adjournment.

Chair Kavanagh stated that hearing no further business the meeting was adjourned at 11:55 a.m.

ST. JOHNS COUNTY
PROJECT STATUS UPDATE

January 2014

Dredged Material Management Plan

Phase I of the Dredged Material Management Plan (DMMP) for the Intracoastal Waterway in St. Johns County was completed in 1989. Phase II of the DMMP was completed in 1992 and all major land acquisition was completed in 1995. (Please see the attached location maps).

The 50-year dredging projection for this area is approximately 4.3 million yds^3 and the storage projection is 9.3 million yds^3. Note that maintenance dredging in Dredging Reach V in the vicinity of the Matanzas Inlet is 67% of the county's projected dredging volume. With a frequency of about every 2.7 years, this reach is the highest shoaling reach of the District's waterway. Reach I and II in the Palm Valley area constitute approximately 25% of the dredging volume, while Reaches III and IV have never been dredged and are naturally deep areas of the waterway with minimal shoaling.

Dredged Material Management Area Development

To date, two of the four upland Dredged Material Management Areas in the county have been fully constructed (DMMA SJ-14 & SJ-1). The other two, DMMA SJ-20A and DMMA SJ-29, have had Phase I development (cleared & fenced) completed. One beach disposal area, SJ-MB is located south of Matanzas Inlet.

Material was removed by St. Johns County from DMMA SJ-1 in 2011 to repair the sand dune at Summerhaven Beach. At that time, the District removed material that had been blown out of the site by Tropical Storm Fay. This work was coordinated with the county's contractor and 80% of the District's cost was paid by FEMA.

Currently, the county has requested to utilize SJ-20A for a dredging project associated with the nearby Treasure Beach community. Staff and our engineer are in negotiations with the County and their technical staff for the construction of the permanent facility at this location.

Waterway Dredging

In 2011, Dredging Reach V near Matanzas Inlet maintenance dredged approximately 180,000 yds^3 of material, with placement on the southern portion of Summerhaven Beach. Plans & specifications for dredging this reach will again be pursued in 2014. Dredging Reach III in the vicinity of St. Augustine Inlet was dredged in 2011, with the material being placed on the beach at Anastasia State Park.

The dredging of the northern portion of Reach I, Palm Valley, was completed in early 2010, with 232,000 yds^3 of material being placed in DMMA DU-9. This project completed the maintenance of the 15 miles of channel in the Palm Valley Cut.

FIND

ST. JOHNS COUNTY
PROJECT STATUS UPDATE

January 2014

Waterways Economic Study
The St. Johns County Waterways Economic Study was completed in 2005 and it found that there were 155 waterway-related businesses in the county employing 2,157 people, with salaries of $73 million and a direct economic output of $139 million and a total economic impact of $213 million. Property values were determined to be increased by $488 to $726 million by the presence of the ICW channel. The study also determined that over 50% of this economic impact would be lost if dredging of the waterways were to cease. (Please see attached map for waterway related business locations).

Waterways Assistance Program
Since 1986, the District has provided over $5 million in Waterways Assistance Program funding to 54 projects in the county having a total constructed value of $16.9 million. The County, the City of St. Augustine and the St. Augustine Port, Waterway and Beach District have all participated in the program. (Please see attached location map and listing).

Primary projects funded include the St. Augustine Municipal Marina, public boat ramps at Riverdale, Frank Butler, Shore Drive and Vilano, the St. Augustine Lighthouse and public channel dredging in Salt Run, Frank Butler and St. Augustine South boat ramps.

Cooperative Assistance Program
The District's Cooperative Assistance Program has provided funding assistance for the following projects with elements in St. Johns County: the Guana, Tolomato, Matanzas National Estuarine Research Reserve Environmental Education Center; Florida Clean Marina Program; Florida Clean Vessel Act Program; Anastasia State Park Environmental Education Signage; Florida Marine Patrol Officer Funding; and the St. Johns River Boating Safety Search and Rescue Program. The District's funding assistance for the St. Johns County portion of these projects was approximately $790,000 .

Interlocal Agreement Program
The District's Interlocal Agreement Program has provided funding assistance for the following projects with elements in St. Johns County: the Florida Clean Marina Program and the Florida Clean Vessel Act Program. The District's funding assistance for the St. Johns County portion of these projects was approximately $25,000.00

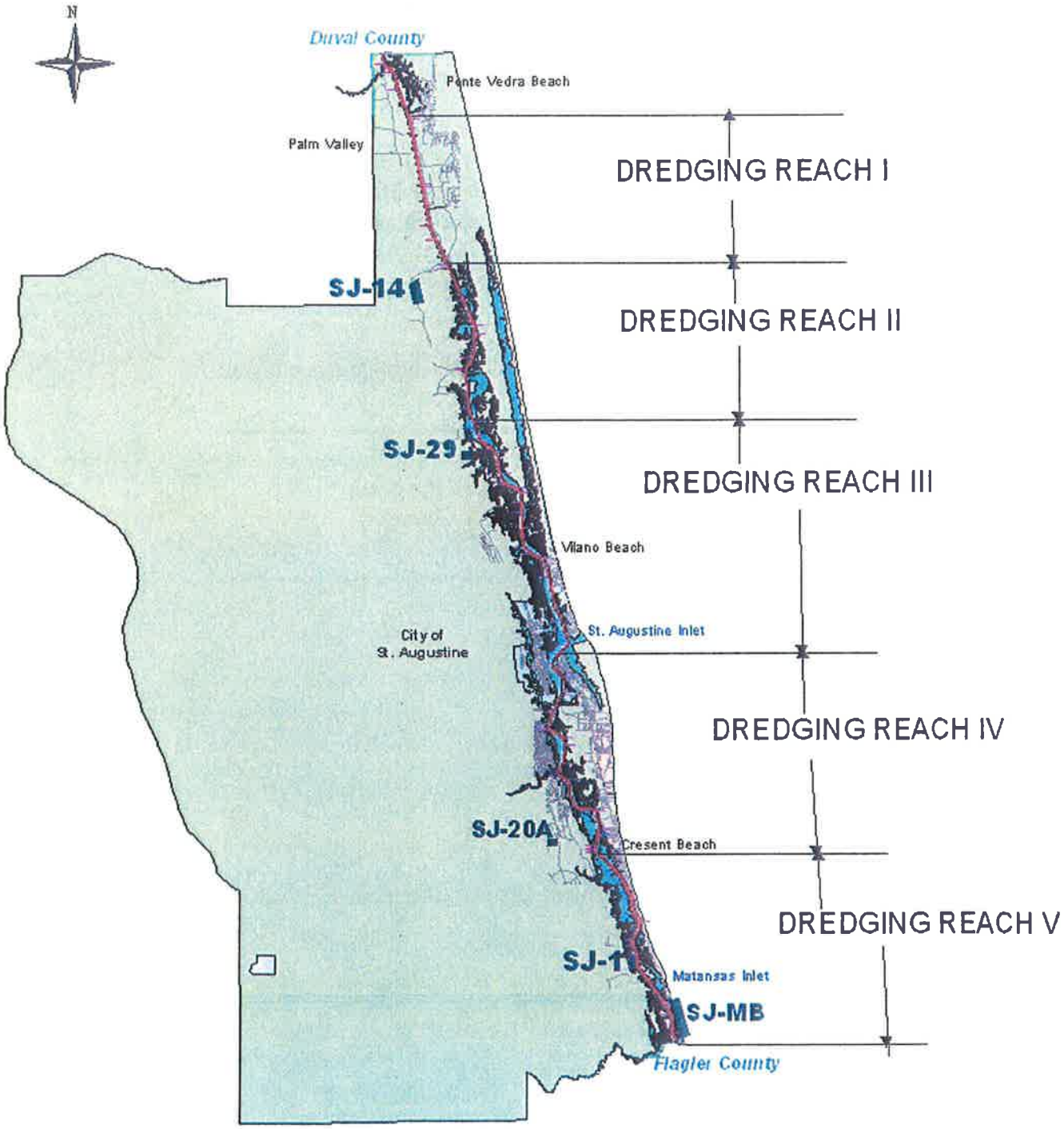
Public Information Program
The District currently prints and distributes the following brochures with specific information about St. Johns County Waterways: the Economic Impact of St. Johns County Waterways; ICW Channel Conditions; and the ICW Moveable Bridge Guide.

Waterway Clean Up Program
For several years, the District partnered with St. Johns County Solid Waste Department on waterway cleanups. In 2012, the Lighthouse Archaeological Maritime Program (LAMP), Inc., a group associated with the St. Augustine Lighthouse & Museum, participated in this program.

Small-Scale Derelict Vessel Removal Program
Two derelict vessels have been removed in St. Johns County through this program.

Small-Scale Spoil Island Enhancement and Restoration Program
No spoil island projects have been funded yet in St. Johns County.

INTRACOASTAL WATERWAY
DREDGING REACHES AND
DREDGED MATERIAL MANAGEMENT AREAS
IN ST. JOHNS COUNTY



FIND Easement
FIND Owned
ICW Right-of-Way
Channel

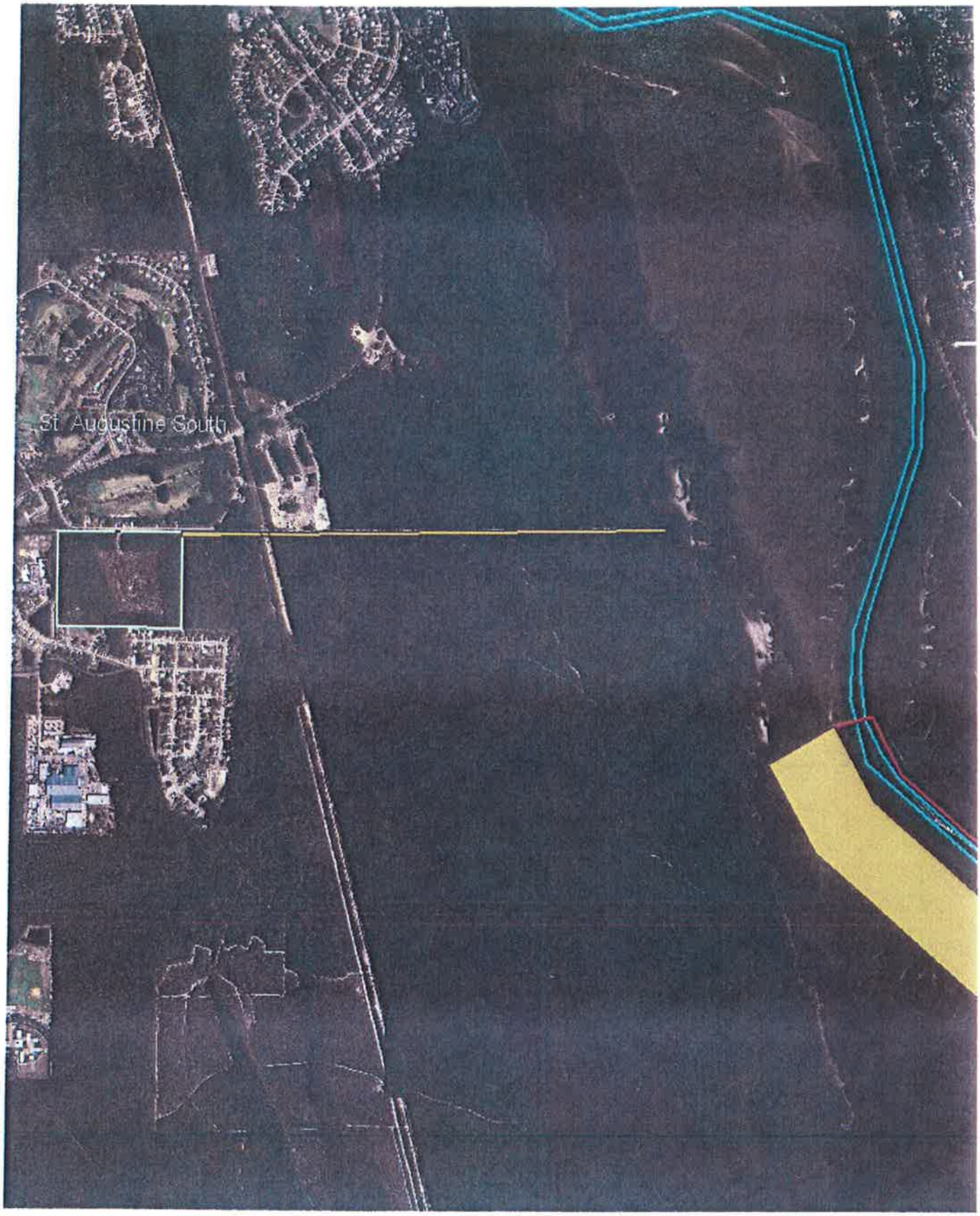
Dredged Material Management Area
SJ-14


Nocatee Pkwy
210
DMMA SJ-14
Davis Park Rd
N
© 2013 Google
1318 ft
Google earth
1994
Imagery Date: 1/22/2013 30°06'45.16" N 81°24'06.69" W elev 28 ft eye alt 5726 ft

FIND Easement
FIND Owned
ICW Right-of-Way
Channel

Dredged Material Management Area
SJ-29


N
DMMA SJ-29
490 ft
© 2013 Google
Deerfield Rd
Google earth
1994
Imagery Date: 1/22/2013 30°00'59.17" N 81°22'07.58" W elev 7 ft eye alt 2146 ft



FIND Easement
FIND Owned
ICW Right-of-Way
Channel

Dredged Material Management Area
SJ-20A


Cortez Dr
DMMA SJ-20A
Bilbao Dr
Pardo Way
Cacique Dr
Adela St
© 2013 Google
564 ft
1994
Imagery Date: 1/22/2013 29°47'16.88" N 81°18'20.81" W elev 27 ft eye alt 2472 ft
Google earth

FIND Easement

ICW Right-of-Way
Channel

Dredged Material Management Area
SJ-1


N
DMMA SJ-1
© 2013 Google
Google earth
1179 ft
1995
Imagery Date: 1/19/2012 29°43'05.54" N 81°14'47.26" W elev -1 ft eye alt 5136 ft

ECONOMIC BENEFITS OF THE DISTRICT'S WATERWAYS

ST. JOHNS COUNTY

Purpose

To update economic benefits in St. Johns County of marine-related activities on the District Waterways, as previously estimated in *An Economic Analysis of the District's Waterways in St. Johns County*, September 2005, and to provide the general public and Federal, State, and local officials with a clear understanding of the importance of maintaining the waterways.

Scenarios Evaluated

1. Current Existing Conditions
2. Cessation of Waterways Maintenance
3. Increase in Waterways Maintenance

ECONOMIC IMPACTS

Current Existing Impacts

- $180.9 million in business volume
- $41.3 million in personal income
- 1,090 jobs
- $7.7 million in tax revenue

Impacts of Cessation of Waterways Maintenance

- Decrease of $124.9 million in business volume
- Decrease of $27.6 million in personal income
- Decrease of 726 jobs
- Decrease of $4.6 million in tax revenue

Impacts of an Increase in Waterways Maintenance

- Increase of $15.8 million in business volume
- Increase of $4.4 million in personal income
- Increase of 123 jobs
- Increase of $0.8 million in tax revenue

Due to anomalies in Florida Department of Revenue reported gross sales data, the impact of the 2007-2009 U.S. Economic Recession on the St. Johns County economy could not be estimated.

Economic Benefits as of April 2011

ECONOMIC BENEFITS OF THE DISTRICT'S WATERWAYS

ST. JOHNS COUNTY

The Intracoastal Waterway

The Atlantic Intracoastal Waterway (AICW) is a 1,391-mile channel between Trenton, New Jersey, and Miami, Florida. The Waterway along Florida's eastern seaboard is 406 miles long and follows coastal rivers and lagoons past numerous tourism-oriented communities. The channel is authorized to a depth of 12 feet from Nassau County to Fort Pierce, and a 10 foot depth south through Miami-Dade County. Boating activities on the waterways contribute to the existence of numerous marine-related businesses such as marinas and boatyards and have stimulated development of residential properties on the Waterways.

The Navigation District

The Florida Inland Navigation District, created in 1927, is the local sponsor for the AICW in Florida. In cooperation with the Jacksonville District of the U.S. Army Corps of Engineers, the Navigation District is responsible for maintenance of the AICW in Florida. To maintain navigation, the waterways need to be periodically dredged due to shoaling from currents, upland soil erosion, and the movement of offshore sands through the ocean inlets. Maintenance dredging is projected to cost approximately $12 to $16 million annually during the next 50 years, of which 50 percent of the costs are expected to be borne by property owners within the Navigation District's jurisdiction.

The Navigation District also partners with other governments to provide waterway access and improvement facilities for our mutual constituents. These projects include public boat ramps, marinas, side channels, parks, fishing piers, boardwalks, navigation aids, derelict vessel removal, shoreline stabilization, and waterway cleanups.

Source of Data Used in This Analysis

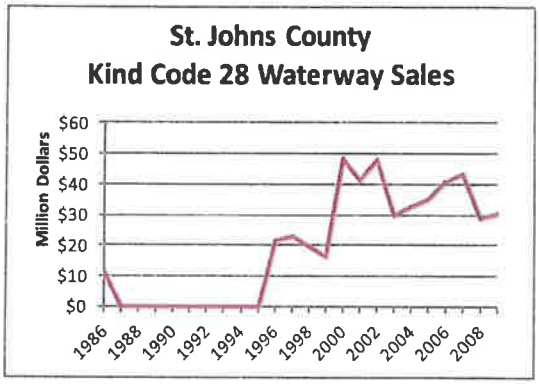
The economic benefits of the Waterways were estimated in September 2005 in *An Economic Analysis of the District's Waterways in St. Johns County.*

Updating of Previously Estimated Benefits

The benefits presented in this analysis were estimated by updating the direct marine-business impacts in the original analysis to current values using the change in gross sales reported by boat dealers to the Florida Department of Revenue (FDOR). The updated direct impacts were used in conjunction with an IMPLAN input/output model to estimate total economic benefits.

Estimating the Impact of the Recession

The methodology for estimating the impact of the recession was based on the trend in gross sales of boat dealers established over the 20-year period prior to the onset of the recession. This trend was used to estimate the theoretical gross sales if sales had continued to increase at the rates previously experienced. However, anomalies in the FDOR reported gross sales data for St. Johns County prevented the development of an estimate of the recession. As illustrate in the graph below, FDOR reported gross sales data for boat dealers were not available for 1987-1995 and the reported sales for 1996-2009 fluctuated widely between $16.3 million to $48.5 million. As a result, the impact of the recession on the St. Johns County economy could not be estimated.

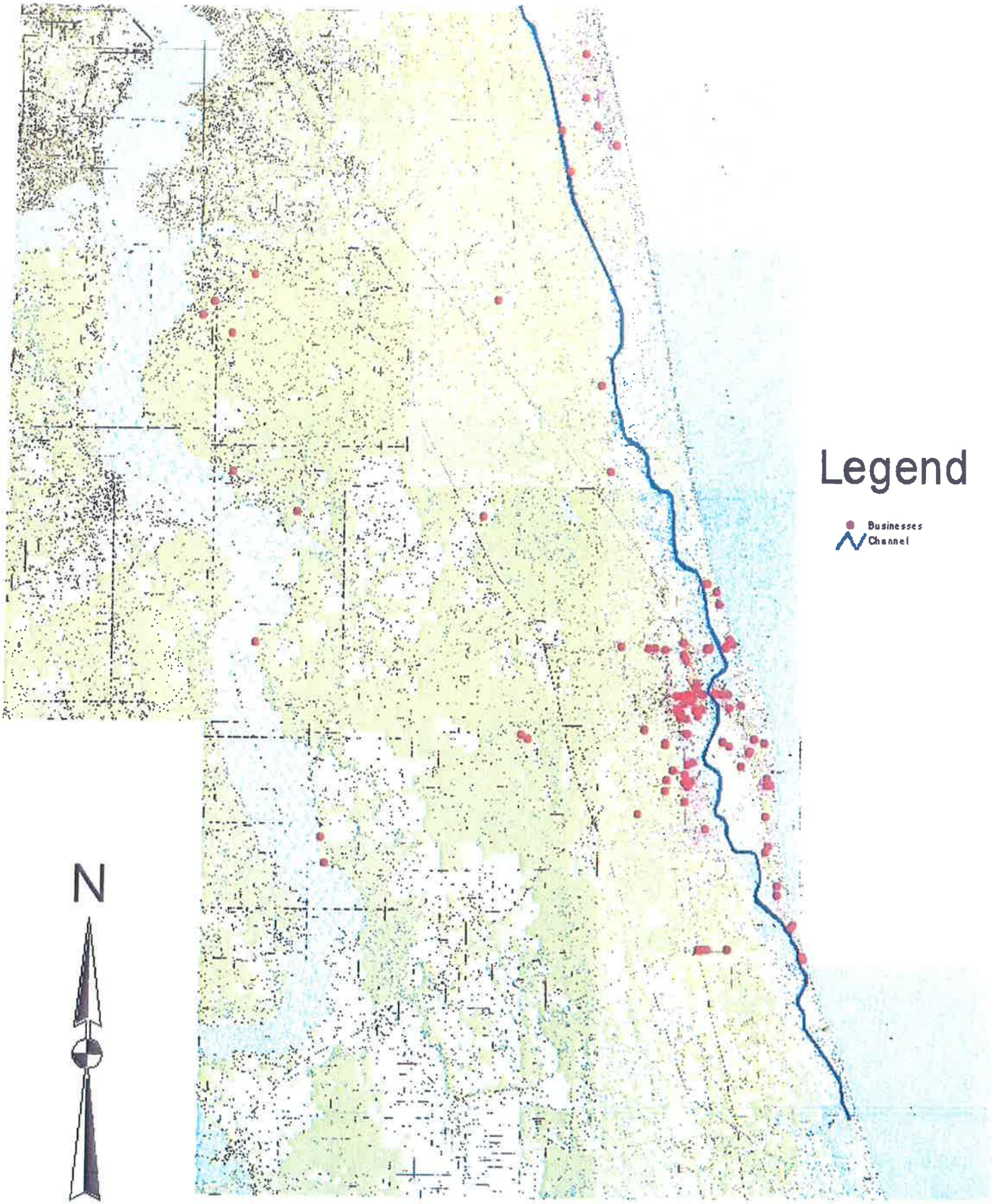


Annual Boater Spending on Gas, Food, and Drinks at Non-Marine-Related Establishments

- Current existing conditions: $11.8 million
- Cessation of maintenance: $9.7 million
- Increased maintenance: $11.8 million

Vessel Draft Restrictions Assumed for Each Scenario

- Current existing conditions: 6.5 feet MLW
- Cessation of maintenance: 3 feet MLW
- Increased maintenance: 12 feet MLW



Location Map

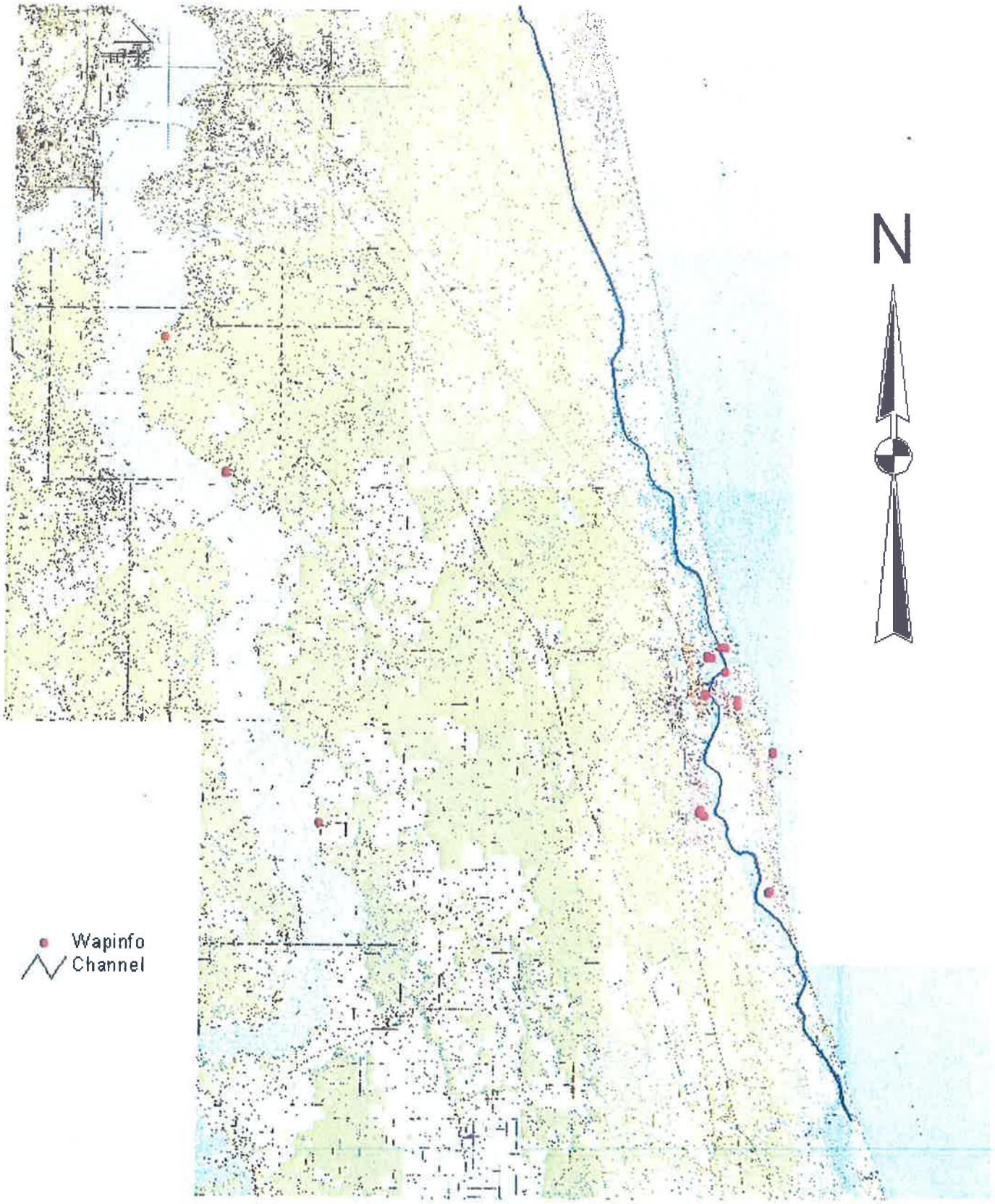
Waterway Related Businesses in St. Johns County

WATERWAYS ASSISTANCE PROGRAM PROJECTS
ST. JOHNS COUNTY
1986-2013

Project Name	Project Number	Project Sponsor	Grant Amount	Total Cost
I.C.W. Nature Greenway/ Boardwalk Replacement	SJ-01-17	St. Johns County	$57,105	$207,837
Vilano I.C.W. Fishing Pier Improvements	SJ-01-18	St. Johns County	$107,900	$225,809
Riverdale Boat Ramp Improvements	SJ-02-20	St. Johns County	$175,000	$350,000
Rattlesnake Island - Phase I (Expired)	SJ-03-22	St. Johns County	$50,000	$100,000
St. Johns River Park - Phase I	SJ-03-23	St. Johns County	$32,500	$65,000
Vaill Point Park - Phase I	SJ-03-24	St. Johns County	$30,000	$60,000
Moultrie Creek Bluff Stabilization & Beach Access	SJ-04-26	St. Johns County	$100,000	$600,000
Frank Butler Park West - Phase I	SJ-05-28	St. Johns County	$35,000	$70,000
Shore Drive Boat Ramp - Phase I	SJ-05-29	St. Johns County	$30,000	$60,000
Alpine Groves Fishing Pier - Phase I	SJ-07-31	St. Johns County	$25,000	$50,000
Frank Butler Park West Construction - Phase I I	SJ-07-32	St. Johns County	$239,750	$520,500
Shore Drive Boat Ramp Improvements	SJ-07-33	St. Johns County	$105,000	$210,000
Alpine Groves Fishing Pier - Phase I I Construction	SJ-08-34	St. Johns County	$150,000	$300,000
Fort Mose Boardwalk Canoe/ Kayak Platform - Phase I	SJ-08-35	St. Johns County	$40,000	$80,000
Green Road Boat Ramp	SJ-08-36	St. Johns County	$60,000	$120,000
Usina Boat Ramp Improvements	SJ-08-37	St. Johns County	$80,000	$160,000
Usina Boat Ramp Fishing Pier Replacement	SJ-09-39	St. Johns County	$80,000	$160,000
Vilano Beach Fishing Pier Floating Dock - Phase I	SJ-09-40	St. Johns County	$25,000	$50,000
Fort Mose Boardwalk & Canoe/ Kayak Platform - Phase I I	SJ-10-43	St. Johns County	$54,800	$109,600
River House Fishing Pier	SJ-10-44	St. Johns County	$75,000	$150,000
Vilano Beach Fishing Pier Floating Dock Addition-ph I I	SJ-11-47	St. Johns County	$160,000	$320,000
Vilano Beach Boat Ramp Dredging	SJ-12-51	St. Johns County	$40,000	$80,000
Old Shands Bridge Redevelopment	SJ-87-1	St. Johns County	$20,000	$49,000
Old Shands Bridge Parking Lot	SJ-87-2	St. Johns County	$23,175	$46,350
Vilano Boat Basin	SJ-87-3	St. Johns County	$8,000	$16,000
Vilano Boat Basin Study	SJ-88-4	St. Johns County	$11,128	$38,256
Channel Dredging (Butler Park & St. Augustine South)	SJ-89-5	St. Johns County BCC	$60,000	$153,000
Vilano Boat Basin Dredging	SJ-89-6	St. Johns County	$10,000	$24,300
Vilano Boat Basin/Ramp Repairs	SJ-92-9	St. Johns County	$37,500	$75,000
Butler Park Channel Dredging, Parking & Road Imp.	SJ-97-12	St. Johns County	$51,753	$103,505
South Avendia Menendez Seawall - Phase I (Expired)	SJ-SA-02-19	City Of St. Augustine	$62,500	$125,000
San Sebastian River Walk - Phase I (Cancelled)	SJ-SA-03-21	City Of St. Augustine	$12,500	$25,000
St. Augustine Municipal Marina - Phase I (Expired)	SJ-SA-04-25	City Of St. Augustine	$12,500	$25,000
S. Avenida Menendez Seawall - Phase I I (Withdrawn)	SJ-SA-05-27	City Of St. Augustine	$240,000	$2,100,000
Lighthouse Park Boat Ramp - Floating Dock Improvements	SJ-SA-07-30	City Of St. Augustine	$71,550	$143,100
Initial Dredging Of The Salt Run Channel	SJ-SA-09-38	City Of St. Augustine	$434,705	$600,000

WATERWAYS ASSISTANCE PROGRAM PROJECTS
ST. JOHNS COUNTY
1986-2013

Project Name	Project Number	Project Sponsor	Grant Amount	Total Cost
Salt Run Navigation Channel Dredging	SJ-SA-10-41	City Of St. Augustine	$320,059	$426,745
Barge Terminal Channel Restoration Dredging - Phase I	SJ-SA-10-42	St. Aug/SJC Airport Auth	$40,000	$80,000
Dredging Of Municipal Marina Basin	SJ-SA-11-45	City Of St. Augustine	$200,000	$400,000
Barge Terminal Navigation Channel Restoration - Ph I I	SJ-SA-11-46	St. Aug/SJC Airport Auth	$98,430	$200,000
Dredging Of Salt Run	SJ-SA-12-48	City Of St. Augustine	$210,000	$280,000
Dredging Of San Sebastian River Channel	SJ-SA-12-49	City Of St. Augustine	$100,000	$200,000
Dredging of Salt Run Channel Phase 4	SJ-SA-13-52	City of St. Augustine	$210,000	$280,000
Dredging of San Sebastian River Channel Ph 4	SJ-SA-13-53	City of St. Augustine	$130,917	$261,834
Municipal Marina Project	SJ-SA-90-7	City Of St. Augustine	$95,000	$2,514,283
Municipal Marina Project - Phase I I	SJ-SA-91-8	City Of St. Augustine	$110,000	$2,497,300
Repair Of The St. Augustine Lighthouse	SJ-SA-93-10	City Of St. Augustine	$174,300	$415,000
Public Event/ Activities Pier	SJ-SA-95-11	City Of St. Augustine	$20,000	$45,000
St. Augustine Lighthouse Refurbishment & Protection	SJ-SA-99-15	City Of St. Augustine	$47,150	$94,300
St. Augustine Municipal Marina - Disaster Repairs	SJ-SA-99-16	City Of St. Augustine	$75,000	$450,000
Barge Terminal Nav. Channel Restoration Dredging - Ph B	SJ-SAP-12-50	St. Aug/SJC Airport Authority	$91,870	$183,740
Barge Navigation Channel Maintenance Dredging Ph IV	SJ-SAP-13-54	St. Aug/SJC Airport Authority	$100,000	$200,000
Barge Navigation Channel Ramp Repair Ph I (design)	SJ-SAP-13-55	St. Aug/SJC Airport Authority	$25,000	$50,000
Salt Run Shoal Removal & Beach Nourishment	SJ-SAP-98-13	Aug. Port, Wtwy. & Beach D	$180,000	$622,250
Salt Run Shoal Removal & Beach Nourishment	SJ-SAP-99-14	Aug. Port, Wtwy. & Beach D	$50,000	$145,200
		Totals	**$5,085,092**	**$16,917,909**



LOCATION MAP
FLORIDA INLAND NAVIGATION DISTRICT
WATERWAYS ASSISTANCE PROGRAM PROJECTS
IN ST. JOHNS COUNTY

FLORIDA INLAND NAVIGATION DISTRICT

PURCHASE OF FRESHWATER MITIGATION CREDITS IN REGIONAL WATERSHED MITIGATION BASIN NUMBER 6, ST. JOHNS AND DUVAL COUNTIES, FLORIDA

REQUEST FOR COST PROPOSAL

December 18, 2013

PURCHASE OF FRESHWATER MITIGATION CREDITS IN REGIONAL WATERSHED MITIGATION BASIN NUMBER 6, ST. JOHNS AND DUVAL COUNTIES, FLORIDA

REQUEST FOR COST PROPOSAL AND OPTION TO PURCHASE

The Florida Inland Navigation District, hereinafter referred to as the "District", desires to receive cost proposal(s) and an option to purchase from interested property owners to provide up to 14 Uniform Mitigation Assessment Method (UMAM) credits for freshwater hardwood mitigation. These UMAM credits must be located in Regional Watershed Mitigation Basin Number 6, Tolomato River and Intracoastal Waterway Nested.

I. BACKGROUND

The Florida Inland Navigation District (District) is the state sponsor of the Atlantic Intracoastal and a portion of the Okeechobee Waterways (Waterway) in Florida. The District owns land for dredged material management known as Dredge Material Management Area (DMMA) SJ-14 within St. Johns County and in Mitigation Basin 6, (Please see the attached location maps, Attachment A & B). A release of a saltwater/silt slurry from the DMMA SJ-14 has impacted onsite and offsite hardwood wetlands. The District has executed an agreement with the Florida Department of Environmental Protection (FDEP) to restore these lands and to address the functional loss of the impacted wetlands. The anticipated FDEP UMAM will require approximately up to 14 UMAM credits to be either created or purchased by the District to fulfill the terms of the agreement.

II. PROJECT

This Project is to provide up to 14 UMAM credits for freshwater hardwood mitigation. As negotiations are ongoing with FDEP about future mitigation requirements, FIND would like to reserve the right to offer a 5 credit increase or decrease in the credits purchased without changing the purchase price per credit. A cost proposal and option to purchase can also be submitted for less than the full required UMAM credits; however the District will have to be able to purchase the remaining required credits from another property owner to be able to accept a partial credit proposal. All proposal(s) are subject to FDEP acceptance and approval. Their approval is expected to take up to ninety (180) days so all cost proposal(s) and options to purchase submitted must be valid through June 30, 2014.

III. GENERAL INSTRUCTIONS FOR THE PREPARATION AND SUBMISSION OF COST PROPOSAL(S) AND OPTION TO PURCHASE

III. 1. Issuing Office:

Florida Inland Navigation District
1314 Marcinski Road
Jupiter, FL 33477-9427
Telephone (561)627-3386
FAX (561)624-6480
Project Manager: Mark Crosley, Executive Director

III. 2 Time, Date, and Place Proposal(s) are Due:

Cost proposal(s) and option to purchase must be received **NO LATER THAN 1:00 P.M.** local prevailing time on January 14, 2014. Cost proposal(s) and option to purchase should be addressed or delivered to the issuing office.

CAUTION: A cost proposal and option to purchase received after the time specified for receipt will not be considered.

III. 3 Number of Purchases:

The District prefers to make one purchase of UMAM credits through this solicitation. However, the District reserves its rights to purchase the required credits from one or more property owners should it be in the District's best interest.

III. 4. Agreement Acceptance Period:

The District expects to exercise the option to purchase the UMAM credits approximately one-hundred eighty (180) days after receipt of the cost proposal(s) and option to purchase. All cost proposal(s) and option to purchase must remain valid until June 30, 2014.

III. 5. COST PROPOSAL

Property owners shall submit their cost proposal and option to purchase on Attachment B. Attachment B shall be accompanied by a location map, property boundary mapping or survey, and a narrative description of the property offered in the proposal. All FDEP/St. Johns Water River

Management District (SJRWMD) approvals or reviews and a UMAM of the property should be submitted as well, if they exist. The District will not reimburse any costs incurred by the responding firms in preparing proposal(s) in response to this request.

III. 6. PROPOSAL SELECTION

The District will select the cost proposal(s) and option to purchase that are determined by the District, in the District's sole judgment to meet the District's mitigation needs, and meet FDEP approval. While price is an important consideration, the selection of the cost proposal(s) and option to purchase may not be based solely on the lowest price per UMAM credit.

The District reserves the right to reject any and all cost proposal(s) and option to purchase, to waive minor irregularities or informally to negotiate certain provisions of the final agreement with a qualified property owner. During the evaluation process, the District reserves the right, where it may serve the District's best interest, to request additional information or clarifications from property owners, or to allow corrections of errors or omissions.

The District is under no obligation to exercise the selected option to purchase and reserves the right, in the District's sole judgment, to allow the option to expire without exercising the option.

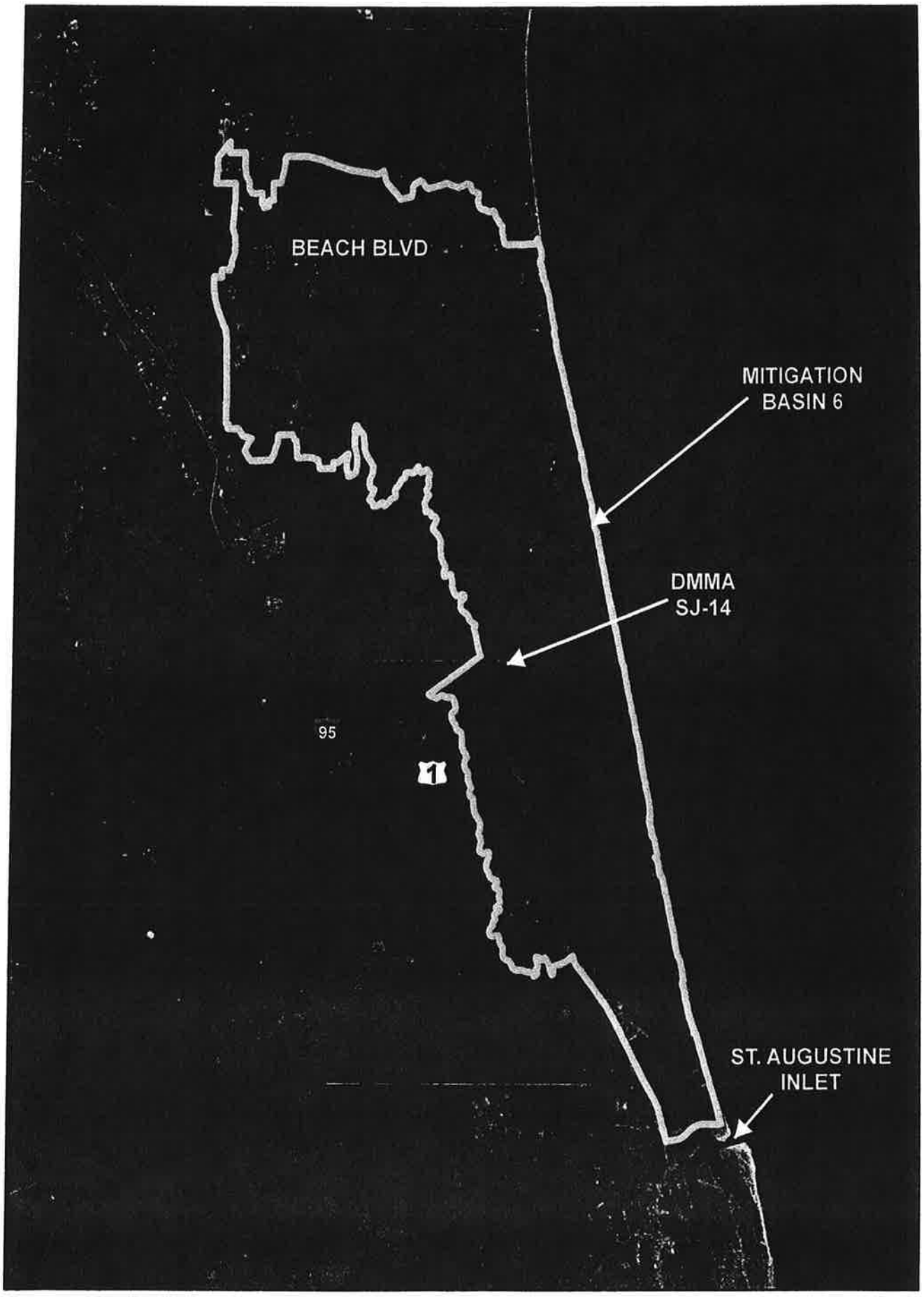
FLORIDA INLAND NAVIGATION DISTRICT

PURCHASE OF FRESHWATER MITIGATION CREDITS IN REGIONAL WATERSHED MITIGATION BASIN NUMBER 6, ST. JOHNS AND DUVAL COUNTIES, FLORIDA

January 14, 2014

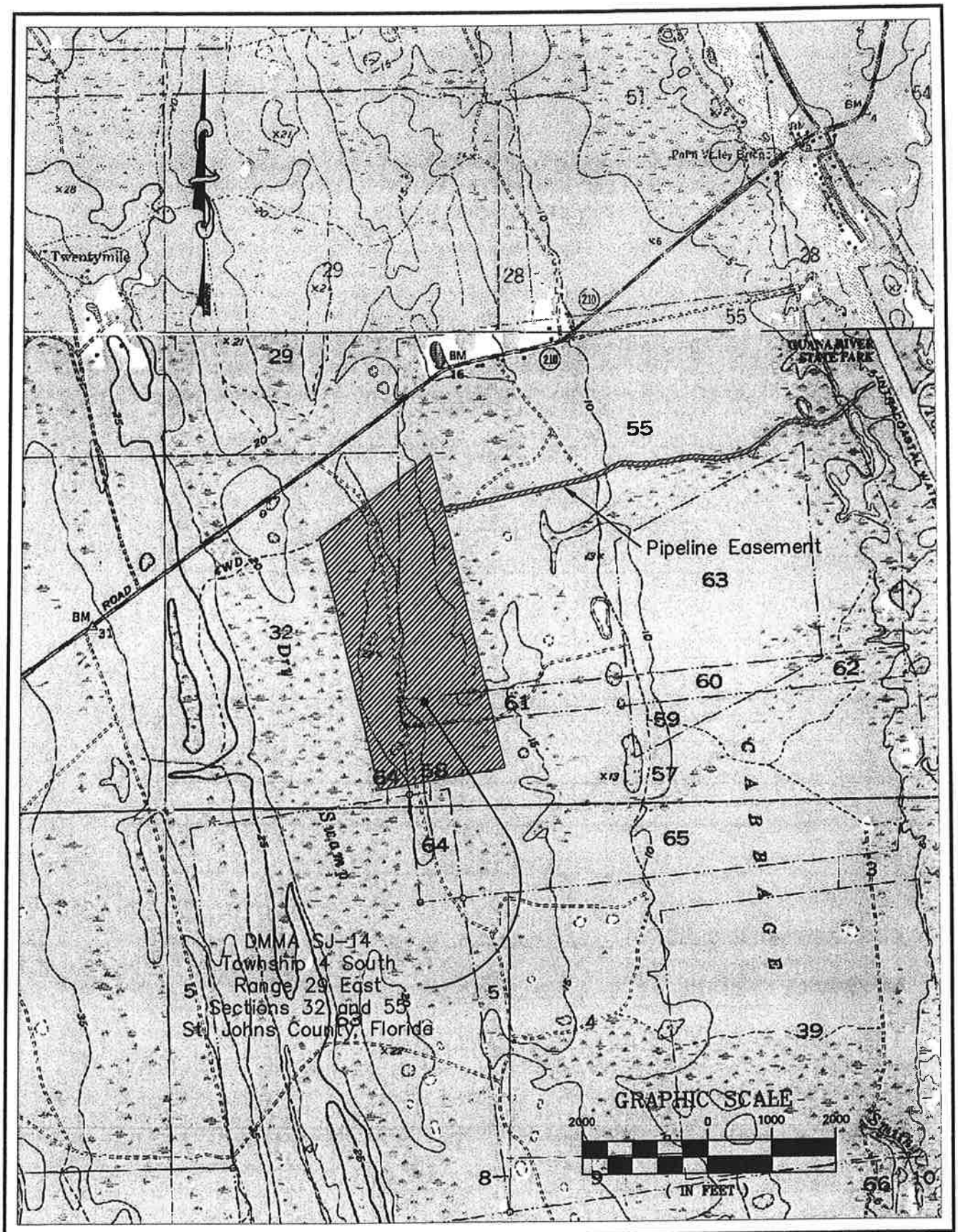
Bid List

NAME OF FIRM	PROJECT BID
_____	$_____
_____	$_____
_____	$_____
_____	$_____
_____	$_____



MITIGATION BASIN 6 BOUNDARY

ATTACHMENT B



TAYLOR ENGINEERING INC. 10151 DEERWOOD PARK BLVD BLDG 300, SUITE 300 JACKSONVILLE, FL 32256 CERTIFICATE OF AUTHORIZATION # 4815	FIGURE 1 LOCATION MAP FIND DMMA SJ-14 ST. JOHNS COUNTY, FLORIDA	PROJECT: C2009-014 DRAWN BY: SHEET: DATE: JULY 2009

ATTACHMENT C
FLORIDA INLAND NAVIGATION DISTRICT

PURCHASE OF FRESHWATER MITIGATION CREDITS IN REGIONAL WATERSHED MITIGATION BASIN NUMBER 6, ST. JOHNS AND DUVAL COUNTIES, FLORIDA

Cost Submittal Form

NAME OF FIRM:_____

ADDRESS:_____

_____

TELEPHONE:_____

REFERENCES: (Name, Address, Phone, Contact Person)

1._____

_____

_____

2._____

_____

_____

COST PER UMAM CREDIT $_____

NUMBER OF CREDITS _____

TOTAL PROJECT COST $_____

_____
Signature

_____
Title

SJ-14
RESTORATION ACTIONS
As of September, 2012

1. **Fine** - Paid

2. **Topographic Surveys** – Completed and submitted. The 2009 topographic survey, combined with the results of the Taylor Engineering and Oren Reedy, P.G. 50-ft grid soil data collection effort, indicated relatively few pockets of dredged sediment remaining in the spill area.

3. **UMAM Analysis** – Completed and approved for impact, restoration and one mitigation areas.

4. **Sediment Removal** - Sediment Remediation Plan completed and approved. No further removal expected if salinities levels continue to fall. Berm removal at county ballfields has been completed.

5. **Arsenic and Salinity Sampling** – Completed and approved. No remediation actions are required for minor elevations of arsenic and recommendation of natural attenuation for the elevated salinity levels accepted.

6. **Hydrologic Restoration**– Plan has been completed,approved, and built.

7. **Vegetative Survey** – Survey has been completed and approved.

8. **Restoration Planting** – On hold until salinities have been decreased below 0.6 ppt. Some test planting can occur if salinities fall below 0.8ppt.

9. **Nuisance/Exotic Removal** – Removal plan completed and will be implemented prior to restoration planting.

10. **Monitoring** – Salinity monitoring ongoing. Vegetation monitoring will initiate after restoration planting.

11. **Success Criteria**–On hold pending Restoration Planting and Nuisance/Exotic Removal

12. **Mitigation** – Two mitigation banks submitted for approval and only one approved at this time.

13. **Operation** – Changes to the Site Operation Plan have been drafted, submitted and accepted.

PART I – Qualitative Description
(See Section 62-345.400, F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number
Florida Inland Navigation District (FIND) SJ-14	N/A	Direct Impact Area

FLUCCs code	Further classification (optional)	Impact or Mitigation Site?	Assessment Area Size
Mixed Wetland Hardwoods (617)		Impact	22.41 acres

Basin/Watershed Name/Number	Affected Waterbody (Class)	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)
Tolomato River - HUC No. 03080201	Class III	None

Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands

The assessment area consists of lands owned by Florida Inland Navigation District and lands under a conservation easement to St. Johns River Water Management District. The project site is contiguous on the south and west sides to the Nocatee Greenway (a 6,736-acre tract of conservation land). The Greenway is contiguous on the southeast to the Nocatee Preserve (which is connected to the Guana River Marsh Aquatic Preserve). East of the conservation easement is Davis Park (county recreational park), east of Davis Park is Ponte Vedra High School and east of the high school is Marsh Harbor South Mitigation Area. The project site is bounded to the north by Nocatee Parkway which contains three 8' X 4' culverts that hydrologically connect wetlands on either side of the parkway as well as provide a wildlife corridor.

Assessment area description (Native Community Type - Optimal Condition)

The native community type most closely resembles Mixed Wetland Hardwoods (617) typically found in large and irregularly shaped basins not associated with rivers. This habitat contains vegetation such as *Acer rubrum, Ilex cassine, Liquidambar styraciflua, Nyssa sylvatica* var. *biflora, Gordonia lasianthus, Magnolia virginiana, Persea palustris, Fraxinus spp.Ulmus americana, Pinus* spp., *Quercus laurifolia, Quercus nigra, Quercus virginiana, Sabal palmetto,* and *Taxodium distichum.* Additionally, it may contain *Celtis laevigata*, *Magnolia grandiflora, Quercus michauxii, Rhapidophyllum hystrix, Myrica cerifera, Sabal minor, Cephalanthus occidentalis* and *Serenoa repens.*

Significant nearby features:

FIND dredged material management area directly to the west with Nocatee Greenway preservations lands further west, conservation lands to the south and the east, Nocatee Parkway to the north and the Nocatee Parkway wildlife crossing to the northeast.

Uniqueness pursuant to Ch 62-345.400(1)(f):

The project area is relatively unique in it's proximity to Nocatee Preserve, Nocatee Greenway and Guano-Tolomato Wildlife Management Area creating significant wildlife corridors and in it's proximity to Guana River Aquatic Preserve.

Functions:

Provides ephemeral or permanent water pools for wildlife while improving water quality and providing flood control. The structural and species diversity within the canopy layer supports one of the most productive and diverse habitats. The system supports recreational activities including hunting, hiking, camping and nature studies.

Mitigation for previous permit/other historic use:

A significant portion of the assessment area occurs within a conservation easement granted to the SJRWMD as part of St. Johns County's environmental resource permit to construct Davis Park.

Anticipated Wildlife Utilization:

Mammals: Bobcat, wood rat, white-tailed deer, rice rats, gray squirrel, raccoon and black bear. **Birds:** Cooper's hawk, red-shouldered hawk, herons, egrets, woodpeckers, ducks, swallow-tailed kite, Mississippi kite, warblers, wild turkey, wood stork and barred owl. **Herps:** cricket frog, cottonmouth snake, alligator, salamander, anole, ring-necked snake, skink and crayfish snake.

Anticipated Utilization by Listed Species:

A system of this type can support listed species such as the black bear (ST), wood stork (FE), white ibis(SSC), snowy egret (SSC), reddish egret (SSC), tricolored heron (SSC), limpkin (SSC) and little blue heron (SSC).

Observed Evidence of Wildlife Utilization:

Wood stork, great blue heron, white ibis, white egret, tricolored heron, snowy egret, downy woodpecker, pileated woodpecker, bald eagle, pigmy rattle snake, black racer, green anole, turtle, green tree frog, gambusa, alligator, possum, raccoon, deer, bobcat.

Additional relevant factors:

In an optimal condition, this regional 617 wetland will typically have 15-20 canopy tree species mixed throughout with only small areas of dominant or co-dominate canopy areas. Sparse to moderate areal coverage of shrubs and subcanopy trees create an open understory with only small areas of dense woody vegetation. Ferns and other shade tolerant herbaceous plants comprise the remaining groundcover vegetation.

Assessment conducted by:	Assessment date(s):
Eric Hickman, Guy Anglin and Donna Kendall	10/20/2010

PART II – Quantification of Assessment Area (impact or mitigation)
(See Sections 62-345.500 and .600, F.A.C.)

Site/Project Name	Application Number	Assessment Area Name or Number	Assessment Area Acreage
Florida Inland Navigation District (FIND) SJ-14	N/A	Direct Impact Area	22.41 acres
Impact or Mitigation	**Assessment conducted by:**	**Assessment date:**	
Impact	Hickman, Anglin, Kendall	10/20/2010	

Scoring Guidance	Optimal (10)	Moderate(7)	Minimal (4)	Not Present (0)
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface water functions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

		current	with
.500(6)(a) Location and Landscape Support	**PRE-IMPACT:** Positive: Nocatee Greenway preserved lands directly to the west and south of FIND property. Nocatee Preserve lands to the south and east of the subject site, a conservation easement covers a large portion of the assessment area and a mitigation area is east of the subject area as is the Guana Wildlife Management Area. Negative: Development has disturbed the habitat surrounding the assessment area. Immediately north of the assessment area is the Nocatee Parkway, (although it contains three 8' X 4' wildlife crossing culverts), a dredged material management area to the west, and Davis Park recreational facility east of the conservation easement. These features can block or hinder natural wildlife access and hydrologic flow to the assessment area. **POST-IMPACT:** Positive: See above Negative: See above. A dredged material slurry spill in September 2006 severely impacted the assessment area with the release of marine sediment and water. The release caused significant mortality of the canopy, subcanopy, and groundcover vegetation within the assessment area thereby severely impacting wildlife utilization with the surrounding landscapes. In addition to the direct impacts of the subject area, secondary impacts from the discharge of salt water resulted in substantial loss of vegetation in wetlands south and east of the assessment area.	7	6
.500(6)(b)Water Environment (n/a for uplands)	**PRE-IMPACT:** Positive: The Nocatee Greenway preserved lands directly to the west and south of FIND property in conjunction with Nocatee Preserve lands to the south and east of the subject site provided optimal water quantity and quality to both the assessment and surrounding areas. The site exhibited hydrology consistent with maintaining a healthy mixed hardwood wetland system. Negative: Immediately north of the assessment area is the Nocatee Parkway, although it contains three 8' X 4' culverts, the historic surface water flow from the north was altered. Additionally, Davis Park recreational facility east of the conservation easement also altered the historic surface water flow regime. The likely combined effects of these alterations has negatively impacted the historic and fully optimal hydroperiods. The DMMA to the west has also adversely altered the pre-development water quantity although the construction permit required wetland creation to offset these adverse impacts. These features likely limit or hinder wildlife utilization within the assessment area. **POST-IMPACT:** Positive: The Nocatee Greenway preserved lands directly to the west and south of FIND property in conjunction with Nocatee Preserve lands to the south and east of the subject site provide optimal water quantity and quality to both the assessment and surrounding areas. Negative: See above. The discharge completely displaced wetland hydrology within the assessment area by filling the mixed hardwood swamp with dredge spoil material and associated marine waters. Fine particulates within the spoil material have created a confining layer precluding water percolation and normal water flow regimes within the assessment area. Immediately after the spill, high salinity concentrations killed most freshwater vegetation and fauna within the assessment area. Initial recorded surface water salinities ranged from 3.3 to 17.4 ppt. Results of ground water well monitoring for February 2011 ranged from 0.5 to 2.1 ppt within this assessment area.	7	0
.500(6)(c)Community Structure 1. Vegetation and/or 2. Benthic Community	**PRE-IMPACT:** Positive: The assessment area consisted of a mature mixed wetland hardwood (617) community. The assessment area contained an optimal canopy, sub canopy, and ground cover structure for wildlife utilization. Species richness, composition, and relative abundance were optimal for a mixed wetland hardwood swamp. Canopy species included *Taxodium ascendens*, *Nyssa sylvatica* var. *biflora*, *Quercus laurifolia*, *Acer rubrum*, *Liquidambar styraciflua*, *Pinus elliottii*, *Sabal palmetto*, *Ulmus americana*, and *Quercus nigra*. Species such as *Ilex cassine*, *Taxodium ascendens*, *Cephalanthus occidentalis*, *Lyonia lucida*, *Canna flaccid*, *Chasmanthium nitidum*, and *Myrica cerifera* commonly occupied the understory. Negative: Ecotones and adjacent uplands were fire suppressed and some areas were planted in *Pinus elliottii* thereby limiting optimal wildlife utilization and plant species composition. **POST-IMPACT:** Positive: Some old growth *Taxodium ascendens* and *Sabal palmetto* have survived the discharge and are providing structure and seed source. Additionally, some areas contain intact ground cover structure such as hummocks and loop roots which, while dead, still provide partial function. Negative: The discharged slurry severely impacted the assessment area with the release of marine sediment and saline water. The release caused a near complete mortality of the canopy, subcanopy, and groundcover vegetation within the assessment area. Ecotones and adjacent uplands are fire suppressed and some areas are planted in *Pinus elliottii* thereby limiting optimal wildlife utilization and optimal plant species composition.	7	2

Score = sum of above scores/30 (if uplands, divide by 20)		If preservation as mitigation,	†Functional loss with full restoration
current	with	Preservation adjustment factor =	FL = delta x acres / t-factor = -7.769
0.700	0.267	Adjusted mitigation delta =	

Delta = [with-current]	† If restoration	† For restoration assessment areas	†Total Functional Gain
0.433	Time lag (t-factor) = 1.25	RFG = delta /(t-factor x risk) =	FG = RFG x acres = #####
	Risk factor =		

† Form 62-345.900(2), F.A.C. (effective date 02-04-2004)
This form has been modified to accommodate complete restoration of the subject site. Currently, the formulas of Chapter 62-345 F.A.C. are only capable of quantifying the loss of function (FL) for a permanent impact. This project is an enforcement matter and the impacts are temporary in nature as required by OGC No. 06-2359. The modifications to the formulas above have been completed for the purposes of enforcement resolution and are not intended for use on any future permitting projects.

06-2359

COPY

BEFORE THE STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION Complainant, vs. FLORIDA INLAND NAVIGATION DISTRICT, Respondent.	IN THE OFFICE OF SUBMERGED LANDS AND ENVIRONMENTAL RESOURCES OGC FILE NO. 06-2359

CONSENT ORDER FO# 09-0493

This Consent Order is entered into between the State of Florida Department of Environmental Protection ("Department"), and Florida Inland Navigation District ("Respondent") to reach settlement of certain matters at issue between the Department and Respondent.

The Department finds and the Respondent neither admits nor denies the following:

1. The Department is the administrative agency of the State of Florida having the power and duty to protect Florida's air and water resources and to administer and enforce Chapter 373, Part IV, and Chapter 403, Florida Statutes ("Fla. Stat.") and the rules promulgated and authorized thereunder, Title 62, Florida Administrative Code ("Fla. Admin. Code"). The Department has jurisdiction over the matters addressed in this Consent Order.

2. Respondent is a person within the meaning of Section 373.019(15), Fla. Stat.

3. Respondent is an independent special taxing district of the State of Florida created in Section 374.982, Fla. Stat. to conduct all activities necessary to comply with the requirements and conditions imposed by the Congress of the United States in the several acts authorizing and

directing the improvement and maintenance of the Intracoastal Waterway as provided in Section 347.984, Fla. Stat. The Respondent is authorized to contract directly for or enter into an agreement with the Jacksonville, Florida, United States Army Corps of Engineers ("USACE") district, to contribute toward the cost of several acts authorizing and directing the improvement, navigability and maintenance of the Intracoastal Waterway.

4. Respondent is the owner of the property located just south of Palm Valley Road, St. Johns County Property Appraiser Parcel Identification Number 068160 0010 ("Property"), Sections 32, 55, 57 and 61, Township 4 South, Range 29 East, St. Johns County as depicted on Exhibit A, attached hereto and incorporated herein.

5. St. Johns County is the owner of the property designated as St. Johns County Property Appraiser Parcel Identification Number 069630 0110 ("Adjacent Property"), as depicted on Exhibit B, attached hereto and incorporated herein.

6. SONOC Company LLC, is the owner of the property designated as St. Johns County Property Appraiser Parcel Identification Number 068050 0000 ("Adjacent Property East"), as depicted on Exhibit B, attached hereto and incorporated herein.

7. Respondent is the permittee of Environmental Resource Permit Number 0129248-001-EI ("Permit") which authorized the construction of a 105.8 acre diked containment basin for shoal material dredged from of the Atlantic Intracoastal Waterway. The containment basin known as the SJ-14 Dredged Material Management Area ("SJ-14") is located on the Property.

8. Dredge Enterprise, LLC is a dredging contractor of USACE that operated under an exemption verification to the USACE, Department File Nos. 55-239209-001-EE and 55-239213-001-EE, to conduct maintenance dredging of artificial reaches of the Intracoastal Waterway within St. Johns County and dispose of spoil material, in-part into SJ-14.

9. On September 14, 2006, the USACE notified the Department that Dredge Enterprise, LLC disconnected a return water decant pipeline from the weir outflow culvert at SJ-14. After the disconnection, slurried spoil material discharged from the weir outflow culvert for approximately twelve hours, resulting in unauthorized direct filling of approximately 23 acres of Mixed Wetland Hardwoods (FLUCC 617), *Taxodium acendens* (Pond Cypress FLUCC 621) and *Nyssa sylvatica* (Black Gum) swamp to an average depth of thirteen inches above natural grade as depicted on Exhibit C, attached hereto and incorporated herein. Additionally, secondary impacts resulted in the mortality of approximately 31 acres of *Taxodium acendens* (Pond Cypress FLUCC 621) and *Nyssa sylvatica* (Black Gum) swamp as depicted on Exhibit C, attached hereto and incorporated herein. Direct impacts from the fill event effected properties owned by the Respondent and St. Johns County. Secondary impacts from the fill event effected properties owned by SONOC Company LLC, and St. Johns County. A portion of the impacted property owned by the county is encumbered by a Conservation Easement granted to the St. Johns River Water Management District (SJRWMD). The Department finds Dredge Enterprise, LLC's above-described actions caused violations of Rule 62-343.050, Fla. Admin. Code and Section 373.430(1), Fla. Stat. The Department will initiate legal action against Dredge Enterprise, LLC for the unauthorized activities described above. The Department finds Respondent is also in violation of Rule 62-343.050, Fla. Admin. Code and Section 373.430(1), Fla. Stat. as the permittee under Environmental Resource Permit No. 0129248-001-EI, and as the owner of SJ-14.

10. Additionally, the Department finds Respondent:

(a) violated General Conditions 6, 7 and, Specific Conditions 12, 13, and 16 of Environmental Resource Permit No. 0129248-001-EI, a violation of Section 373.430(1)(b), Fla. Stat.; and

(b) installed a culvert at the perimeter ditch outfall without a valid permit from the Department, a violation of Section 373.430(1)(b), Fla. Stat.

Having reached a resolution of the matter Respondent and the Department mutually agree and it is,

ORDERED:

11. Within 45 days of the effective date of this Consent Order, Respondent shall pay the Department $57,551.00 in settlement of the matters addressed in this Consent Order. This amount includes $5,000.00 for costs and expenses incurred by the Department during the investigation of this matter and the preparation and tracking of this Consent Order. The civil penalties are apportioned as follows: $800.00 pursuant to Section 403.121(4)(c), Fla. Stat. for violation of Sections 373.430 and 403.161, Fla. Stat., and Chapter 62-343.050, Fla. Admin. Code, (two counts); $12,000.00 for violation of Sections 373.430 Fla. Stat. and 62-343.050, Fla. Admin. Code (six counts); and $39,751.00 for violation of Sections 373.430 and 403.161, Fla. Stat. (forty-five counts). Payment shall be made by cashier's check or money order. The instrument shall be made payable to the "Department of Environmental Protection" and shall include thereon the OGC number assigned to this Consent Order and the notation "Ecosystem Management and Restoration Trust Fund".

12. In lieu of making a cash payment of $52,551.00 in civil penalties as set forth in paragraph 11 above, Respondent may elect to off-set this amount by implementing an in-kind penalty project, which must be approved by the Department. An in-kind project must be either

an environmental enhancement or an environmental restoration project. The Department may also consider the donation of environmentally sensitive land as an in-kind project. The value of the in-kind penalty project shall be one and a half times the civil penalty off-set amount, which in this case is the equivalent of at least $78,826.50. If Respondent chooses to implement an in-kind project, Respondent shall notify the Department of its election by certified mail within 15 days of the effective date of this Consent Order. Notwithstanding the election to implement an in-kind project, payment of the remaining $5,000.00 in costs must be paid within 45 days of the effective date of the Consent Order.

13. If Respondent elects to implement an in-kind project as provided in paragraph 12, then Respondent shall comply with all of the requirements and time frames in Attachment A entitled In-Kind Projects.

14. Respondent shall implement the Restoration Actions attached hereto and incorporated herein as Attachment B in the manner and within the time frames specified therein.

15. With the exception of the activities described in the Restoration Actions, effective immediately and henceforth, Respondent shall not conduct any dredging, filling, or construction activities on or within the landward extent of waters of the state without first obtaining a valid Department permit or written notification from the Department that the activities appear to be exempt as proposed from Department permitting requirements; nor shall Respondent conduct any activities on state owned lands below the ordinary or mean high water lines without first obtaining a lease, easement, or other consent of use from the Department, if one is needed.

16. If any event, including administrative or judicial challenges by third parties unrelated to the Respondent, occurs which causes delay or the reasonable likelihood of delay, in complying with the requirements of this Consent Order, Respondent shall have the burden of

proving the delay was or will be caused by circumstances beyond the reasonable control of the Respondent and could not have been or cannot be overcome by Respondent's due diligence. Economic circumstances shall not be considered circumstances beyond the control of Respondent, nor shall the failure of a contractor, subcontractor, materialman or other agent (collectively referred to as "contractor") to whom responsibility for performance is delegated to meet contractually imposed deadlines be a cause beyond the control of Respondent, unless the cause of the contractor's late performance was also beyond the contractor's control. Upon occurrence of an event causing delay, or upon becoming aware of a potential for delay, Respondent shall notify the Department orally within 24 hours or by the next working day and shall, within seven calendar days of oral notification to the Department, notify the Department in writing of the anticipated length and cause of the delay, the measures taken or to be taken to prevent or minimize the delay and the timetable by which Respondent intends to implement these measures. If the parties can agree that the delay or anticipated delay has been or will be caused by circumstances beyond the reasonable control of Respondent, the time for performance hereunder shall be extended for a period equal to the agreed delay resulting from such circumstances. Such agreement shall adopt all reasonable measures necessary to avoid or minimize delay. Failure of Respondent to comply with the notice requirements of this Paragraph in a timely manner shall constitute a waiver of Respondent's right to request an extension of time for compliance with the requirements of this Consent Order.

17. Respondent shall allow all authorized representatives of the Department access to the property at reasonable times for the purpose of determining compliance with the terms of this Consent Order and the rules and statutes of the Department.

18. Entry of this Consent Order does not relieve Respondent of the need to comply with applicable federal, state or local laws, regulations or ordinances.

19. The terms and conditions set forth in this Consent Order may be enforced in a court of competent jurisdiction pursuant to Sections 120.69 and 373.129, Fla. Stat. Failure to comply with the terms of this Consent Order shall constitute a violation of Section 373.430, Fla. Stat.

20. Respondent is fully aware that a violation of the terms of this Consent Order may subject Respondent to judicial imposition of damages, civil penalties of up to $10,000 per day per violation and criminal penalties.

21. Respondent shall publish the following notice in a newspaper of daily circulation in St. Johns County, Florida. The notice shall be published one time only within 15 days after the effective date of the Consent Order.

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
NOTICE OF CONSENT ORDER

The Department of Environmental Protection gives notice of agency action of entering into a Consent Order with Florida Inland Navigation District pursuant to Section 120.57(4), Florida Statutes. The Consent Order addresses the unauthorized impacts to approximately 54 acres of wetlands and certain violations of Environmental Resource Permit No. 0129248-001-EI at the Dredge Material Management Area known as SJ-14 located just south of Palm Valley Road immediately west of Davis Park, St. Johns County, Florida. The Consent Order is available for public inspection during normal business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at the Department of Environmental Protection, 2600 Blair

Stone Road, Tallahassee, Florida 32399, and 7825 Baymeadows Way, Suite 200B, Jacksonville, Florida 32256.

Persons whose substantial interests are affected by this Consent Order have a right to petition for an administrative hearing on the Consent Order. The Petition must contain the information set forth below and must be filed (received) in the Department's Office of General Counsel, 3900 Commonwealth Boulevard, MS-35, Tallahassee, Florida 32399-3000, within 21 days of receipt of this notice. A copy of the Petition must also be mailed at the time of filing to the District Office named above at the address indicated. Failure to file a petition within the 21 days constitutes a waiver of any right such person has to an administrative hearing pursuant to Sections 120.569 and 120.57, Florida Statutes.

The petition shall contain the following information:

(a) The Department's Consent Order identification number and the county in which the subject matter or activity is located; (b) The name, address, and telephone number of each petitioner; the name, address, and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; (c) An explanation of how the petitioner's substantial interests will be affected by the Consent Order; (d) A statement of when and how the petitioner received notice of the Consent Order; (e) A statement of all material facts disputed by petitioner, if any; (f) A statement of the specific facts the petitioner contends warrant reversal or modification of the Consent Order; (g) A statement of which rules or statutes the petitioner contends require reversal or modification of the Consent Order; and (h) A statement of the relief sought by the petitioner, stating precisely the action petitioner wishes the Department to take with respect to the Consent Order.

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in this Notice. Persons whose substantial interests will be affected by any decision of the Department with regard to the subject Consent Order have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 21 days of receipt of this notice in the Office of General Counsel at the above address of the Department. Failure to petition within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Sections 120.569 and 120.57, Florida Statutes, and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon petition filed pursuant to Rule 28-106.205, Florida Administrative Code.

A person whose substantial interests are affected by the Consent Order may file a timely petition for an administrative hearing under Sections 120.569 and 120.57, Florida Statutes, or may choose to pursue mediation as an alternative remedy under Section 120.573, Florida Statutes, before the deadline for filing a petition. Choosing mediation will not adversely affect the right to a hearing if mediation does not result in a settlement. The procedures for pursuing mediation are set forth below.

Mediation may only take place if the Department and all the parties to the proceeding agree that mediation is appropriate. A person may pursue mediation by reaching a mediation agreement with all parties to the proceeding (which include the Respondent, the Department, and any person who has filed a timely and sufficient petition for a hearing) and by showing how the substantial interests of each mediating party are affected by the Consent Order. The agreement must be filed in (received by) the Office of General Counsel of the Department at 3900

Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida 32399-3000, within 10 days after the deadline as set forth above for the filing of a petition.

The agreement to mediate must include the following:

(a) The names, addresses, and telephone numbers of any persons who may attend the mediation;

(b) The name, address, and telephone number of the mediator selected by the parties, or a provision for selecting a mediator within a specified time;

(c) The agreed allocation of the costs and fees associated with the mediation;

(d) The agreement of the parties on the confidentiality of discussions and documents introduced during mediation;

(e) The date, time, and place of the first mediation session, or a deadline for holding the first session, if no mediator has yet been chosen;

(f) The name of each party's representative who shall have authority to settle or recommend settlement; and

(g) Either an explanation of how the substantial interests of each mediating party will be affected by the action or proposed action addressed in this notice of intent or a statement clearly identifying the petition for hearing that each party has already filed, and incorporating it by reference.

(h) The signatures of all parties or their authorized representatives.

As provided in Section 120.573, Florida Statutes, the timely agreement of all parties to mediate will toll the time limitations imposed by Sections 120.569 and 120.57, Florida Statutes, for requesting and holding an administrative hearing. Unless otherwise agreed by the parties, the mediation must be concluded within sixty days of the execution of the agreement. If

mediation results in settlement of the administrative dispute, the Department must enter a final order incorporating the agreement of the parties. Persons whose substantial interests will be affected by such a modified final decision of the Department have a right to petition for a hearing only in accordance with the requirements for such petitions set forth above, and must therefore file their petitions within 21 days of receipt of this notice. If mediation terminates without settlement of the dispute, the Department shall notify all parties in writing that the administrative hearing processes under Sections 120.569 and 120.57, Florida Statutes, remain available for disposition of the dispute, and the notice will specify the deadlines that then will apply for challenging the agency action and electing remedies under those two statutes.

22. The Department hereby expressly reserves the right to initiate appropriate legal action to prevent or prohibit any violations of applicable statues, or the rules promulgated thereunder that are not specifically addressed by the terms of this Consent Order.

23. The Department, for and in consideration of the complete and timely performance by Respondent of the obligations agreed to in this Consent Order, hereby waives its right to seek judicial imposition of damages or civil penalties for alleged violations addressed in this Consent Order.

24. Respondent acknowledges and waives its right to an administrative hearing pursuant to Sections 120.569 and 120.57, Florida Statutes, on the terms of this Consent Order. Respondent acknowledges its right to appeal the terms of this Consent Order pursuant to Section 120.68, Florida Statutes, and waives that right upon signing this Consent Order.

25. No modifications of the terms of this Consent Order shall be effective until reduced to writing, executed by both Respondent and the Department, and clerked.

26. All submittals and payments required by this Consent Order to be submitted to the Department shall be sent to the Florida Department of Environmental Protection, Donna Kendall, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400.

27. In the event of a sale or conveyance of the Property, if all of the requirements of this Consent Order have not been fully satisfied, Respondent shall, at least 30 days prior to the sale or conveyance of the property, (1) notify the Department of such sale or conveyance and (2) provide a copy of this Consent Order with all attachments to the new owner. The sale or conveyance of the Property shall not relieve the Respondent of the obligations imposed in this Consent Order.

28. This Consent Order is a settlement of the Department's civil and administrative authority arising under Florida law to resolve the matters addressed herein. This Consent Order is not a settlement of any criminal liabilities which may arise under Florida law, nor is it a settlement of any violation which may be prosecuted criminally or civilly under federal law.

29. This Consent Order is a final order of the Department pursuant to Section 120.52(7), Florida Statutes, and it is final and effective on the date filed with the Clerk of the Department unless a Petition for Administrative Hearing is filed in accordance with Chapter 120, Florida Statutes. Upon the timely filing of a petition this Consent Order will not be effective until further order of the Department.

[THE REMAINDER OF THIS PAGE IS INTENTIONALLY BLANK]

FOR THE RESPONDENT
FLORIDA INLAND NAVIGATION DISTRICT

5/14/09
Date

David K. Roach
Executive Director

DONE AND ORDERED this 19th day of May, 2009,
in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION

Mimi Drew
Deputy Secretary

Filed, on this date, pursuant to Section 120.52, F.S., with the designated Department Clerk, receipt of which is hereby acknowledged.

Mary L. Wilson
Clerk – Deputy

5-19-09
Date

cc: Lea Crandall, Agency Clerk
Mail Station 35

ATTACHMENT A
IN-KIND PROJECTS

1. Within 60 days of the effective date of this Consent Order, Respondent shall submit, by certified mail, a detailed in-kind project proposal to the Department for evaluation. The proposal shall include a summary of benefits, proposed schedule for implementation and documentation of the estimated costs which are expected to be incurred to complete the project. These costs shall not include those incurred in developing the proposal or obtaining approval from the Department for the in-kind project.

2. If the Department requests additional information or clarification due to a partially incomplete in-kind project proposal or requests modifications due to deficiencies with Department guidelines, Respondent shall submit, by certified mail, all requested additional information, clarification, and modifications within 15 days of receipts of written notice.

3. If upon review of the in-kind project proposal, the Department determines that the project cannot be accepted due to a substantially incomplete proposal or due to substantial deficiencies with minimum Department guidelines; Respondent shall be notified, in writing, of the reason(s) which prevent the acceptance of the proposal. Respondent shall correct and redress all of the matters at issue and submit, by certified mail, a new proposal within 30 days of receipt of written notice. In the event that the revised proposal is not approved by the Department, Respondent shall make cash payment of the civil penalties as set forth in paragraph 11 of the Order, within 30 days of Department notice.

4. Within 120 days of the effective date of this Consent Order, Respondent shall obtain approval for an in-kind project from the Department. If an in-kind project proposal is not approved by the Department within 120 days of the effective date of this Consent Order, then Respondent shall make cash payment of the civil penalties as set forth in paragraph 11 of the Order, within 30 days of Department notice.

5. Within 180 days of obtaining Department approval for the in-kind proposal or in accordance with the approved schedule submitted pursuant to paragraph 1 above, Respondent shall complete the entire in-kind project.

6. During the implementation of the in-kind project, Respondent shall place appropriate sign(s) at the project site indicating that Respondent's involvement with the project is the result of a Department enforcement action. Respondent may remove the sign(s) after the project has been completed. However, after the project has been completed Respondent shall not post any sign(s) at the site indicating that the reason for the project was anything other than a Department enforcement action.

7. In the event, Respondent fails to timely submit any requested information to the Department, fails to complete implementation of the in-kind project or otherwise fails to comply with any provision of this paragraph, the in-kind penalty project option shall be

ATTACHMENT B
RESTORATION ACTIONS

The purpose of the following actions is to restore the areas impacted by the unauthorized activities described in paragraphs 9 and 10 of this Order, restore the areas impacted by the operation of SJ-14 and to acquire pertinent elevation and salinity data to ensure appropriate species placement and survival within the subject areas.

Within 60 days of the effective date of this Order, Respondent shall complete the following Topographic Surveys and Uniform Mitigation Assessment Method "UMAM" Analysis:

Topographic Surveys

1. Respondent shall conduct a topographic survey through the direct impact areas utilizing systematic linear transects as depicted on Exhibit D1. Transects shall be spaced 100 feet apart (north to south).

2. Respondent shall conduct a topographic survey through the secondary impact areas and into the adjacent upland area utilizing linear transects in the approximate locations depicted on Exhibit D2. This survey shall be utilized to coordinate ground elevations with existing wetland vegetative characteristics and composition to assist in the development of the required planting plan.

3. All surveys and maps or reports with elevation data shall indicate the datum and a description of the benchmark(s) upon which the survey is based. Field measured control for elevation information shown upon maps or reports shall be based on a level loop or closure to a second benchmark. Closure in feet must be accurate to a standard of plus or minus 0.05 ft. times the square root of the distance in miles.

Horizontal Feature Accuracy:

(a) All surveys and maps or reports expressing or displaying features in a publicly published coordinate system shall indicate the coordinate datum and a description of the control point upon which the survey is based.

(b) The accuracy of control survey data shall be verified by redundant measurements or traverse closure. All control measurements shall achieve the following closures: Commercial/High risk Linear: 1 foot in 10,000; Suburban: Linear: 1 foot in 7,500; Rural: Linear: 1 foot in 5,000 feet.

(c) When statistical procedures are used to calculate survey accuracies, the maximum acceptable positional tolerance, based upon the 95% confidence level, should meet the equivalent relative distance standards set forth in b. above.

(d) All maps or reports of surveys produced and delivered with digital coordinate files must contain a statement to the effect of: "This map is intended to be displayed at a scale of 1/___ or smaller".

UMAM Analysis

4. Respondent shall complete a UMAM analysis of the direct and secondary impact areas. The Respondent and the Department recognize that they have each identified different boundaries of the impact areas. To resolve these differences, the Respondent will flag the areas of difference in the field and the Department and Respondent will review the flagged areas together. The Department will then make a final determination of the impact area boundaries which will be used for the UMAM. The Department shall review the UMAM scores submitted by the Respondent and determine the amount of mitigation necessary pursuant to Rule 62-345.300, Fla. Admin. Code.

Sediment Removal

5. Within 100 days of the effective date of this Order, Respondent shall submit a "*Sediment Remediation Plan*" for Department review and approval. The plan shall include complete removal of the temporary berm west of Davis Park and the removal, as necessary, of sediments remaining from the discharge and initial restoration activities. The Respondent has proposed to develop this plan by comparing historic topographic surveys with the existing condition topographic survey required by Paragraph 1 above. Respondent shall identify areas with excess sediment that may be problematic to the survival of the restoration plantings required below. The plan shall require hand removal of sediments around existing hummocks and where there are small amounts of sediment proposed for removal. Respondent may implement mechanical removal of large amounts of sediment provided that a minimum 30 foot protective radius from machinery operation/staging, etc. is maintained around all living trees. Respondent shall implement the Sediment Remediation Plan upon Department approval, within the timeframes specified therein.

The Sediment Remediation Plan shall also include:

(a) Areas proposed for sediment removal shall be clearly marked in the field for Department Wetland Evaluation and Delineation Section ("WEDS") approval and for the duration of sediment removal activities.

(b) Best management practices shall be installed to ensure the containment of the subject sediment, compliance with Chapter 62-302, Fla. Admin. Code and to delineate the appropriate work area.

(c) Sediments removed shall either be deposited into SJ-14 or onto a Department approved, offsite location.

(d) Approximate timeframes for completion of sediment removal activities.

(e) Identify areas proposed for mechanical removal of sediment.

Arsenic and Salinity Sampling

6. Within 75 days of the completion of sediment removal, Respondent shall submit for Department review and approval, the results of the sampling sediment testing required below.

7. Respondent shall conduct arsenic testing of sediment within the areas previously identified as exceeding EPA Region 9 standards within the submittal entitled, *Evaluation of Sediment and Surface Water Quality SJ-14 Site Palm Valley, Florida,* received by the Department on November 29, 2006. Results of this sampling shall be compared to the guidance document entitled "*A Guide To The Interpretation of Metal Concentrations in Estuarine Sediments*" (http://www.dep.state.fl.us/waste/quick_topics/publications/documents/sediment/estuarine.pdf). Sediments that exceed the natural limits of arsenic pursuant to the above document shall be removed and placed into SJ-14 or onto a Department approved, offsite location.

8. Respondent shall conduct a salinity study through the direct impact areas utilizing systematic linear transects as depicted on Exhibit D1. Soil samples shall be collected every 90 feet along the topographic transects described in paragraph 1 above. Respondent may elect to initially have every other sample analyzed by the lab. If this initial analysis does not reveal any indication of salinity enrichment that may be problematic to the survival of the restoration plantings required below then no further analyses shall be required. If the initial analysis reveals problematic salinity enrichment, Respondent shall have remaining soils analyzed by the lab. Soils that exceed 0.6 ppt shall be removed and placed into SJ-14 or onto a Department approved, offsite location. Respondent shall submit a final grade as-built survey within 30 days of completion of all soil excavation required by paragraphs 7 and 8.

9. Respondent shall conduct a salinity study through the secondary impact areas at the approximate locations depicted on Exhibit D2.

Hydrologic Restoration

10 Within 45 days of Department approval of the *Sediment Remediation Plan* required above, Respondent shall submit a "*Hydrologic Restoration Plan*" for Department review and approval. This plan shall require the removal of material added to improve the pipeline access road west of Davis Park. The plan shall also include the installation of culverts under the subject access road. This culvert design shall allow surface water flow between the wetlands located north and south of the access road. The plan shall contain engineer signed, sealed plans with associated drawings (plan and cross sectional views) and supporting calculations for the installation of culverts. The plan shall also contain the following:

(a) Areas proposed for work shall be clearly marked in the field for Department approval and for the duration of the hydrologic restoration process.

(b) Best management practices shall be installed to ensure the containment of the subject material, compliance with Chapter 62-302, Fla. Admin. Code and to delineate the appropriate work area.

(c) Sediments removed shall either be deposited into SJ-14 or onto a Department approved, offsite location.

(d) Approximate timeframes for completion of the hydrologic restoration activities.

11. Respondent shall implement the Hydrologic Restoration Plan upon Department approval, within the timeframes specified therein.

Vegetative Survey

12. Respondent shall conduct a tree survey to identify all surviving trees with a 4 inch or greater diameter at breast height (DBH) within the direct impact areas depicted on Exhibit D1. Respondent shall conduct the tree survey during the months of July or August 2009 and shall collect the following information for each identified tree:

(a) Location (horizontal coordinates);

(b) Species

13. Respondent shall conduct a tree survey to identify all surviving trees with a 4 inch or greater DBH within the secondary impact areas depicted on Exhibit D2. Respondent shall conduct the tree survey during the months of July or August 2009 and shall collect the following information for each identified tree:

(a) Location (horizontal coordinates);

(b) Species

14. Respondent shall conduct a tree survey to identify all dead trees with a 4 inch or greater DBH along the specified transects within the secondary impact areas depicted on Exhibit D2. Respondent shall conduct the tree survey during the months of July or August 2009 and shall collect the following information for each identified tree:

(a) Location (horizontal coordinates);

(b) Species; and

(c) Ground elevation of any dead tree greater than 4 inches DBH along the specified transects within the secondary impact areas depicted on Exhibit D2.

The results of the surveys required by paragraphs 12, 13 and 14 shall be submitted for Department review and approval within 15 days of completion and the results shall be utilized during the planting phase to match appropriate species with specific elevations and planting zones.

Restoration Planting

15. ***Direct Impact Area:*** Within 30 days of Department approval of the *Sediment Remediation Plan,* Respondent shall submit a restoration planting plan for the direct impact areas ("*Direct Impact Planting Plan*") for approval by WEDS staff. The *Direct Impact Planting Plan* shall incorporate the requirements below and shall categorize the direct impact area into four distinct planting zones (low, middle, high and upland) based on elevation data and the conditions of WEDS established reference wetlands. Respondent has requested flexibility in the planting plan outlined below on the basis of plant disease and species availability. All documentation in support of any proposed plant substitution shall be sent to WEDS for review and approval. Economic interests shall not be a basis for plant substitution. The categorization and physical demarcation of all planting zones shall be reviewed and approved by WEDS. Respondent shall implement the Direct Impact Planting Plan within the timeframes specified therein (all plantings shall be conducted during fall-winter 2009). In order to ensure survival of the restoration plantings, installation shall not occur until soil salinities have been reduced to 0.6 ppt or less within the planting area. Respondent and the Department may mutually agree upon a test planting area or phased planting program when salinities have been reduced to 0.8 ppt or less in the planting area. These activities shall be subject to adaptive management techniques approved by WEDS staff. Final success shall be based on WEDS established reference wetlands (to be identified after execution of this Order) and conditions as defined below.

16. Respondent shall install *Taxodium ascendens* (Pond Cypress) and *Nyssa sylvatica var. biflora* (Black Gum) in equal percentages within the low planting zone of the direct impact area.

17. Respondent shall install *Magnolia virginiana* (Sweetbay Magnolia), *Fraxinus pennsylvanica* (Green Ash), and *Quercus laurifolia* (Swamp Laurel Oak) in equal percentages within the middle planting zone of the direct impact areas.

18. Respondent shall install *Celtis laevigata* (Hackberry), *Ulmus americana* (American Elm), and *Acer rubrum* (Red Maple), *Gordonia lasianthus* (Loblolly bay), *Ilex cassine* (Dahoon Holly), and *Persea palustris* (Swamp Bay) in equal percentages within the high planting zone and the ecotones of the direct impact areas.

19. Upland Areas shall be planted with appropriate bare root tree and ground cover species on 5-10 foot centers. Species selected for installation shall be approved by WEDS staff and shall be dependent on current and proposed land management practices (i.e. prescribed fire frequency).

20. Respondent shall ensure that planted species distribution is mixed within the appropriate zones so as to avoid monocultures of any tree, sub-canopy and/or shrub species.

21. Respondent shall install the above specified species in the following configuration:

(a) Hummocks with living trees shall be planted with two sub-canopy trees or shrub species as identified in (c) and (d) below;

(b) Hummocks with dead trees shall be planted with two bareroot trees of appropriate species (as specified in paragraphs 8-10) per dead tree and shall be planted with two sub-canopy trees or shrub species as identified in (c) and (d) below;

(c) Sub-canopy tree species to be installed as required above shall include equal percentages of the following: *Ilex cassine, Ilex myrtifolia, Leucothoe racemosa* and *Cornus foemina.*

(d) Shrub species to be installed as required above shall include equal percentages of the following: *Vaccinium corymbosum, Itea virginica, Clethra alnifolia, Aronia arbutifolia, Cephalanthus occidentalis, Lyonia lucida* and *Leucothoe axillaris.*

(e) Low planting zone *Typha spp.* areas shall be treated with appropriate herbicide prior to planting and shall be planted with 5-6 foot tall container trees (as specified above) on 5-10 foot centers with some artificial hummock creation as identified in the field by WEDS staff.

(f) Middle planting zone *Typha spp.* areas shall be treated with appropriate herbicide prior to planting and shall be planted with appropriate species (as specified above), 2-3 foot tall container trees on 5-10 foot centers

(g) High planting zone and wetland/upland ecotone areas shall be planted with bare root trees (as specified above) on 5-10 foot centers.

22. ***Secondary Impact Area:*** Within 30 days of Department approval of the *Sediment Remediation Plan,* Respondent shall submit a restoration planting plan for the secondary impact areas ("*Secondary Impact Planting Plan*") for approval by WEDS staff. The *Secondary Impact Planting Plan* shall be comprised of late successional hardwood plant species and shall incorporate the requirements of this Consent Order. Respondent shall implement the Secondary Impact Planting Plan within the timeframes specified therein (all plantings shall be conducted during fall-winter 2009). In order to ensure survival of the restoration plantings, installation shall not occur until soil salinities have been reduced to 0.6 ppt or less within the planting area. Respondent and the Department may mutually agree upon a test planting area or phased planting program when salinities have been reduced to 0.8 ppt or less in the planting area. These activities shall be subject to adaptive management techniques approved by WEDS staff. Final success shall be based on WEDS established reference wetlands (to be identified after execution of this Order) and conditions as defined below.

23. Respondent shall install trees of the appropriate bareroot species as approved by WEDS staff, on hummocks and within open areas on 5-10 foot centers.

24. Respondent shall fell identified dead trees as directed in the field by WEDS staff to create habitat structure with the impact ground covers areas.

25. Respondent shall fell dead trees within the secondary impact area that may pose a risk of falling onto recreational areas of Davis Park.

Nuisance/Exotic Removal

26. Respondent shall conduct nuisance/exotic species surveys and removal prior to the above specified planting and semiannually for years one through five and annually for years six through ten. Removed species shall be disposed of in an appropriate manner offsite. Reports shall be submitted to the Department within 30 days of the survey. Reports shall contain the following:

(a) Identification of nuisance/exotic species;

(b) Date of survey/removal/eradication event;

(c) Mode of removal/eradication;

(d) Location and percent cover of the target species at the time of treatment.

Monitoring

27. Respondent shall conduct monitoring of the direct and secondary impact areas to ensure the success of the restoration actions. Respondent shall establish a sufficient number of sampling biometrics to produce adequate data for a statically valid analysis of (at a minimum) the following parameters for each of the restoration areas:

(a) Nuisance/exotic coverage, species and distribution;

(b) Survival/mortality by species and distribution of all installed vegetation;

(c) Areal coverage by species and distribution by species of all installed vegetation;

(d) Coverage and distribution by species of naturally recruited ground cover.

28. Respondent shall submit a "Time Zero Baseline Monitoring Report" within 30 days of completion of the above Restoration Actions and the report shall include the criteria contained in paragraph 27 above and the following:

(a) Date the planting was completed;

(b) Color photographs to provide an accurate representation of each restoration area. The photographs shall be taken from fixed reference points and directions which are shown on a scaled plan view drawing;

(c) A table depicting numbers, spacing, and sizes (including tree height) of each species planted;

(d) Data documenting the hydrologic regime by planting area (i.e. low, middle, high and upland) relating to seasonal high ground water elevation, ordinary high water elevations, and normal pool elevations;

(e) Description of the pertinent climatological conditions preceding the monitoring event;

(f) Photocopy of the field notes depicting the raw data collected.

29. Subsequent Restoration Monitoring of the criteria contained in the paragraphs above shall occur semiannually for years one and two and annually for years three through five. Reports shall be submitted to the Department within 15 days of completion of the monitoring event.

Success Criteria

The Respondent acknowledges its obligation to fully restore the subject areas as required by this Order and as defined below.

30. The Restoration Actions described above shall be deemed successful when the following conditions are achieved:

(a) *Typha spp.* areal coverage does not preclude survival, expected growth and natural recruitment of any planted species;

(b) Nuisance/exotics species excluding *Typha spp.* occupies less than 3 percent of the total cover of the subject areas with no more than 5 percent in any 0.10 acre area;

(c) Survival of total number of planted species of the subject areas is no less than 80 percent with no more than 30 percent mortality in any 0.10 acre area by species or by area;

(d) Planted canopy trees have an average minimum height of 8 feet;

(e) Areal coverage of canopy species is 40 percent with no 0.10 acre area less than 10 percent. In addition, trees must exhibit healthy color and vigorous growth consistent with the species;

(f) Desirable wetland species shall be reproducing naturally in the ground, shrub, sub-canopy and canopy stratum;

(g) The vegetation monitoring data for the subject wetland areas indicates not less than 95 percent of the vegetative cover contains the listed plant species of Chapter 62-340, Fla. Admin. Code;

(h) The vegetative composition and structure found in the restoration wetland areas exhibits a strong similarity to that found in the Department approved reference wetlands;

(i) The success criteria above has been continuously met for a period of at least two years, without intervention in the form of irrigation or replanting of desirable vegetation, removal of undesirable vegetation has not occurred for a period of at least one year, and the area has been inspected by Department staff and determined to be within the landward extent of surface waters and wetlands of the State, pursuant to Chapter 62-340, Fla. Admin. Code.

31. The responsibility to assess if the restoration is meeting the Order-specified success criteria shall not fall solely on the Department. In the event the Respondent becomes aware restoration is not meeting the success criteria (based on either site observations, review of monitoring reports, or Department notification), the Respondent shall submit an alternative restoration plan within 30 days of identification, to the Department for review and approval. The Respondent shall implement the alternative restoration plan no later than 60 days after receiving Department approval.

32. Failure of the Department to notify the Respondent of restoration failure does not waive the restoration success criteria as defined in paragraph 30 above.

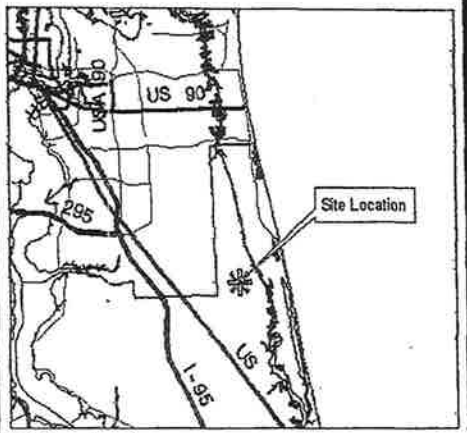
Mitigation

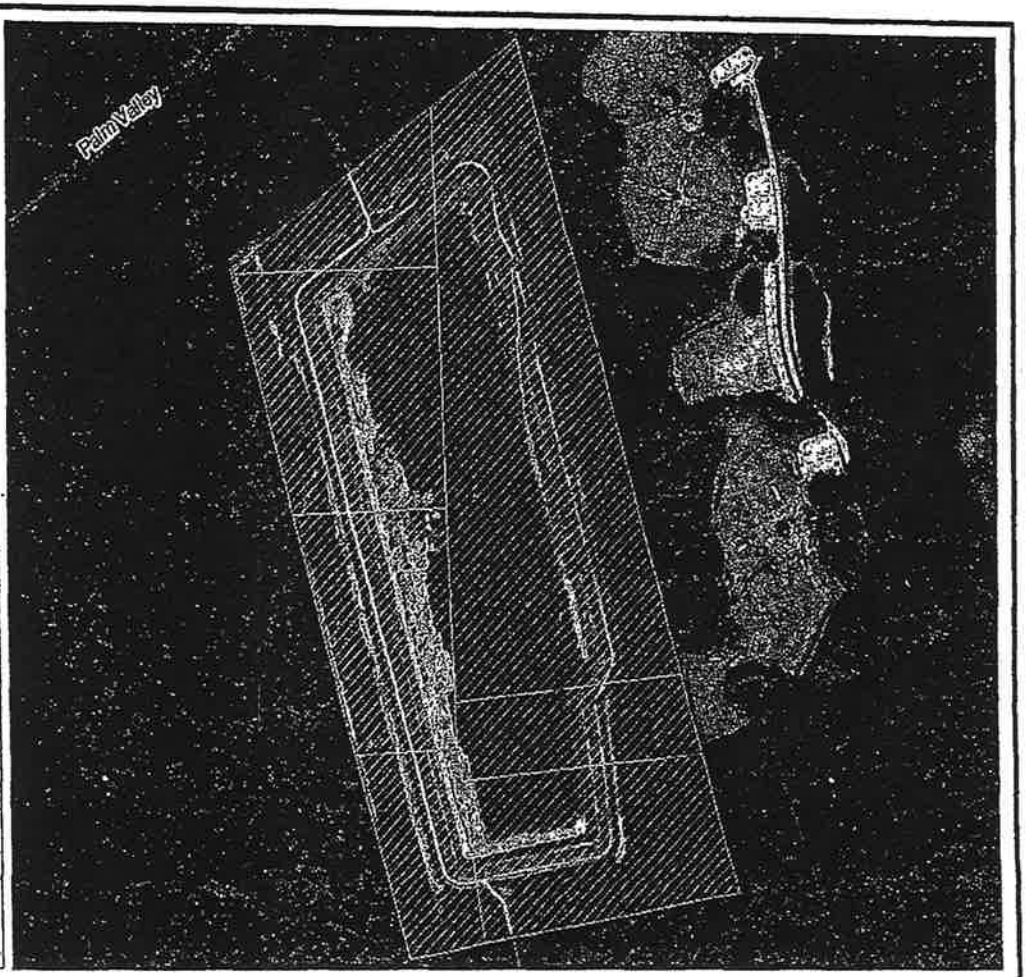
33. Respondent shall submit a "*Mitigation Plan*" for Department review and approval within 60 days of Department approval of the UMAM Analysis required by paragraph 4 above. This plan shall be designed to offset the functional loss of the impacted (direct and secondary) areas and shall consist of the creation of isolated wetlands just north of SJ-14 or other Department approved project(s). The Respondent shall provide the necessary supporting information on the impact and proposed mitigation areas as required by Chapter 62-345, Fla. Admin. Code for verification by the Department and for the Department to apply the assessment method to determine the amount of mitigation necessary to offset the impacts. If the Department requests additional information or clarification due to a partially incomplete plan or requests modifications due to deficiencies with Department guidelines, Respondent shall submit, by certified mail, all requested additional information, clarification, and modifications within 15 days of receipts of written notice. Respondent shall complete the mitigation construction, planting and time zero report within the time frames specified in the approved *Mitigation Plan*. Respondent may have the option of purchasing mitigation credits in lieu of onsite mitigation.

Operation

34. Respondent shall submit an engineer, signed/sealed "*SJ-14 Modification Plan*" for Department review and approval within 180 days of the effective date of this Order. This plan shall contain proposed SJ-14 structural and operational modifications, designed to eliminate additional salinity impacts to ground and surface waters and surrounding wetlands during future dredge spoil disposal events as provided in the *March 2000 Dredge Material Management Area Construction Palm Valley Site (SJ-14) Intracoastal Waterway St. Johns County, Florida, Environmental*

Assessment, from the U.S. Army Corps of Engineers, Jacksonville District. These modifications may include lining SJ-14 to prevent horizontal migration of dredge return water and/or, containment of perimeter ditch discharge. Additionally, the plan shall include proposed maximum rates of discharge into SJ-14 to ensure adequate residence time/treatment of dredge spoil. If the Department requests additional information or clarification due to a partially incomplete plan or requests modifications due to deficiencies with Department guidelines, Respondent shall submit, by certified mail, all requested additional information, clarification, and modifications within 15 days of receipts of written notice. Respondent shall complete the pertinent remedial activities necessary to ensure the success of these Restoration Actions within the time frames specified in the approved *SJ-14Modification Plan.* Environmental Resource Permit No. 0129248-001-EI shall be modified by the Department to include the approved SJ-14 Modification Plan.





Aerial Photograph Date: 2004

Florida Inland Navigation District
OGC No. 06-2359

Legend

FIND_Property

Exhibit A

Site Location Map

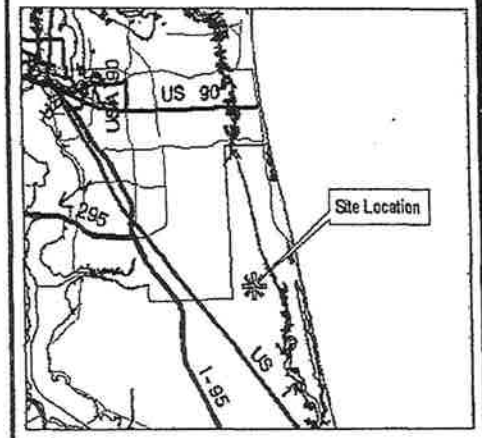
Site Inspection Date: October 11, 2006

Date drawn: October 3, 2006

Drawn By: Connie Mendell, Environmental Manager

Note: This exhibit was prepared using GIS data provided by various sources that may include but are not limited to federal, state, district, and local agencies. FDEP does not warrant data provided by other sources for accuracy or for any particular use that may require accurate information. This map is for informational purposes only and should not be substituted for a survey.

Florida Department of Environmental Protection



0 1.5 3 6 9 Miles

0 170 340 680 1,020 1,360 Feet

Aerial Photograph Date: 2004

Florida Inland Navigation District
OGC No. 06-2359

Legend

St. Johns County & SONOC Company, LLC Property

Exhibit B

Site Location Map

Site Inspection Date: October 25, 2006

Date drawn: April 2, 2007

Drawn By: Connie Kendall, Environmental Manager

Note: This exhibit was prepared using GIS data provided by various sources that may include but are not limited to federal, state, district, and local agencies. FDEP does not warrant data provided by other sources for accuracy or for any particular use that may require accurate information. This map is for informational purposes only and should not be substituted for a survey.

Florida Department of Environmental Protection

0 180 360 720 1,080 1,440
Feet

Aerial Photograph Date: 2008

Florida Inland Navigation District

OGC No. 06-2359

Legend

Direct Impacts (22.84 ac.)

Secondary Impacts (30.69 ac.)

Exhibit C

Impact Map

Site Inspection Date(s): November 5, 2020 and March 11, 2021

Date Created: March 22, 2021

Drawn By: Donna Kendall, Environmental Specialist

Note: This exhibit was prepared using GIS data provided by various sources that may include but are not limited to federal, state, district, and local agencies. FDEP does not warrant data provided by other sources for accuracy or for any particular use that may require accurate information. This map is for informational purposes only and should not be substituted for a survey.

Florida Department of Environmental Protection

0 112.5 225 450 675 900
Feet

Aerial Photograph Date: 2008

Florida Inland Navigation District

OGC No. 06-2359

Legend

- Direct Impacts (22.84 ac.)
- Secondary Impacts (30.69 ac.)
- Elevation Transects

Salinity shall be sampled every 90 feet along Elevation Transects as required by OGC 06-2359

Exhibit D 1

Northern Sampling Map

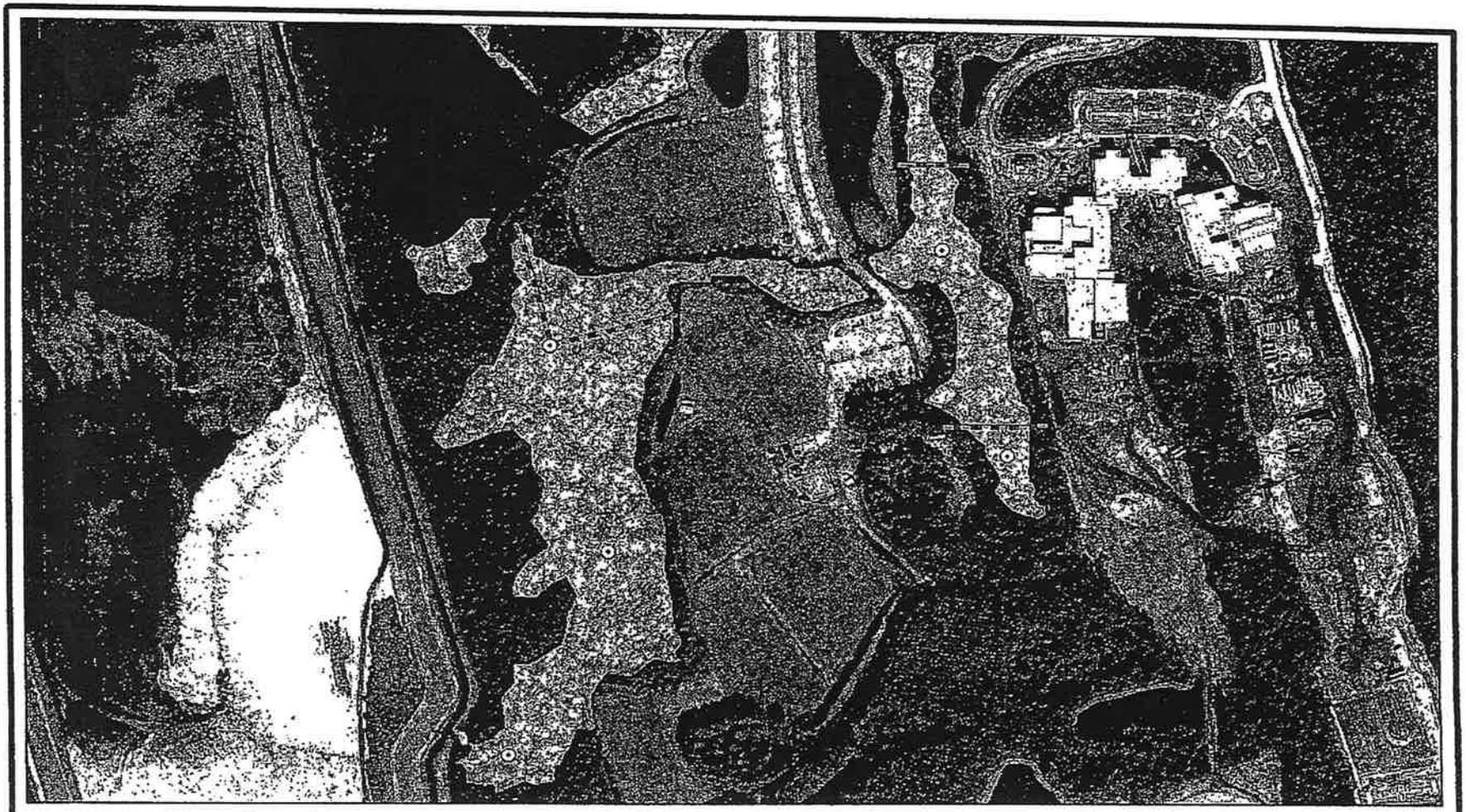
Site Inspection Date(s): November 1, 2021 and March 11, 2022

Date drawn: March 22, 2022

Drawn By: Debbie Kendall, Environmental Manager

Note: This exhibit was prepared using GIS data provided by various sources that may include but are not limited to federal, state, district, and local agencies. FDEP does not warrant data provided by other sources for accuracy or for any particular use that may require accurate information. This map is for informational purposes only and should not be substituted for a survey.

Florida Department of Environmental Protection



0 110 220 440 660 880
Feet

Aerial Photograph Date: 2008

Florida Inland Navigation District

OGC No. 06-2359

Legend

- Direct Impacts (22.84 ac.)
- Secondary Impacts (30.69 ac.)
- Elevation Transects
- Salinity Sample

Secondary Sampling Map

Exhibit D 2

Note: This exhibit was prepared using GIS data provided by various sources that may include but are not limited to federal, state, district, and local agencies. FDEP does not warrant data produced by other sources for accuracy or for any particular use that may require accurate information. This map is for informational purposes only and should not be substituted for a survey.

Florida Department of Environmental Protection

TAYLOR ENGINEERING, INC.
Delivering Leading-Edge Solutions

January 7, 2014

Mark Crosley
Executive Director
Florida Inland Navigation District
1314 Marcinski Road
Jupiter, FL 33477

Re: Scope of Work and Cost Proposal
Permitting and Final Engineering Design for Dredged Material Management Area SJ-20A
St. Johns County, Florida

Dear Mr. Crosley:

Per your request, we have prepared the enclosed scope of work (Attachment A) and cost proposal (Attachment B) for the permitting and final engineering design of the SJ-20A dredged material management area (DMMA). As detailed in the enclosed documents, our proposed services include field investigations, environmental permitting, preliminary and final design, and bid document development for the SJ-20A DMMA facility. In addition, based on (1) recent correspondence with FIND regarding the upcoming St. Johns County Treasure Beach dredging project; (2) FIND's recent history with the SJ-14 DMMA site; (3) review of the 2006 draft construction drawings and specifications prepared by the Jacksonville District U.S. Army Corps of Engineers (USACE), (4) general site location (i.e., 1.4 miles inland), and (5) preliminary review of the surrounding land use, this scope of services includes revision of the 1991 Taylor Engineering and 2006 USACE preliminary DMMA design to include installation of a system to limit and/or prevent off-site saline contamination.

Taylor Engineering will perform these services on a cost plus basis, for a total cost not-to-exceed of $500,594.98. This proposed fee includes subconsultant costs as follows:

- AMEC Environment & Infrastructure, Inc. (AMEC) will complete geotechnical investigation and provide geotechnical design support for a fee of $217,420. To select AMEC, we requested qualifications from five qualified professional geotechnical engineering firms. Based on review of four submitted qualification packages, we determined AMEC as the most highly qualified with respect to similar project experience, qualifications of personnel, personnel availability, proximity of assigned personnel to the project location, and ability of firm to provide the required services in-house. Attachment C provides their scope of services in its entirety.

- SEA Diversified, Inc. (SDI) will provide site feature survey for a fee of $37,245.00. SDI serves as the FIND's surveyor for the northern portion of the District. Attachment D provides their scope of services in its entirety.

If you have any questions concerning this proposal, please contact Lori Brownell, P.E. or me. We can begin work upon your notice to proceed.

Sincerely,

John Adams, P.E.
Senior Advisor, Waterfront Engineering

Attachments (4)

ATTACHMENT A

SCOPE OF WORK AND COST PROPOSAL
PERMITTING AND FINAL ENGINEERING DESIGN FOR
DREDGED MATERIAL MANAGEMENT AREA SJ-20A
ST. JOHNS COUNTY, FLORIDA

The Florida Inland Navigation District (FIND) has designated SJ-20A, a ±44.8-acre area in St. Johns County, Florida for development as a permanent dredged material management area (DMMA) to serve adjacent segments of the Intracoastal Waterway (ICWW). SJ-20A, one of five DMMA facilities in St. Johns County, will receive material removed from Reach IV of the ICWW during channel maintenance operations. Reach IV extends from the Bridge of Lions in St. Augustine (ICWW mile 37.71) south to the S.R. 206 bridge (ICWW mile 47.61). The site lies immediately south of the St. Augustine Shores subdivision, west of the W.D. Hartley Elementary School, and approximately 1.4 miles west of the Matanzas River.

A series of previous Taylor Engineering investigations and subsequent reports will provide the foundation for the DMMA design. The 1991 *Management Plan* indicates that the ±8-acre DMMA includes a 300-ft setback from the property boundary and a dike crest elevation of approximately 8 ft above the existing mean site grade of +25.4 ft NGVD. Although this ICWW reach has not required maintenance dredging since establishment of the 12-ft project depth in 1952, the preliminary DMMA design capacity of 55,743 cubic yards (CY) falls short of the Survey 2004 projected requirement of 92,000 CY. Decreasing the site buffers and increasing the horizontal and vertical extent of the DMMA will result in a site appropriate to meet the required 50-year storage requirement and/or a portion thereof.

In addition, based on (1) recent correspondence with FIND regarding the upcoming St. Johns County Treasure Beach dredging project; (2) FIND's recent history with the SJ-14 DMMA site; (3) review of the 2006 draft construction drawings and specifications prepared by the Jacksonville District U.S. Army Corps of Engineers (USACE), (4) general site location (i.e., 1.4 miles inland), and (5) preliminary review of the surrounding land use, this scope of services also includes revision of the 1991 Taylor Engineering and 2006 USACE preliminary DMMA design to include installation of a system to limit and/or prevent off-site saline contamination.

This proposal describes the scope of work associated with developing a permit application and preparing final engineering design and bid documents for DMMA SJ-20A. We have based our proposed scope of services on the following assumptions:

1. The pipeline right-of-way, routing approximately 7,620 ft (of which, 1,200 ft lies within the tidal marsh) east from the site boundary to the ICWW, will not require any geotechnical field investigation activities at this time.
2. Regulatory agencies will not require mitigation of temporary wetland impacts, if any, associated with the placement of the ingress/egress pipeline for dredging operations.
3. Regulatory agencies will not require any sediment sampling and analysis (grain size or chemical) of the Reach IV sediments.
4. State and federal regulatory agencies will require a wetlands delineation and community classification of the entire SJ-20A property to document existing natural resource conditions. (Note: The 1991 Environmental Site Documentation report (Water & Air Research, Inc. [WAR]) indicates the DMMA footprint will not impact wetlands located within the western 300-ft buffer). Given the date of the report, Taylor Engineering will verify the location of the wetlands (via on-site wetland delineation and report for submittal to the regulatory agencies) within the buffer area. However, because no impacts are expected, this scope of work does not include mitigation assessment, planning or design.

5. The site raises no archeological concerns (based on the 1991 review of the Florida Master File indicating no historical or archaeological sites known for this property).
6. No known utilities exist on site.

If any of these assumptions prove incorrect, we reserve the right to modify our scope and cost proposal, if necessary, to ensure we meet the expectations of FIND. Additionally, this proposal excludes all related permit application fees and construction-phase services.

TASK 1 FIELD INVESTIGATION

1.1 Natural Resources Survey

State and federal regulatory agency policy requires wetland delineation performed within the past five years. Because the previous environmental surveys occurred in 1991, we will delineate on-site wetlands and use the Florida Land Use, Cover and Forms Classification System (FLUCCS) to map natural communities within the project area. This work will provide information necessary to characterize natural resources and identify potential impacts requiring mitigation (if any).

Wetlands Delineation. Taylor Engineering will perform a jurisdictional wetlands delineation of the ±44.8-acre DMMA portion of SJ-20A and the 60-ft wide portion of the pipeline right-of-way out to the edge of the ICWW. The wetlands delineation methodologies will follow the protocols mandated by the Florida Department of Environmental Protection (FDEP) and USACE. Taylor Engineering will install sequentially-numbered stakes and/or flags to mark the wetland-upland interface. Succeeding flags/stakes will be clearly visible from the previous flag location, and the distance between flags will not exceed 100 feet. Taylor Engineering will complete all necessary data sheets as required by the USACE wetlands delineation methodology and regional supplements.

Taylor Engineering will schedule and participate in an on-site meeting with USACE and FDEP staff to verify the jurisdictional wetland boundary and, if necessary, adjust the boundary based on agency staff field observations and comments.

Habitat Characterization and Listed Species Assessment. Taylor Engineering will use FLUCCS to map (via aerial interpretation and groundtruthing) and characterize all natural communities within the SJ-20A project area (DMMA site and pipeline right-of-way). Characterizations will include qualitative descriptions of each identified community, lists of dominant vegetation by species, and documentation of observed and likely occurrences of wildlife. Taylor Engineering will also assess the property for potential use by state- and federally listed species.

Reporting. Taylor Engineering will develop a report summarizing the results of the natural resources field investigation. The report will include

- descriptions of the methods and results of the field investigation
- qualitative descriptions of natural communities including uplands and wetlands
- FLUCCS map including acreages for each community type
- wetland boundary map (showing line verified by agency staff)
- completed wetland delineation forms
- descriptions of wildlife utilization (both observed and likely occurring)
- an assessment of potential use by threatened and endangered species

The threatened and endangered species assessment will identify the state and federal status of each species discussed. The report will also include the results of the meeting with agency staff to verify the wetland line and make any agency-requested adjustments.

1.2 Geotechnical Investigation

Based on a request for qualification process, Taylor Engineering, on behalf of the FIND, selected subconsultant AMEC Environment & Infrastructure, Inc. (AMEC) to complete a geotechnical investigation and provide key design information for the SJ-20A DMMA facility. Activities during this task will begin with a field investigation to include 15 borings with variable depths between 15 and 90 feet. Work will continue with necessary laboratory and geotechnical engineering analysis. The deliverable for this task will comprise a report to establish geotechnical parameters for the pile foundation conditions (near the overflow weir structure), dike foundation conditions, borrow source soil conditions, settlement countermeasures (if necessary), dike construction qualities (e.g., recommended slopes, compaction criteria, etc.), and design input parameters for seepage/slope stability analysis, and saline control measures to guide the containment dike design. This field investigation and laboratory analysis is intended to supplement the previous and draft USACE 2006 geotechnical investigation report.

As part of this sub-task, AMEC will also evaluate the potential area of influence of saltwater migration resulting from multiple uses of the DMMA. AMEC, through comprehensive groundwater flow and transport modeling, will evaluate the need for an engineered controlled solution to minimize and/or prevent offsite saline contamination. Attachment C provides AMEC's scope of services in its entirety.

1.3 Limited Topographic and Site Feature Survey

Based on review of both Taylor Engineering and FIND's historical files, we were able to locate a 1995 St. Johns Survey Company Boundary and Right-of-Way survey and 2006 USACE topographic survey for the site. Since previous site-specific information exists, Taylor Engineering will subcontract SEA Diversified, Inc. (SDI), the FIND's surveyor for the northern portion of the District, to verify the pre-existing topographic survey information. In addition to the topographic verification services, mapping will also include locating wetland flags (Task 1.1), core-boring holes within the site boundary (Task 1.2), and visual evidence of surface utilities. This scope of services excludes mapping the location of underground utilities.

While completing field work, and based on the 1995 boundary survey, SDI will verify that the property corner markers remain in place. SDI will replace lost or destroyed corners; SDI will not perform a full boundary survey. SDI will conduct all work to industry standards and under the responsible charge of a Professional Surveyor and Mapper registered in Florida. All work will meet or exceed the Minimal Technical Standards set forth by the Florida Board of Professional Surveyors and Mappers in Chapter 61G17-6, Florida Administrative Code, pursuant to Section 472.027, Florida Statutes. Attachment D provides SDI's scope of services in its entirety.

TASK 2 ENVIRONMENTAL PERMITTING

The construction of the SJ-20A DMMA will require a permit from the FDEP and potentially the USACE. Task 2 includes preparation and submittal of a Joint Environmental Resource Permit (ERP) application for the construction of SJ-20A. It also includes time to respond to requests for additional information (RAI) from the FDEP and the USACE (if necessary).

2.1 Pre-Application Meetings

Taylor Engineering will coordinate and attend pre-application meetings (one per agency) with the FDEP and the USACE. During these meetings (potentially located on-site), we will introduce the project to state and federal regulatory agency staff, discuss foreseeable permit application issues, and solicit agency recommendations concerning the content and format of the application materials. Following completion of the pre-application meetings, Taylor Engineering will compile and submit meeting minutes to all attending parties.

2.2 Joint Environmental Permit Application

Based on data (natural resources, geotechnical, and survey) collected in Task 1, the proposed site plan layout and agency comments made during the pre-application meetings, Taylor Engineering will prepare and submit a Joint ERP application to the FDEP and the USACE.

The application will include signed and sealed permit-level design drawings (Task 3.4) and narratives describing the (1) overall project and conceptual design, (2) location of on-site sensitive natural habitats, (3) best management practices and impact avoidance/minimization techniques, (4) natural resource impact analysis (if necessary), and (5) construction methodology and schedule.

2.3 Responses to Requests for Additional Information

Following submission of the permit application, both the FDEP and the USACE will likely respond with an RAI. RAIs typically comprise a series of questions requiring additional explanation of the proposed project work. Accordingly, our cost estimate includes time (not to exceed a total of 150 man-hours) to respond to RAIs. If the permit application requires additional labor, field investigations, or laboratory tests to respond adequately to agency RAIs, we will submit a new cost proposal commensurate with the level of effort needed to satisfy agency requests. Taylor Engineering will provide all RAI responses to FIND for review before submitting them to the FDEP and USACE.

2.4 Coordination

The single most important activity during the permitting process is the establishment and maintenance of a clear line of communications between the applicant and the participating agencies. To that end, Taylor Engineering will actively coordinate with local, state, and federal agencies staff during the application process. These agencies include, but are not limited to, the FDEP, USACE, U.S. Fish and Wildlife Service, Florida Fish and Wildlife Conservation Commission, and National Marine Fisheries Service. We will maintain consistency between the state and federal permit applications and other environmental documentation, and strive to resolve environmental issues that arise during the review period.

TASK 3 PRELIMINARY ENGINEERING DESIGN

In conjunction with Tasks 1 and 2, Taylor Engineering will prepare preliminary engineering design documents sufficient for permit review by regulatory agencies. We will review all previously submitted Phase I and Phase II design documents for the SJ-20A DMMA facility and update the site plan according to any modification in the site conditions or updated DMMA design policies.

3.1 Site Reconnaissance Visit

Taylor Engineering will visit the site at least once to examine the physical characteristics of the site as it relates to the overall design of the project.

3.2 DMMA Preliminary Design

Taylor Engineering will design the DMMA site layout, perform associated volume calculations for the overall site plan, and provide a preliminary engineering design for the weir structure.

Site Layout. Based on the updated wetland delineation and geotechnical report, we will develop the project site plan consistent with the site's Phase II preliminary design, environmental and buffer requirements, and any design updates necessary to accommodate modification in the site conditions or updated DMMA design policies. In addition to the central containment basin, the site plan will include access ramp location, ingress/egress points, and access road location.

Volume Calculations. To update the preliminary hand calculations from the Phase II design, we will construct a detailed 3-D terrain model to complete a site design with the goal of obtaining balanced cut and fill earth volumes (to avoid the expense of having an off-site borrow material source) while providing sufficient dredged material storage volume.

Weir Design. We will provide a preliminary design analysis of the hydraulic control structures. Design components will include analysis of the hydraulic weir discharge characteristics, the H-pile box weir structures, the HDPE (high-density polyethylene) discharge piping system, and the access walkway. The weir structural design will consider geotechnical design parameters, lateral and hydrostatic uplift loads, and lateral earth pressure loads.

Site Saline Controls. Taylor Engineering will work with the geotechnical subconsultant AMEC to evaluate the need for and develop and design (if necessary) a site saline control system, that (1) is compatible with typical DMMA designs; (2) will help to reduce and potentially eliminate off-site saline water impacts; and (3) enable the site to be eventually offloaded (when site capacity is reached) without damage (to the extent practicable) to the saline control system. This task also includes the submittal of an intermediate report providing a summary of the alternatives analyzed, associated cost, and subsequent recommendations.

3.3 ERP Engineering Review Criteria

This sub-task details the each of the four primary engineering criteria required for design.

Criteria No. 1– Capacity and Settling Time for Meeting Water Quality Standards at the Discharge. This element requires calculations demonstrating that the DMMA designed settling characteristics (for the Reach II finest sediment fraction) will meet water quality standards. To address this criterion, we will submit calculations and supporting geotechnical data from previously collected sediment samples from ICWW St. Johns Reach II.

Criteria No. 2 – Dike Stability. This element includes (1) geotechnical site investigation, (2) soil testing, (3) stability/seepage analysis, (4) design safety factor determination, (5) site preparation specification, (6) dike construction material identification, (7) water level control design, (8) seepage control design, (9) minimum freeboard determination, (10) construction methods specifications, and (11) construction quality assurance/quality control. Our scope of services, in

combination with the geotechnical site investigation, addresses items 1 – 2; our submittal of standard guide specifications addresses items 5, 6, 10, and 11.

Addressing items 3, 4, 7, 8, and 9 (i.e., stability/seepage analysis, design safety factor determination, water level control design, seepage control design, and minimum freeboard determination) require a more in-depth engineering analysis of the DMMA facility. In coordination with AMEC (Task 1.2) Taylor Engineering will complete the necessary analysis and prepare a memorandum to detail the stability/seepage analysis, design safety factors, excess capacity requirements, storage capacity, structure height, volume recovery, location and elevation of control structures, and a provision for a hazard classification analysis. Similarly, based on the results of the seepage analysis, we will provide site-specific design details for seepage control (e.g., toe drain) integrated with site saline controls (if necessary) for the SJ-20A facility.

Criteria No. 3 – Stormwater Quality and Prevention of Off-site Flooding. This sub-task involves evaluation of the stormwater quality (in accord with St. John's River Water Management District [SJRWMD] F.A.C. 40C-42.026, retention structure) and quantity (based on a 3-year, 1-hour rainfall event). Taylor Engineering will design the site drainage and size pipes, culverts, inlets, and ditches as necessary to provide adequate drainage. We will design erosion control measures as necessary to protect against erosion from weir discharge and rainfall runoff.

Criteria No. 4 – Additional Specific Conditions. Remaining ERP evaluation conditions include submittal of an operation and maintenance plan. This plan — an outline of the site's management activities before, during, and after dredging activities — will assure regulatory agencies of the establishment and maintenance of a vegetative cover, dike safety inspection program, and post-dredging operations.

Under this sub-task, we will update the existing 1991 Management Plan to current operation and maintenance design standards. Specific revisions to the Management Plan will include: (1) operational guidelines for the contractor to follow before, during, and immediately after dredging; (2) inspection criteria designed to ensure the stability and safety of the site's containment dikes; and (3) maintenance criteria for the dike's vegetative cover. The updated Management Plan document will also include a discussion of necessary maintenance activities associated with the site saline control system.

3.4 Permit Drawings

We will prepare digital permit drawings for the various site elements. If appropriate, the permit set will include photo-based sheets depicting the project areas. We will obtain existing aerial photography for this purpose. These drawings will provide plan, cross section, and detail views of the proposed DMMA and its return water control structure as well as any necessary seepage, drainage, saline control, and erosion control features. We will provide signed and sealed permit drawings in appropriate hardcopy format and in digital (AutoCAD and PDF) format.

TASK 4 FINAL DESIGN AND BID DOCUMENTS

4.1 Final Design

Building on the preliminary design efforts and the regulatory permitting process, Taylor Engineering will conduct one additional site reconnaissance visit; complete the final engineering design necessary to construct the DMMA, weir structure and associated deck platform, site access road, and stormwater and saline control infrastructure; and calculate final earthwork volumes associated with the overall site plan.

Site Reconnaissance Visit. Taylor Engineering will visit the site once to visualize and coordinate design aspects with site characteristics during the final engineering design process.

DMMA. Taylor Engineering will complete the project site plan consistent with the preliminary design, planning, and permit documents, as well as environmental and buffer requirements. In addition to the central containment basin, the site plan will include a final access ramp with ingress/egress points. Based on the slope stability and seepage analyses, we will design and detail the underdrains (as appropriate), selected saline control system, and collection system (including the perimeter ditch) to collect and route seepage away from the dike. This task also includes an evaluation of the perimeter ditch capacity for control and treatment of stormwater runoff.

Weir Structure and Associated Deck Platform. Taylor Engineering will complete final design of hydraulic control structures consisting of box weirs with adjustable composite or timber flashboards to control discharge from the DMMA during dredging events. We will design an HDPE pipe collection system to route water collected by the weirs through the dike structure (and the selected site saline control system). Taylor Engineering will design appropriate piles and foundation slab to constrain the weirs against hydrostatic uplift forces during operations. We will design and detail box weir structural members and connections to resist later earth pressure and hydrostatic loads. We will design and detail an access walkway to allow personnel access to the weir structure from the dike crest.

Site Access Road. Taylor Engineering will provide design for stabilized soil/gravel access road to allow for site ingress/egress and transport around the site perimeter.

Stormwater Control. Taylor Engineering will prepare stormwater calculations to size pipes, culverts, inlets, and ditches for adequate site drainage. We will design erosion control measures to protect against erosion from weir discharge and rainfall runoff.

Volume Computations. Taylor Engineering will construct a final 3-D digital terrain model to complete a site design with balanced cut and fill earth volumes.

4.2 Bid Documents

We will prepare digital construction drawings for the various site elements. If appropriate, the drawing set will include photo-based sheets depicting the project areas. We will obtain existing aerial photography for this purpose. Construction drawings will provide plan, cross-sectional, and detail views of the proposed DMMA and its return water control structure as well as any necessary seepage, drainage, saline, and erosion control features. Taylor Engineering will provide construction drawings in appropriate hard-copy format and in digital (AutoCAD) format, as well as record drawings signed and sealed by a Florida Registered Professional Engineer.

We will update the Division 0 and 1 contract documents (Contract Documents) and prepare Division 2 and higher contract documents (Technical Specifications) for construction of the project. We will follow the Engineer's Joint Contract Documents Committee (EJCDC) and Construction Specification Institute (CSI) standards and guidelines in preparing the specifications.

4.3 Opinion of Probable Cost

We will prepare an opinion of probable cost for constructing the SJ-20A DMMA facility.

4.4 Bid Package Preparation

We will prepare a bid schedule with estimated quantities for all bid items. In preparation for project bidding and bid administration, Taylor Engineering will develop a digital bid document package including digital copy of the final drawings and specifications for FIND to advertise the bid and upload onto its FTP site. We will provide FIND with a record set of drawings sealed by a Florida Registered Professional Engineer.

TASK 5 BID ADMINISTRATION

Taylor Engineering will help FIND administer the bidding process and assist in selecting the contractor. We will remain available at our Jacksonville offices to clarify and interpret project documents and prepare addenda, if required. Our project engineer will attend the pre-bid meeting to answer questions concerning elements of the project for which Taylor Engineering is responsible. We will assist with reviewing the bids received and provide FIND with our recommendations for contractor selection. This work includes reviewing the submitted bid documents, checking references of the responsive bidders, and preparing and transmitting a written recommendation for contractor selection. Taylor Engineering will limit its review and recommendations to engineering and technical issues. FIND will take responsibility for legal review and evaluation of contractors' financial condition, business licenses or authorizations, bonding, contractual requirements, and any other non-engineering or non-technical information.

ESTIMATED SCHEDULE

No.	Task	Months from Notice to Proceed											
		1	2	3	4	5	6	7	8	9	10	11	12
1	Field Investigation												
2	Environmental Permitting												
3	Preliminary Engineering Design												
4	Final Design and Bid Documents												
5	Bid Administration												

ATTACHMENT B

TAYLOR ENGINEERING, INC.
COST SUMMARY BY TASK
P2013-179: PERMITTING AND FINAL ENGINEERING DESIGN FOR DMMA SJ-20A

TASK 1: FIELD INVESTIGATION

Labor	Hours	Cost	Task Totals
Vice President	9.0	1,665.00	
Senior Advisor	4.0	708.00	
Director	2.0	308.00	
Senior Professional	56.0	7,224.00	
Staff Professional	55.0	4,730.00	
Technical Editor	2.0	198.00	
Senior Technician	44.0	3,960.00	
Administrative	12.0	672.00	
Total Man-Hours	184.0		
Labor Cost			19,465.00

Non-Labor	Units	Cost	
Mileage (RT)	60.0	26.70	
AMEC Geotechnical Investigation	1.0	217,420.00	
SDI Limited Topographic Survey	1.0	37,245.00	
Non-Labor Cost		254,691.70	
Fee @ 10.0%		25,469.17	
Total Non-Labor Cost			280,160.87
Total Task 1			299,625.87

ATTACHMENT B

P2013-179: PERMITTING AND FINAL ENGINEERING DESIGN FOR DMMA SJ-20A

TASK 2: ENVIRONMENTAL PERMITTING

Labor	Hours	Cost	Task Totals
R. Bruce Taylor, Ph.D.	1.0	306.00	
Vice President	12.0	2,220.00	
Senior Advisor	16.0	2,832.00	
Director	60.0	9,240.00	
Senior Professional	86.0	11,094.00	
Staff Professional	102.0	8,772.00	
Technical Editor	8.0	792.00	
Senior Technician	48.0	4,320.00	
Administrative	12.0	672.00	
Total Man-Hours	345.0		
Labor Cost			40,248.00

Non-Labor	Units	Cost	
Mileage (RT)	60.0	26.70	
Reproductions and Delivery	1.0	100.00	
Non-Labor Cost		126.70	
Fee @ 10.0%		12.67	
Total Non-Labor Cost			139.37
Total Task 2			40,387.37

TASK 3: PRELIMINARY ENGINEERING DESIGN

Labor	Hours	Cost	Task Totals
R. Bruce Taylor, Ph.D.	4.0	1,224.00	
Vice President	38.0	7,030.00	
Senior Advisor	43.0	7,611.00	
Director	38.0	5,852.00	
Senior Professional	166.0	21,414.00	
Project Professional	40.0	4,200.00	
Staff Professional	244.0	20,984.00	
Technical Editor	8.0	792.00	
Senior Technician	166.0	14,940.00	
Administrative	14.0	784.00	
Total Man-Hours	761.0		
Labor Cost			84,831.00
Total Task 3			$ 84,831.00

ATTACHMENT B

P2013-179: PERMITTING AND FINAL ENGINEERING DESIGN FOR DMMA SJ-20A

TASK 4: FINAL DESIGN AND BID DOCUMENTS

Labor	Hours	Cost	Task Totals
R. Bruce Taylor, Ph.D.	2.0	612.00	
Vice President	18.0	3,330.00	
Senior Advisor	15.0	2,655.00	
Director	1.0	154.00	
Senior Professional	174.0	22,446.00	
Project Professional	16.0	1,680.00	
Staff Professional	272.0	23,392.00	
Senior Technician	172.0	15,480.00	
Administrative	26.0	1,456.00	
Total Man-Hours	696.0		
Labor Cost			71,205.00
Non-Labor	Units	Cost	
Reproductions and Delivery	1.0	100.00	
Mileage (RT)	60.0	26.70	
Non-Labor Cost		126.70	
Fee @ 10.0%		12.67	
Total Non-Labor Cost			139.37
Total Task 4			$ 71,344.37

ATTACHMENT B

P2013-179: PERMITTING AND FINAL ENGINEERING DESIGN FOR DMMA SJ-20A

TASK 5: BID ADMINISTRATION

Labor	Hours	Cost	Task Totals
Senior Advisor	5.0	885.00	
Senior Professional	12.0	1,548.00	
Staff Professional	20.0	1,720.00	
Administrative	4.0	224.00	
Total Man-Hours	41.0		
Labor Cost			4,377.00
Non-Labor	Units	Cost	
Mileage (RT)	60.0	26.70	
Fee @ 10.0%		2.67	
Total Non-Labor Cost			29.37
Total Task 5			$ 4,406.37

Project Total $ 500,594.98

ATTACHMENT C

amec

January 6, 2014

Mr. Jonathan T. Armbruster, P.E.
Vice President, Waterfront Engineering
Taylor Engineering, Inc.
10151 Deerwood Park Boulevard
Building 300, Suite 300
Jacksonville, Florida 32256

Subject: **Revised Proposal for Engineering Services**
FIND SJ-20A Dredged Material Management Area (DMMA)
St. Johns County, Florida
AMEC Proposal No. 13PROPJAXV.332

Dear Mr. Armbruster:

AMEC Environment & Infrastructure, Inc. (AMEC) is pleased to submit this proposal to provide geotechnical exploration and engineering services for the subject project. Included in this proposal is our understanding of the project, an outline of the proposed services, a fee estimate, and our anticipated schedule. We previously submitted our Statement of Qualifications for this project on December 12, 2013. This proposal supersedes our previous proposal submitted on January 2, 2013.

Project Information

Project information was provided by you and by Ms. Lori Brownell and Messrs. John Adams and Bob DiRienzo of your office during the period of December 6, 2013, to January 6, 2014. We were furnished with the following items:

- Request for Proposal (RFP) for Geotechnical Engineering Services
  SJ-20A Dredged Material Management Area (DMMA)
  Prepared by: Taylor Engineering, Inc.
  Dated: December 17, 2013

The following items were attached to the RFP:

- Attachment A: Requirements for the Requested Geotechnical Services
  Prepared by: Taylor Engineering, Inc.
  Dated: December 17, 2013

- Attachment B: SJ-20A Management Plan
  Prepared by: Taylor Engineering, Inc.
  Dated: October, 1991

- Attachment C: SJ-20A Engineering Narrative
  Prepared by: Taylor Engineering, Inc.
  Undated

AMEC Environment & Infrastructure, Inc.
3901 Carmichael Avenue • Jacksonville, FL 32207 • Phone: 904.396.5173 • Fax: 904.396.5703
www.amec.com

- Attachment D: Plans for Construction of SJ-20 Disposal Area
  Draft Copy – Technical Review Only
  Prepared by: U.S. Army Corps of Engineers (USACE), Jacksonville District
  Dated: 2006

- Attachment E: Construction Solicitation and Specifications
  (Draft Copy – Technical Review Only)
  Construction of SJ-20 Disposal Area
  St. Johns County, Florida
  Prepared by: USACE
  Dated: May 15, 2006

The Draft Construction Solicitation and Specifications document included the locations and results of four Standard Penetration Test (SPT) borings (one drilled to a depth of 51 feet, and three drilled to a depth of 21 feet each) and two test pits (excavated to a depth of 10 feet each) that were performed by USACE on this site in 2006.

We understand that the proposed SJ-20A DMMA will be located immediately south of the St. Augustine Shores subdivision, on the south side of Cortez Drive, approximately 2/3 mile east of U.S. Highway 1 and approximately 1½ miles west of the Matanzas River/Intracoastal Waterway (ICWW) in southern St. Johns County, Florida. The proposed SJ-20A DMMA containment basin will be trapezoidal in plan, covering an area with overall plan dimensions of approximately 680 feet in the north-south direction, and 480 to 640 feet in the east-west direction (footprint area of about 9 acres). A 300-foot buffer is currently required around the perimeter of the DMMA; however, we understand this may be able to be reduced, possibly resulting in an overall site area of 45 acres such that the footprint of the DMMA may expand somewhat. We understand the presence of wetlands on the east and west sides of the site will limit this expansion. The current area of the SJ-20A DMMA was previously cleared of vegetation.

We also understand that the SJ-20A DMMA will be designed and constructed to receive, dewater, and temporarily store material removed from Reach IV of the ICWW during maintenance dredging operations, which extends 9.9 miles from the Bridge of Lions in St. Augustine to the S.R. 206 bridge. The DMMA will have a perimeter dike with a crest elevation of +36.0 feet (NAVD 1988), or 8 feet above the existing mean site elevation of +28 feet, a dike crest width of 12 feet, and side slopes of 3:1 (H:V). We understand the dike height could be as high as 15 feet, depending on final design parameters. The interior of the basin will be excavated to a mean elevation of +24 feet, which corresponds to a mean depth of approximately 4 feet below the existing mean grade elevation. The excavated soils will be used to construct the dikes. When the basin is filled to capacity, the surface of the deposited soils will be a minimum of 4 feet below the dike crest, with a minimum of 2 feet of freeboard and 2 feet of ponding above the maximum deposition surface.

A perimeter ditch will be constructed at a 20-foot setback from the outside toe of the containment dike. This perimeter ditch has been preliminarily designed to have a bottom elevation of +25 feet, a bottom width of 3 feet, and side slopes of 2.5:1 to 3:1 (H:V). A

perimeter service road will be constructed around the basin, between the ditch and the toe of the basin. This road will have a 12-inch thick surface layer of shell rock.

Dredge supply and return pipelines will be located within a pipeline easement connecting the ICWW with the DMMA near its northeastern corner. The pipeline easement is approximately 1¼ miles long.

The inlet pipeline will be located along the north side of the basin, and will enter the basin near its northwest corner. An overflow weir structure will be located near the southeastern corner of the proposed basin. This pile-supported weir structure will consist of an H-pile box weir structure, HDPE piping system, and a timber access walkway. Removable flashboards will allow adjustment of the weir height. A manifold will connect the weirs and carry the return water under the southeast corner of the dike to a connecting return pipeline along the outside toe of the eastern dike to the pipeline easement that will continue to the shoreline of the ICWW. We understand that timber piles (14-inch butt diameter) are being considered for support of the weir structure, and that a maximum pile embedment length of 80 feet below existing grade is anticipated. Loading information for the weir structure has not been furnished. We assume that pile loads will be provided to us at the appropriate time.

We understand there is concern over the potential for off-site soil and groundwater becoming contaminated by the salt water that will be pumped into the containment basin during the dredging operations. An evaluation of the need for a system (such as a liner) to limit or prevent off-site saline contamination is desired. If such a system is determined to be necessary, then we understand that we will prepare construction drawings and specifications for this system.

We understand that all of the furnished design parameters mentioned above are preliminary and subject to change as the project design progresses. Additionally, geotechnical testing services related to the proposed pipelines will not be required.

Proposed Geotechnical Exploration

Our geotechnical exploration will consist of field testing, laboratory testing, geotechnical engineering, and reporting. These services are discussed in more detail in the following paragraphs.

Field Exploration

The following table presents our proposed scope of field exploration services:

Area	Boring Type	Boring Depth (ft)	Quantity
Perimeter Dike	SPT*	30	4
		60	2
Weir Structure	SPT	90	1
Containment Basin Interior	SPT	15	8

* Standard Penetration Test (ASTM D 1586)

A total dike centerline length of approximately 2,000 lineal feet was used to develop our scope. We have proposed a horizontal boring spacing of approximately 240 to 250 feet. Boring layout will be accomplished using a hand-held GPS device.

Based on the furnished borings, we have included an allowance for obtaining only two thin-walled (Shelby) tube samples of soft clay or silt. We have included an allowance for the installation of up to 150 feet of temporary casing, to stabilize the boreholes in the event that porous zones are encountered. We plan to install four temporary piezometers by installing PVC pipe in augered boreholes (one near each of the four corners of the site) for the purpose of obtaining stabilized groundwater level measurements. We also plan to backfill the borings drilled to depths of 30 feet or greater with grout, if limestone is encountered, or if a confining layer is penetrated, in accordance with water management district requirements for aquifer protection.

The purpose of the 15-foot deep SPT borings is to evaluate the soils in the interior of the proposed containment area for use as dike construction materials. In addition to the borings, we plan to obtain up to six bulk samples of soil from the interior of the proposed containment area for subsequent laboratory compaction, permeability, Limerock Bearing Ratio (LBR), triaxial compression testing, and direct shear testing. We will attempt to estimate the depth to the seasonal high groundwater level at representative locations, if evident.

We propose to utilize Independent Drilling, Inc. (IDI) to perform the drilling services under subcontract to AMEC. A representative from our office will be present during the drilling operations to observe and document the borings.

We will conduct drilling, testing, and sampling in general accordance with applicable ASTM standards. At the completion of drilling, we will transport the recovered soil samples to our laboratory where they will be examined by a geotechnical engineer and visually classified according to the Unified Soil Classification System. The engineer will then select samples for laboratory classification testing, if appropriate.

Laboratory Testing

We plan to conduct laboratory tests on representative soil samples we obtain during drilling. These tests will help us estimate the bearing, shear strength, and settlement characteristics of the subsurface soils on the basis of empirical correlations and our prior experience. The following table presents our proposed laboratory test types and quantities:

Test	Proposed Quantity
Moisture Content	20
Fines Content	10
Organic Content	6
Grain Size Distribution	15
Atterberg Limits	8
Unit Weight (of undisturbed samples)	2
Consolidation (of undisturbed samples)	2

Modified Proctor Compaction (of bulk samples)	6
Hydraulic Conductivity (of remolded bulk and SPT samples)	10
Triaxial Compression (of remolded bulk and SPT samples)	4
Direct Shear (of remolded bulk and SPT samples)	4
Limerock Bearing Ratio, LBR (of bulk samples)	4

The actual quantity of each test may vary from what is shown above, depending on the subsurface conditions that are encountered by the borings. We will conduct laboratory tests in general accordance with ASTM or other widely accepted standards.

Geotechnical Engineering and Reporting

A registered professional engineer who has specialized in geotechnical engineering will direct and supervise our services. A report that describes our exploration and recommendations will be provided for you. This report will include the following:

1. A brief review of our test procedures and the results of all field and laboratory tests conducted. This will include a plan illustrating the location and reference number of each soil boring, and logs of each boring. GPS coordinates of each boring location will be provided. The boring logs will include the measured groundwater levels (and estimated seasonal high groundwater levels, if evident).

2. Estimated subsurface profiles to illustrate the subsurface conditions including standard penetration resistance test data and groundwater levels. The furnished borings drilled by USACE will also be included.

3. A review of surface features and site conditions that could affect pile installation, dike construction, and site preparation.

4. A general evaluation of the site considering the proposed project and estimated subsurface conditions.

5. Recommended soil parameters for use in performing dike stability and seepage analyses, including shear strength (drained and undrained conditions), unit weight, hydraulic conductivity of in situ soils (horizontal and vertical directions), and hydraulic conductivity of remolded soils for dike construction or undisturbed samples underlying the proposed dike. As requested, our seepage and slope stability analyses will be performed for the following conditions:

    a. End of Construction
    b. Steady-State Seepage
    c. Rapid Drawdown

6. The results and summaries of our dike seepage and slope stability analyses demonstrate that the dike integrity will not be impacted by the worst- case condition.

7. Estimates of dike settlement potential (magnitude and time-rate) based on the available data.

8. Recommendations for construction if dike settlement is excessive (as applicable).

9. Recommendations for site preparation, including compaction of the existing soils and the construction of compacted fills or backfills.

10. General recommendations for construction dewatering, if necessary.

11. An evaluation of the acceptability of the soils to be excavated from the proposed basin for re-use as structural fill material for construction of the dike.

12. Estimated depths to the seasonal high groundwater level at the boring locations.

13. Guideline recommendations for erosion control on the dike slopes.

14. Recommended soil parameters for your use in performing a pile axial load analysis, as well as a pile lateral load analysis (using the LPILE software), including unit weights, friction angles, cohesion values, and lateral subgrade modulus values.

15. General recommendations for earthwork and weir foundation construction methods.

16. Recommendations for subgrade and surface course preparation for the planned unpaved roadway construction.

Analysis of pile capacity and settlement, as well as recommendations for pile design, installation, load testing, and installation monitoring, are beyond our proposed scope.

The assessment of site environmental conditions or the presence of pollutants in the soil, rock or groundwater of the site is beyond the proposed scope of this geotechnical exploration. Our services do not include the preparation of design drawings or specifications for the proposed dike construction. Design drawings and specifications related to saline control measures (if needed) are addressed later in this proposal.

The results of our groundwater modeling and our recommendations for implementation of saline control features, if needed, will be included in our report. The following section describes these proposed services.

Proposed Groundwater Modeling Services (Saline Control)

The primary objective of the proposed groundwater modeling is to estimate the potential area of influence of saltwater migration due to multiple DMMA filling scenarios. Saltwater

intrusion due to seepage and infiltration from the SJ-20A DMMA can have potentially detrimental impacts on the existing or future groundwater withdrawals in terms of water quality. Thus, comprehensive groundwater flow and transport modeling is required to predict expected saltwater plumes and, if required, develop mitigation strategies to limit the extents of saltwater plumes. The following tasks describe the steps that need to be accomplished to meet the aforementioned requirements:

1. Review of the Existing Regional Groundwater Models - Currently three primary regional groundwater models exist whose model domains cover the SJ-20A DMMA site. These models are Northeast Florida Model (NEF; SJRWMD), North Florida Groundwater Flow Model (SRWMD), and Mega Model (originally by USGS, updated by Intera Inc.). Another regional groundwater model called North Florida Southeast Georgia model currently being developed also encompasses the SJ-20A DMMA site. A detailed review of the aforementioned models will be made to determine the most appropriate model(s) that can be used as the base groundwater model for the development of a site-specific model for the SJ-20A DMMA site.

2. Review of Existing Geotechnical, Hydrological, and Hydrogeological Data - As part of the current proposed geotechnical exploration phase and previously conducted preliminary borings (furnished Attachment E), a significant amount of site-specific subsurface data will be available. Detailed review of this existing and proposed dataset will be conducted to verify and update the subsurface representation of the selected regional groundwater model in the vicinity of the SJ-20A DMMA site. In addition, any local groundwater monitoring data (stage, quality, etc.) will be compiled and reviewed for potential incorporation of the site-specific groundwater model.

3. Compilation of Existing Well Permits - The location of existing wells and associated pumping data is critical information for this study. The compilation of existing well permit data will not only allow for identification of wells in the potential zone of saltwater intrusion, but will also assist in the accurate simulation of groundwater withdrawals. The compiled existing well permit data will be compared against the data specified in regional models to ensure that the most up-to-date information is represented in the model.

4. Development of Conceptual Groundwater Model - Information gathered as part of Task 1 and Task 2 in conjunction with the provided information in the water management plan, engineering design, etc. will be combined to develop a conceptual groundwater model that would be used to specify conceptual representation of different elements of the model such as hydrogeological discretization (especially close to the land surface), boundary conditions, and the proposed SJ-20A DMMA. The conceptual model will also be used to determine if the proposed groundwater modeling framework (as developed in Task 6) is adequate to represent any potential mitigating controls.

5. Field Measurement of Dispersivity using Tracer Test - The regional groundwater models developed in the area (see Task 1) are strictly groundwater flow models and none are set up to simulate transport processes and thus do not have any specification in regard to dispersivity and diffusion characteristics of the underlying

aquifers. In absence of any information about the dispersion characteristics of the underlying aquifers (especially the surficial aquifer), a field test using dye or other suitable tracers is recommended.

As recommended in the furnished management plan (Appendix B), groundwater monitoring wells should be installed and monitored for chloride concentrations to establish pre-construction conditions and also to detect any increases due to the disposal of dredge materials. We plan to install three groundwater monitoring wells (one for injection and two others for detection) to conduct the tracer test.

6. Sampling and Testing of ICWW Sediment Samples - In order to estimate the concentration of salinity that may leach from the impounded materials as a result of rainfall infiltration following the completion of dredging operations and the closure of the DMMA, we plan to collect samples of the sediments to be dredged from the ICWW. We assume the maximum depth of this sampling (to reach the 12-foot channel depth) will be 5 feet below the mudline. We plan to utilize either a portable barge with a drill rig or a vibracore rig to collect the samples, with a spacing of approximately one mile between sampling locations, for a total not exceeding 10 samples. We plan to conduct the following laboratory tests on these samples:

Test	Proposed Quantity
Moisture Content	5
Grain Size Distribution	10
Specific Gravity	5
Elutriate Analysis*	10
Hydraulic Conductivity (remolded to a loose state, using both saltwater and fresh water)**	5

*Incorporates chlorides, metals, nutrients, PAHs, and organic compounds
**The water will be sampled periodically during these tests and tested for salinity and/or chloride content

The information from this testing will be used in the groundwater model to evaluate the long-term salinity leach potential of the dredged material sediments.

7. Development of Numerical Model - The regional scale model selected for use in the current study (see Task 1) will be updated using the site-specific information (see Task 2 and Task 3) in accordance with the conceptual model developed as part of Task 3. Since the objective of the model is the simulation of a saltwater plume, USGS's variable density SEAWAT groundwater model will be used as the modeling tool of choice. The advantage of using SEAWAT is that the modeling construct used in the existing MODFLOW-based groundwater models can be transferred in to SEAWAT. Transport-related input parameters and modeling conceptualizations can be subsequently incorporated.
The SEWAT model developed will be updated using site-specific data and will be referred to as the SJ-20A DMMA Groundwater Model.

8. Calibration and Verification of the Groundwater Model - Baseline site-specific monitoring data and other regional monitoring datasets collected from other sources will be used to calibrate and verify the SJ-20A DMMA Groundwater Model. The

calibration and verification process will focus on the SJ-20A DMMA site and the nearby residential areas. The calibration statistics for targets specified in other portions of the selected regional model will be checked to verify that no significant change to the existing calibration statistics occurs due to site-specific modifications.

The calibrated and verified model will subsequently be used to simulate different fill scenarios and expected saltwater plumes propagating out of the SJ-20A DMMA site.

9. Simulation of SJ-20A DMMA Filling Scenarios - A representative filling scenario will be simulated using the calibrated and verified model. Note that the cost proposed in the budget is for simulation of up to three filling scenarios. Additional scenarios can be scoped out and simulated later, if desired by the project team.

10. Simulation of Proposed Controlling/Mitigation Options - Based on the simulation of filling scenario and the corresponding saltwater plume, some controlling/mitigation options may be necessary. Based on the input received, different mitigation options can be simulated. The current cost proposal includes simulation of up to three mitigation options.

11. Reporting - Technical memoranda will be issued after successful completion of each of the aforementioned tasks. The memoranda will describe in detail how the corresponding task was completed, what were the main conclusions, and any assumptions made.

A final groundwater modeling report compiling information from each of the different tasks will form part of the comprehensive geotechnical analysis report. Alternative control measures will be considered and discussed, including estimated construction costs and technical risks and benefits associated with each alternative.

We understand construction drawings and specifications for recommended saline control features are requested. We will consult and coordinate with Taylor Engineering to integrate saline control feature designs and specifications. Final drawings and specifications describing and featuring the saline control features will be provided.

Estimated Fees

Since the site and subsurface conditions are not precisely known, it is not possible to accurately determine all types of analyses and related studies that may be necessary. In addition, boring, sampling, and testing requirements are a function of the subsurface conditions that are actually encountered. Based upon our experience and our understanding of the project requirements, we propose to perform the outlined scope of services for a total not-to-exceed fee of $217,420, which is summarized below.

Service	Task	Estimated Fees
Geotechnical Services	**Geotechnical Field Services**	
	Mobilization, SPT Borings, Bulk Samples, and Temporary Piezometers	$11,430
	Undisturbed Samples*	$245
	Temporary Casing*	$1,055
	Grouting of Completed Boreholes*	$1,330
	Geotechnical Laboratory Testing Services	
	Classification Testing	$2,140
	Hydraulic Conductivity Testing	$2,500
	Consolidation Testing*	$950
	Unit Weight and Moisture Content (thin-walled tube sample)*	$110
	Triaxial Compression Testing	$2,040
	Direct Shear Testing	$2,175
	Proctor Compaction Testing	$660
	LBR Testing	$1,400
	Geotechnical Engineering Services	
	Geotechnical Engineering / Report Preparation	$21,645
	Total Estimated Geotechnical Services Fee:	**$47,680**
Groundwater Modeling / Saline Control Services	**Groundwater Modeling Field Services**	
	Installation of Three Monitoring Wells	$3,500
	Field Measurement of Dispersivity	$6,220
	Sampling of ICWW Sediments to be Dredged	$25,470
	Laboratory Testing of ICWW Sediments	
	Classification Testing (moisture content, grain size distribution, specific gravity)	$870
	Elutriate Analysis	$5,000
	Hydraulic Conductivity	$2,625
	Groundwater Model Development and Evaluation	
	Review and Conceptual Model Development	$36,800
	Evaluation of Sediment Leachate Potential	$6,050
	Development of Numerical Model	$23,155
	Calibration and Verification of the Model	$21,640
	Simulation of SJ-20A DMMA Filling Scenarios	$5,430
	Simulation of Proposed Mitigation Options	$4,325
	Report Preparation	$8,575
	Saline Control Features	
	Evaluation of Alternative Saline Control Solutions	$10,145
	Preparation of Plans and Specifications	$9,935
	Total Estimated Groundwater Modeling/Saline Control Fee:	**$169,740**
	TOTAL ESTIMATED NOT-TO-EXCEED FEE:	**$217,420**

*We will only charge for these items if they are necessary.

Our fee estimate assumes that the site is accessible to IDI's All-Terrain Vehicle-mounted drilling equipment. We assume the field services may be performed during normal business hours (Monday through Friday, 7:00 a.m. to 6:00 p.m.), that our operations will not be hindered by any on-site activities of others, and that we will be provided with combinations or keys to the locks on the various gates to the site.

Compensation for the services outlined above, or any additional services you may request, will be based upon the actual time spent and tests performed in accordance with our attached Fee Schedule. We will not exceed our total estimated fee without an extension of the scope of services by your office.

Invoicing

We plan to submit invoices every four to five weeks, and following the conclusion of our services.

Schedule

Based upon our present schedule we can begin this project within about one week after we receive written authorization to proceed. We anticipate that our report will be available about 16 weeks after our receipt of written authorization. We can, however, provide preliminary verbal results and recommendations as analyses are completed in order to help expedite the design process.

IDI will call Sunshine State One Call of Florida (Sunshine 811) to locate and mark underground utilities prior to the field exploration. Once the locate ticket has been requested and issued, at least two business days (not including the day of the request) will be required for utility locators to locate and mark underground utilities. We assume that any information you have regarding known underground utility locations will be provided to us prior to the field exploration.

Authorization

To authorize us to proceed with the proposed services and to make this proposal, our statement of Terms and Conditions, and other enclosures the agreement between us, please execute the attached Professional Services Agreement (PSA) and return one copy (of all four pages) to us. Any exceptions to this proposal or special requirements not covered in the proposal should be listed on the PSA.

We appreciate your consideration of AMEC for these services and look forward to serving as your geotechnical and groundwater modeling consultant on this and other future projects. If you have any questions regarding this proposal, please contact us.

Sincerely,

AMEC ENVIRONMENT & INFRASTRUCTURE, INC.

Michael B. Woodward, P.E.
Principal Geotechnical Engineer

Jeffrey A. Beriswill, P.E.
Senior Associate Geotechnical Engineer

Brian E. Schiessle, E.I.
Staff Geotechnical Engineer

Attachments: Fee Schedule
Professional Services Agreement

Distribution: Taylor Engineering, Inc. (2)
File (1)

AMEC ENVIRONMENT & INFRASTRUCTURE, INC.

FEE SCHEDULE

FIELD SERVICES

Mobilization and Transportation of Drilling Equipment, Land-Based, Lump Sum	$	550.00
Soil Test Borings (Land):		
0 to 50 foot depth range, per lineal foot	$	10.65
50 to 100 foot depth range, per lineal foot	$	11.80
Auger Borings or Wash Drilling (Land), per lineal foot	$	7.75
Hourly Crew Rates (Land):		
Difficult moving or drilling through rubble fill, per hour	$	195.00
Standby Time at Client's Request, per hour	$	195.00
Sampling and testing not included above and boring layout	$	195.00
Undisturbed Samples (Land), each	$	121.00
Temporary Casing (3" or 4" Diameter), Land:		
0 to 50 foot depth range, per lineal foot	$	6.35
50 to 100 foot depth range, per lineal foot	$	8.05
Temporary Piezometers:		
0 to 50 foot depth range, per lineal foot	$	21.30
Piezometer Temporary Risers, each	$	15.85
Monitoring Wells:		
0 to 50 foot depth range, per lineal foot	$	27.60
Concrete pad with aluminum cover, each	$	145.00
Grouting of Completed Boreholes, Land, per lineal foot	$	4.05
Out-of-Town Drill Crew Per Diem, two-man crew, per day	$	287.50
Barge Drilling Rig and Crew, per day	$	4,025.00
Vibracore Rig Mobilization, Lump Sum	$	11,270.00
Vibracore Rig, Crew, and Materials, per day	$	5,290.00
Reimbursable Expenses, actual cost times 1.15	$	---

LABORATORY SERVICES

Water Content, each	$	10.00
Fines Content, each	$	30.00
Grain Size Determination, Wash No. 200 Sieve, ASTM D1140, each	$	48.00
Plasticity (Atterberg Limits), each	$	70.00
Unit Weight and Natural Moisture Content (Undisturbed Sample), each	$	55.00
Specific Gravity, each	$	65.00
Consolidation, each	$	400.00
Organic Content, each	$	35.00
Hydraulic Conductivity (Standard), each	$	225.00
Hydraulic Conductivity (Long-Term, saltwater and fresh water), each	$	500.00
Limerock Bearing Ratio (LBR), each	$	350.00
Triaxial Shear (three Mohrs circles), each	$	480.00
Direct Shear (three points), each	$	480.00
Standard or Modified Proctor Compaction, each	$	120.00
Remold Samples, each	$	30.00
Elutriate Analysis, each	$	500.00

Fee Schedule
Page -2-

ENGINEERING AND TECHNICIAN SERVICES

Staff Engineer, per hour	$	90.00
Technical Professional, per hour	$	110.00
Project Engineer, per hour	$	140.00
Principal Engineer, per hour	$	155.00
Associate Scientist, per hour	$	165.00
Senior Associate Engineer, per hour	$	185.00
CADD Operator, per hour	$	93.00
Field Technician, per hour	$	78.00
Senior Engineering Technician, per hour	$	67.00
Engineering Technician, per hour	$	47.00
Vehicular Mileage, per mile	$	0.70
Reimbursable Expenses, actual cost times 1.15	$	--

NOTE: The above engineering technician hourly rates will be multiplied by a factor of 1.50 for services that are performed before 7:30 a.m., after 4:00 p.m., or on weekends and State of Florida/Georgia recognized holidays.

Professional Services Agreement

PARTIES
This Agreement made this 6th day of January, 2014, between:

Taylor Engineering, Inc.	and	**AMEC Environment & Infrastructure, Inc.**
10151 Deerwood Park Blvd; Bldg. 300, Suite 300		3901 Carmichael Avenue
Jacksonville, Florida 32256		Jacksonville, Florida 32207
Mr. Jonathan T. Armbruster, P.E.		Mr. Michael B. Woodward, P.E.
hereinafter called "Client"		hereinafter called "AMEC"

PROJECT
Client engages AMEC to provide services in connection with: Proposal for Engineering Services
FIND SJ-20A Dredged Material Management Area
St. Johns County, Florida

SCOPE OF SERVICES
AMEC agrees to perform services in accordance with the attached proposal 13PROPJAXV.332

Client agrees that all services not expressly included are excluded from AMEC's Scope of Services.

COMPENSATION (check one)

___ **Firm-fixed price:** Client agrees to compensate AMEC on a firm-fixed price basis in the amount of:

__X__ **Time and materials:** Client agrees to compensate AMEC for all hours worked and other costs incurred at the rates and terms set forth herein. Should the total cost of AMEC's performance be greater than the estimated amount shown below, AMEC will notify Client and provide a revised estimate for Client's approval. In such event, continued performance is subject to additional funding as mutually agreed.

TOTAL ESTIMATED NOT-TO-EXCEED FEE: $217,420

In addition to the Agreement amount, Client assumes full responsibility for the payment of any applicable sales, use, or value-added taxes under this Agreement, except as otherwise specified.

ATTACHMENTS
The listed attachments form part of this Agreement:

1. Proposal for Engineering Services
2. Terms and Conditions

TERMS AND CONDITIONS

1. **AUTHORIZATION TO PROCEED.** The signing of this Agreement by the Client and AMEC will serve as written authorization for AMEC to proceed with the services called for in this Agreement.
2. **ENTIRE AGREEMENT.** This Agreement, including attachments incorporated herein by reference, represents the entire agreement between AMEC and Client and supersedes all prior negotiations, representations, or agreements, either written or oral. This Agreement may be altered only by written instrument signed by authorized representatives of both Client and AMEC.
3. **CHANGES AND DELAYS.** CLIENT acknowledges that AMEC's services do not include the review of public disclosure documents or preparing consents for regulatory filing purposes. If CLIENT requests such consents from AMEC, CLIENT acknowledges that it will be at CLIENT's cost, and CLIENT shall allow sufficient time for AMEC to perform the necessary review required for completing the consents. Work beyond the scope of services or re-doing any part of the project through no fault of AMEC, shall constitute extra work and shall be paid for on a time-and-materials basis in addition to any other payment provided for in this Agreement. In the event AMEC's work is interrupted due to delays other than delays caused by AMEC, AMEC shall be compensated equitably (based on AMEC's current Fee Schedule) for the additional labor or other charges associated with maintaining its work force for Client's benefit during the delay, or at the option of the Client, for charges incurred by AMEC for demobilization and subsequent remobilization. If, during the course of performance of this Agreement, conditions or circumstances are discovered which were not contemplated by AMEC at the commencement of this Agreement, AMEC shall notify Client in writing of the newly discovered conditions or circumstances and the impact on the Agreement. Client and AMEC agree to negotiate in good faith any changes to the price, terms and conditions or schedule of this Agreement. Client acknowledges and agrees that its use of any purchase order or other form to procure services is solely for administrative purposes and in no event shall AMEC be bound to any terms and conditions on such form regardless of reference to or signature. Client shall endeavor to reference this Agreement on any purchase order (or any other form), but Client's failure to do so shall not operate to modify this Agreement.
4. **PAYMENT AND SUSPENSION.** Unless otherwise stated in the Proposal, invoices will be submitted by AMEC either at the completion of the work or on a monthly basis and will be due and payable on the invoice date. Invoices not paid within thirty (30) days of the invoice date shall be subject to a late fee of one and one-half percent (1.5%) per month computed at 31 days from the date of invoice. In addition, any collection fees, legal fees, court costs, and other related expenses incurred by AMEC in the collection of delinquent invoice amounts shall be paid by CLIENT. IN THE EVENT CLIENT DISPUTES ALL OR PART OF AN INVOICE, CLIENT MUST ADVISE AMEC IN WRITING WITHIN FIFTEEN (15) DAYS FROM INVOICE DATE. UNDISPUTED PORTIONS ARE SUBJECT TO PAYMENT WITHIN THIRTY (30) DAYS. **AMEC may suspend performance of services under this Agreement if: 1) CLIENT fails to make payment in accordance with the terms hereof, 2) CLIENT becomes insolvent, enters bankruptcy, receivership, or other like proceeding (voluntary or involuntary) or makes an assignment for the benefit of creditors, or 3) AMEC reasonably believes that CLIENT will be unable to pay AMEC in accordance with the terms hereof and notifies CLIENT in writing prior to such suspension of services. If any such suspension causes an increase in the time required for AMEC's performance, the performance schedule and/or period for performance shall be extended for a period of time equal to the suspension period.**
5. **PERMITS, UTILITIES AND ACCESS.** Unless otherwise agreed in writing, the Client shall: 1) apply for and obtain all required permits and licenses; 2) make all necessary arrangements for right of entry to provide AMEC access to the site for all equipment and personnel at no charge to AMEC; 3) make available to AMEC all relevant information and documents under its control regarding past, present and proposed conditions of the site, including but not limited to plot plans, topographic studies, hydrologic data and previous soil and geologic data including borings, field or laboratory tests and written reports and shall immediately transmit to AMEC any new information that becomes available or any changes in plans; and 4) provide AMEC with the location of all underground utilities and structures in the exploration area. While AMEC will take all reasonable precautions to minimize any damage to the property, the Client agrees to hold AMEC harmless for any damages to any subterranean structures or any damage required for right of entry.
6. **PROBABLE COSTS.** AMEC does not guarantee the accuracy of probable costs for providing services hereunder. Such probable costs represent only AMEC's judgment as a professional and are supplied only for the general guidance of the Client.
7. **DISPUTES.** Any dispute arising hereunder shall first be resolved by taking the following steps, where a successive step is taken if the issue is not resolved at the preceding step: 1) by the technical and contractual personnel for each party performing this Agreement, 2) by executive management of each party, 3) by mediation, or 4) through the court system of the jurisdiction of the AMEC office that is entering into this Agreement. Client hereby waives the right to trial by jury for any disputes arising out of this Agreement. Except as otherwise provided herein, each party shall be responsible for its own legal costs and attorneys' fees.

8. **STANDARD OF CARE.** In the performance of professional services, AMEC will use that level of care and skill ordinarily exercised by reputable members of AMEC's profession currently practicing in the same locality under similar conditions. NO OTHER REPRESENTATION, GUARANTEE, OR WARRANTY, EXPRESS OR IMPLIED, IS INCLUDED OR INTENDED IN THIS AGREEMENT, OR IN ANY COMMUNICATION (ORAL OR WRITTEN), REPORT, OPINION, DOCUMENT, OR INSTRUMENT OF SERVICE.
9. **INDEMNITY.** Client agrees to defend, indemnify, protect and hold harmless AMEC and its officers, employees and agents from any and all claims, liabilities, damages or expenses, including but not limited to delay of the project, reduction of property value, fear of or actual exposure to or release of toxic or hazardous substances, and any consequential damages of whatever nature, which may arise directly or indirectly, to any party, as a result of the services provided by AMEC under this Agreement, unless such injury or loss is caused by the sole negligence of AMEC.
10. **LIMITATION OF LIABILITY.**

    AS PART OF THE CONSIDERATION AMEC REQUIRES FOR PROVISION OF THE SERVICES INDICATED HEREIN, CLIENT AGREES THAT ANY CLAIM FOR DAMAGES FILED AGAINST AMEC BY CLIENT OR ANY CONTRACTOR OR SUBCONTRACTOR HIRED DIRECTLY OR INDIRECTLY BY CLIENT WILL BE FILED SOLELY AGAINST AMEC OR ITS SUCCESSORS OR ASSIGNS AND THAT NO INDIVIDUAL PERSON SHALL BE MADE PERSONALLY LIABLE FOR DAMAGES RESULTING FROM NEGLIGENCE OR OTHERWISE, IN WHOLE OR IN PART.

    Notwithstanding any other provision of this Agreement, the total liability of AMEC, its officers, directors and employees for liabilities, claims, judgments, demands and causes of action arising under or related to this Agreement, whether based in contract or tort, shall be limited to the total compensation actually paid to AMEC for the services or $50,000, whichever is less. All claims by Client shall be deemed relinquished unless filed within one (1) year after substantial completion of the services. In addition, AMEC shall not be liable for consequential, incidental or indirect damages as a result of the performance of this Agreement.
11. **INSURANCE.** AMEC will maintain insurance for this Agreement in the following types: 1) worker's compensation insurance at statutorily required levels, 2) comprehensive general liability insurance and 3) automobile liability insurance for bodily injury and property damage.
12. **RESPONSIBILITY.** AMEC is not responsible for the completion or quality of work that is dependent upon or performed by the Client or third parties not under the direct control of AMEC, nor is AMEC responsible for their acts or omissions or for any damages resulting therefrom.
13. **EXCLUSIVE USE.** Services provided under this Agreement, including all reports, information or recommendations prepared or issued by AMEC, are for the exclusive use of the Client for the project specified. No other use is authorized under this Agreement. Client will not distribute or convey AMEC's reports or recommendations to any person or organization other than those identified in the project description without AMEC's written authorization. Client releases AMEC from liability and agrees to defend, indemnify, protect and hold harmless AMEC from any and all claims, liabilities, damages or expenses arising, in whole or in part, from such unauthorized distribution.
14. **FIELD REPRESENTATION.** Unless otherwise expressly agreed in writing, AMEC shall not be responsible for the safety or direction of the means and methods at the Client's site of contractors or their employees or agents that are not hired by AMEC, and the presence of AMEC at the Client's site will not relieve the contractor of its responsibilities for performing the work in accordance with applicable regulations, or in accordance with project plans and specifications. If necessary, Client will advise any contractors that AMEC's services are so limited. AMEC will not assume the role of "prime contractor", "principal contractor", "constructor", "controlling employer", or their equivalents unless the scope of such services are expressly agreed in writing.
15. **ENVIRONMENTAL LIABILITY.** Client has and shall retain all responsibility and liability for the environmental conditions on the site. All non-consumed samples shall remain the property of the Client, and Client shall be responsible for and promptly pay for the removal and lawful disposal of samples, cuttings and hazardous materials, unless otherwise agreed in writing. If appropriate, AMEC shall preserve samples obtained for the project for not longer than 30 days after the issuance of any document that includes the data obtained from those samples.
16. **TERMINATION.** This Agreement may be terminated by either party upon ten (10) days written notice to the other. In the event of a termination, Client shall pay for all reasonable charges for work performed and demobilization by AMEC to date of notice of termination. The limitation of liability and indemnity obligations of this Agreement shall be binding notwithstanding any termination of this Agreement.
17. **ASSIGNMENT.** Neither party shall assign its interest in this Agreement without the written consent of the other.

18. **GOVERNING LAW.** This Agreement is governed by the laws of the state of the AMEC office that is entering into this Agreement.
19. **ANTI-BRIBERY.** The Parties undertake to protect the standards of business practice of the other Party at all times and to act in such a way as to uphold the good name and reputation of the other Party and not to do or attempt to do any act or thing which is intended to and/or which in fact causes any damage to or brings discredit upon the other Party and, in particular, the Parties will not:

    (a) Offer or give or agree to give to any director, officer, employee or agent of the other Party or any other entity any gift or consideration of any kind as an inducement or reward for doing or for forbearing to do or for having done or forborne to do any action in relation to the obtaining or execution of any contract or for showing or forbearing to show any favor or disfavor to any person in relation to any contract.
    (b) Induce or attempt to induce any officer, servant or agent of any private or public body to depart from his duties to his employer nor be involved with any such arrangement

Client and AMEC acknowledge that each has read and agrees to these Terms and Conditions, which are incorporated herein and made a part of this Agreement.

CLIENT	**AMEC ENVIRONMENT & INFRASTRUCTURE, INC.**
By: _____	By: _____
Title: _____	Title: _____
Date: _____	Date: _____

ATTACHMENT D

SEA Diversified, Inc.
21 NW 2nd Street
Delray Beach, Florida 33444
Phone: 561-243-4920
Facsimile: 561-243-4957

1900 South Harbor Blvd, Suite 110
Melbourne, Florida 32901
Phone: 321-984-7268
Facsimile: 321-984-7270

January 1, 2014

Forwarded via E-Mail 1-01-14

Ms. Lori S. Brownell, P.E.
Director, Waterfront Engineering
Taylor Engineering, Inc.
10151 Deerwood Park Blvd., Bldg. 300, Suite 300
Jacksonville, FL 32256

Re: Proposal / Agreement for Professional Services
Topographic Survey
FIND Site SJ-20A, St. Johns County
Sea Diversified P.N. 13-2155.A

Dear Ms. Brownell:

Sea Diversified, Inc. (SDI) is pleased to provide the following proposal for professional surveying services pertaining to the above referenced project. The scope of work shall include a topographic survey of FIND site SJ-20A in St. Johns County. As per your electronic correspondence dated December 10, 2013, the scope of survey shall be as follows:

General:
SDI shall provide supervision, field / office support staff and equipment to perform the scope of work described, herewith. All work shall be conducted to the highest level of industry standards and under the responsible charge of a Professional Surveyor and Mapper registered in the State of Florida. All work shall meet or exceed the Minimal Technical Standards set forth by the Florida Board of Professional Surveyors and Mappers. If time permits, deviations from the scope of work shall be addressed via formal approved addendum to the executed Agreement for Professional Services. Otherwise it is noted that field or office work beyond that described herewith, resulting in additional time and efforts, approved verbally by the client or client's representative, shall be considered authorization to perform the work for additional compensation.

Horizontal and Vertical Datum:

Horizontal Data:	Feet, relative to the Florida State Plane Coordinate System, East Zone, North American Datum (NAD), 1983
Vertical Datum:	North American Vertical Datum, 1988 (NAVD88)

SJ-20A, St. Johns County
SJ-20A is a 48 acre +/- site lying immediately south of the St. Augustine Shore subdivision and approximately 1.4 miles west of the Matanzas River. The interior of the site (12 acres +/-) was reportedly cleared in year 2000 or 2001 with the surrounding perimeter buffer area remaining vegetated with sand pine and pine flatwoods. A boundary survey of the site was conducted by St. Johns Survey Company during the early to middle 1990's. An electronic copy (.pdf) of the certified survey was provided by Taylor Engineering. The boundary survey encompassed the entire FIND parcel plus a 60-foot R/W extending from the northeast corner of the site easterly to the Matanzas River. The U.S. Army Corps of Engineers (USCOE) additionally conducted a topographic survey of the site between December 2005 and January 2006. An electronic copy of the survey (.dgn format) was provided by Taylor Engineering. The USCOE topographic survey included only a portion of the FIND site and did not cover the 60-foot R/W.

For this site the scope of survey shall be as follows:

Task One: Topographic Survey Verification
SDI shall verify the condition and accuracy of the survey conducted by the USCOE in 2005 / 2006. This shall include random checks of ground elevations within the interior cleared area and perimeter vegetated areas. SDI shall also confirm the location of the tree / vegetation line bordering the cleared area along with fence lines, above ground utilities and other topographic features denoted on the survey. In the event conditions have changed since the 2005 / 2006 survey by the USCOE, SDI shall notify Taylor Engineering to discuss scope and fees for updating the survey.

Task Two: Topographic Survey of R/W (Optional)
SDI shall collect topographic data along the 1.4 mile R/W corridor extending from the northeast corner of the site easterly to the approximate shoreline of the Matanzas River. Data shall be collected at approximate intervals of one hundred (100) feet along the centerline of the corridor with a minimum of one data point either side of the centerline at the approximate limits of the R/W.

Task Three: Site Feature Survey
SDI shall locate the limits of wetlands delineated by others within the site and R/W. Additionally, SDI will map the location and elevation of geotechnical borings flagged by others within the site and R/W. The total number of borings is estimated at 15 to 20. The environmental firm performing the wetland mapping shall provide a legend depicting habitat environment, such as marsh, wet prairie or wetland forest mix. It is assumed that wetland delineation and borings will be conducted by others in advance of SDI mobilization.

Task Four: Property Corner Verification
Based on the aforementioned boundary survey conducted by others, SDI shall recover and field locate property corner noted on the survey. This information will be used to superimpose the boundary information on the topographic maps. Unrecovered, missing or destroyed property corners shall be brought to the attention of Taylor Engineering to discuss whether such corners need to be reset. It is noted that this task is not considered a Boundary Survey and additional fees will be charged to reestablish boundary corners.

Task Five: Charts and Deliverables
Upon completion of the data collection activities, SDI shall process, review and compile data for mapping. Final charts shall include topographic contours at one-foot intervals with site features (wetland limits and soil borings) depicted along with other topographic features mapped as part of the survey. The charts shall also depict the boundary and R/W information based on the survey conducted by others. Final deliverables shall include four (4) hardcopy plots (24"x36" media) certified by a Florida Licensed Surveyor and Mapper along with electronic CADD files (DWG or DGN) and digital data files (ASCII x,y,z format).

Fee Breakdown:
The survey shall be invoiced on a cost-plus basis with estimated fees as follows:

- Tasks One, Three, Four and Five: $ 27,720.00
- Optional Task Two: $ 9,525.00

Estimated fees are in accordance with the attached staff hour projections and SDI Professional Services Rate Schedule.

ATTACHMENT D

Should you have questions or require additional information please do not hesitate to contact us at your convenience. We appreciate this opportunity to assist you with this project and look forward to hearing from you soon.

Best Regards,

William T. Sadler Jr., P.E., P.S.M.
President

Attachment

WTS/dq

C:\Sea Diversiifed Proposals\Year 2013\FIND Spoil Sites\13-2155.A.St. Johns DMMA.Taylor.doc

ATTACHMENT D

Typical DMMA Conditions (12/23/13)

ATTACHMENT D

SEA

Sea Diversified, Inc.
Staff Hour Estimate / Cost Breakdown
FIND Approved Rate Schedule
2013 - 2014

Topographic Survey
FIND Site SJ-20A
Sea Diversified P.N. 13-2155.A
FIND and Taylor Engineering

Date: January 1, 2014

Site SJ-20A, St. Johns County

Tasks One, Three, Four and Five

Description	Reg Hours	Reg Rate	OT Hours	OT Rate	Unit	Total
Personnel / Crew						
3-Person Topographic Survey Crew	0	$150.00		$225.00	CH	$0.00
2-Person GPS Survey Crew	0	$160.00		$240.00	CH	$0.00
3-Person GPS Survey Crew	64	$215.00	16	$322.50	CH	$18,920.00
Computer / CADD Operator	40	$80.00		$120.00	PH	$3,200.00
Engineering Technician	0	$90.00		$135.00	PH	$0.00
Professional Surveyor and Mapper	16	$125.00		$187.50	PH	$2,000.00
Project Manager	8	$150.00		$225.00	PH	$1,200.00
Expenses						
Per Diem (Field Crew)	24	$100.00		$150.00	PP/PD	$2,400.00
Total Cost:						**$27,720.00**

Site SJ-20A, St. Johns County

Optional Task Two - Topographic Survey of 60-Foot R/W

Description	Reg Hours	Reg Rate	OT Hours	OT Rate	Unit	Total
Personnel / Crew						
3-Person Topographic Survey Crew	0	$150.00		$225.00	CH	$0.00
2-Person GPS Survey Crew	0	$160.00		$240.00	CH	$0.00
3-Person GPS Survey Crew	24	$215.00	6	$322.50	CH	$7,095.00
Computer / CADD Operator	16	$80.00		$120.00	PH	$1,280.00
Engineering Technician	0	$90.00		$135.00	PH	$0.00
Professional Surveyor and Mapper	2	$125.00		$187.50	PH	$250.00
Expenses						
Per Diem (Field Crew)	9	$100.00		$150.00	PP/PD	$900.00
Total Cost:						**$9,525.00**

TAYLOR ENGINEERING, INC.
Delivering Leading-Edge Solutions

January 3, 2013

Mr. Mark Crosely
Executive Director
Florida Inland Navigation District
1314 Marcinski Road
Jupiter, FL 33477

Re: Scope of Professional Engineering Services
FIND: Site DU-8 Final Design for Underground Pipeline Sleeve through Easement
Duval County, Florida

Dear Mr. Crosely:

On behalf of Taylor Engineering, I am pleased to present the attached detailed scope of services (Attachment A) and cost summary (Attachment B) for professional engineering services related to final design of an underground pipeline sleeve through the Site DU-8 pipeline easement. The design will provide for installation of a permanent underground pipeline sleeve through the upland length of the easement.

We have based our proposal on the conceptual design provided in our December 5, 2013 letter report. This design assumes that the entire pipeline sleeve — including the termination points — will lie in the uplands, and the project will therefore not require an environmental permit to construct. If it becomes apparent during our field data collection that any part of the pipeline sleeve or termination points must traverse wetlands, we would coordinate with you to modify this scope of work and cost to include the necessary environmental permitting and mitigation requirements.

Taylor Engineering will complete the work described herein for a fixed fee of $42,441.08. This proposed fee includes subconsultant costs as follows:

- Ellis & Associates, Inc. will complete the geotechnical investigation for a fee of $3,700.
- SEA Diversified, Inc. will provide site survey for a fee of $7,500.

Taylor Engineering will begin work immediately upon receipt of a signed Work Order from FIND, and anticipates completing work within 60 days.

We appreciate this opportunity to serve the FIND. Please contact me if you have questions or comments.

Sincerely,

John Adams, P.E.
Senior Advisor, Waterfront Engineering

10151 DEERWOOD PARK BLVD BLDG 300 STE 300 JACKSONVILLE FL 32256 TEL 904.731.7040
WWW.TAYLORENGINEERING.COM

ATTACHMENT A

Scope of Professional Engineering Services
FIND: Site DU-8 Final Design for
Underground Pipeline Sleeve through Easement
Duval County, Florida

This scope of services describes Taylor Engineering's proposed engineering services in support of final design for Site DU-8 underground pipeline sleeve. The FIND Site DU-8 is located at 13801 Evergreen Drive, Jacksonville, Florida.

The final design will provide for installation of a permanent pipeline sleeve through the upland length of the easement. The upland portion of the pipeline easement lies within property owned by the Mira Vista at Harbortown Condominium Association, Inc. (13846 Atlantic Boulevard, Jacksonville, Florida). This scope of work assumes that FIND will verify through legal counsel that the easement agreement will allow construction of permanent pipeline features. This scope of services does not include coordination with the Mira Vista Condominium Association; we understand that FIND would lead this coordination. This scope of services excludes multiple design iterations or alternative evaluations to accommodate input from the condominium owners.

To the extent possible, we will base our final design on the conceptual design provided in our December 5, 2013 letter report. However, if a design change becomes apparent during our data collection, we will modify the design as appropriate.

This scope of services assumes

1. The entire pipeline sleeve — including the termination points — will lie in the uplands. Therefore, the project will not require an environmental permit to construct.
2. The proposed construction will not conflict with any existing utility lines. This scope of work excludes underground utility location services. As part of the construction drawings, we will require the construction contractor to locate and clear any utility conflicts.
3. Construction may occur using a standard trench box, and the scope of work excludes the design for any temporary bracing or shoring.

If our field data collection and preliminary design efforts invalidate any of the above assumptions, we will coordinate with FIND to modify this scope of services and cost to include any additional necessary engineering or permitting activities.

TASK 1 Field Data Collection

Taylor Engineering will delineate wetland lines, collect survey data, and collect geotechnical data under this task.

Taylor Engineering will delineate and flag the wetland lines at the site for the surveyor to include in its survey drawing. The location of the wetland line will determine the final location of the termination structure on the condominium side of the pipeline sleeve.

Taylor Engineering will contract with Sea Diversified, Inc. to verify and document the easement boundary. Sea Diversified will provide the location of the delineated wetland line and will provide topographic data as well as the location of any other site features along the pipeline easement and near the eastern edge of the DU-8 site. Sea Diversified will also research if any right of ways occur within the pipeline sleeve area, and incorporate this information into the survey drawing. This information will form the basis of the engineering drawings and will provide data to estimate cut and fill volumes for pipeline installation.

Taylor Engineering will coordinate with Ellis & Associates, Inc. to provide geotechnical data along the anticipated pipeline route and at the termination structures. Data collection will include two standard penetration test borings — one at each of the termination structures — to determine the foundation design requirements and five auger borings along the anticipated pipeline route to determine the type of soils and groundwater conditions present. The standard penetration test borings will extend to 50 feet below the ground surface, and the auger borings will extend to 10 – 20 feet below the ground surface.

TASK 2 Engineering Design

Taylor Engineering will use the information collected during Task 1 to lay out the horizontal alignment and vertical grades for the pipeline. Under this task, Taylor Engineering will determine the most suitable material to specify for the pipeline sleeve and will perform structural and geotechnical design calculations to determine the final dimensions, foundation type, and concrete reinforcing details for the termination structures. We have included a site visit by a senior engineer and staff engineer under this task.

TASK 3 Construction Drawings, Contract Documents, Technical Specifications, and Opinion of Probable Construction Cost

Taylor Engineering will prepare digital construction drawings and technical specifications for construction. Construction drawings will provide plan, cross-sectional, and detail views of the proposed pipeline sleeve and termination structures. Taylor Engineering will provide construction drawings in appropriate hard-copy format and in digital (AutoCAD) format, signed and sealed by a Florida Registered Professional Engineer.

We assume FIND will provide Division 0 and 1 documents — Bidding and Contract Documents — and Taylor Engineering will prepare Division 2 and higher documents (Technical Specifications) for construction of the project. We will provide all technical specifications on the construction drawings.

We will prepare an opinion of probable construction cost for the pipeline sleeve project.

We will submit digital copies of these documents at 90%-complete to FIND for review and comment. Upon receipt of review comments, we will finalize these documents and submit revised digital copies and three sets of signed and sealed hard copies of the construction drawings. We will submit three hard copies of the opinion of probable construction cost.

DELIVERABLES

TASK 1

- 1 hard copy of signed and sealed survey drawing and 1 CD/DVD copy of electronic survey data
- 1 hard copy and 1 digital copy of signed and sealed geotechnical engineering report

TASK 3

- 1 digital copy of 90% construction drawings (including technical specifications) and opinion of probable construction cost
- 3 hard copies and a digital copy of 100% signed and sealed construction drawings (including specifications) and opinion of probable construction cost

ATTACHMENT B

Scope of Professional Engineering Services
FIND: Site DU-8 Final Design for
Underground Pipeline Sleeve through Easement
Duval County, Florida

TAYLOR ENGINEERING, INC.
COST SUMMARY BY TASK
P2013-196: FIND: DU-8 Final Design Underground Pipeline Sleeve

TASK 1: Field Data Collection

Labor	Hours	Cost	Task Totals
Vice President	4	740	
Senior Advisor	1	177	
Senior Professional	16	2,064.00	
Project Professional	14	1,470.00	
Technical Editor	1	99	
Administrative	2	112	
Total Man-Hours	38		
Labor Cost			4,662.00

Non-Labor	Units	Cost	
1 field visit from Jax office at 25 miles	25	14.12	
Survey Subcontract - SDI	1	7,500.00	
Geotech Subcontract - Ellis & Associates	1	3,700.00	
Non-Labor Cost		11,214.10	
Fee @ 10%		1121.41	
Total Task 1			16,997.54

TASK 2: Engineering Design

Labor	Hours	Cost	Task Totals
Vice President	3	555	
Senior Advisor	1	177	
Senior Professional	37	4,773.00	
Project Professional	45	4,725.00	
Senior Technical Support	16	1,440.00	
Administrative	1	56	
Total Man-Hours	103		

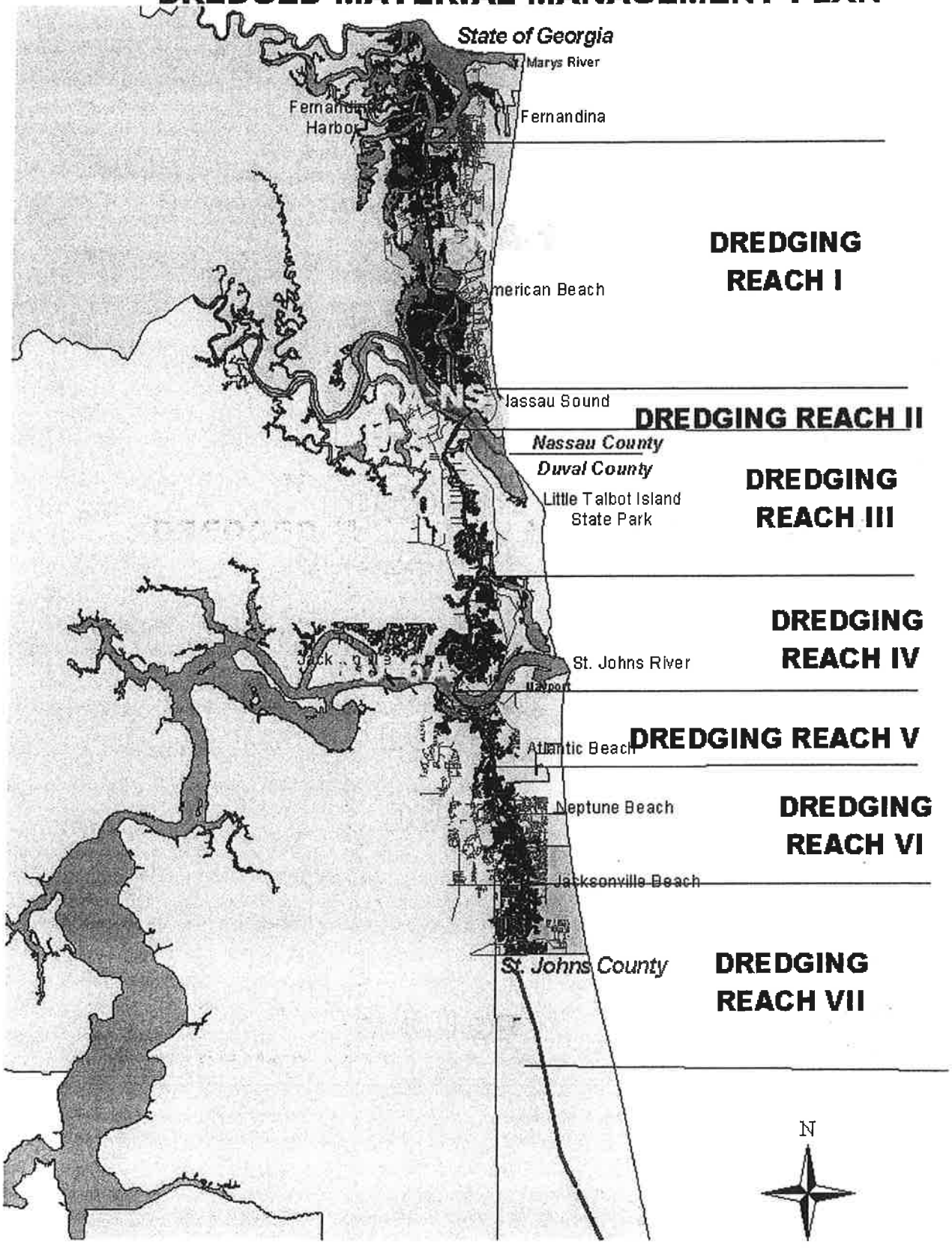
ATTACHMENT B

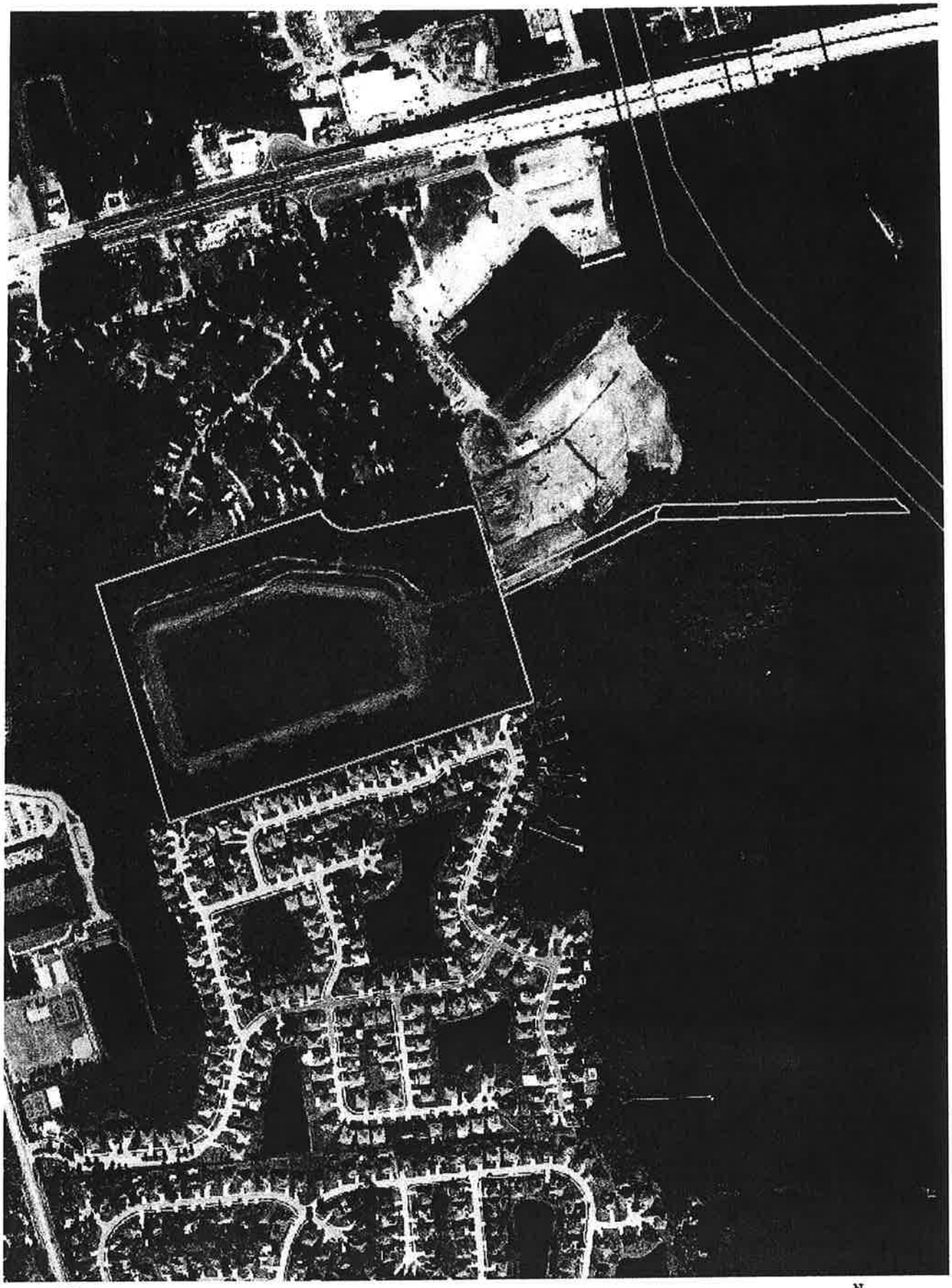
Labor Cost			11,726.00
Non-Labor	Units	Cost	
1 field visit from Jax office at 25 miles	25	14.12	
Non-Labor Cost		14.1	
Fee @ 10%		1.41	
Total Task 2			11,741.54

TASK 3: Construction Drawings, Contract Documents and Technical Specifications, and Opinion of Probable Construction Cost

Labor	Hours	Cost	Task Totals
Vice President	4	740	
Senior Advisor	4	708	
Senior Professional	30	3,870.00	
Project Professional	46	4,830.00	
Senior Technical Support	37	3,330.00	
Administrative	4	224	
Total Man-Hours	125		
Labor Cost			13,702.00
Total Task 3			13,702.00
		Project Total	**$42,441.08**

NASSAU/DUVAL COUNTIES
DREDGED MATERIAL MANAGEMENT PLAN





FIND Easement
FIND Owned
Channel
ICW Right-of-Way

DMMA DU-8

N


Bermuda Rd
Seven Teen Dr
Riverview Dr
DMMA DU-8
Spoonbill St W
Seagrape Ln
614 ft
© 2013 Google
Google earth
Atlantic Holdings
1994
Imagery Date: 1/22/2013 30°19'01.64" N 81°26'28.74" W elev 9 ft eye alt 2690 ft

FLORIDA INLAND NAVIGATION DISTRICT

January 07, 2014

MEMO

To: Mark Crosley, Executive Director

From: Mark Tamblyn, Field Projects Coordinator MT

Attached are the bid results for the Flagler & Volusia County Mowing Project.

The bid submitted by Ashlie Environmental is the lowest bid for the Flagler & Volusia County Mowing Project.

Ashlie Environmental is qualified for the following several reasons:

1) Submitted the lowest Bid of $11, 417.00
2) Their references were favorable and cooperative, and the jobs represented the same types, as the District's project.
3) The bid submittal was complete and it was received prior to the bid closing.

I recommend that the contract be awarded to the low bidder Ashlie Environmental. The bid results have been emailed or faxed to all the bidders for their review.

FLORIDA INLAND NAVIGATION DISTRICT
Flagler & Volusia County Mowing Bid Results

Ashlie Environmental 18420 S. Seagrave St S. Daytona, FL 32119	$ 11, 417.00
Geomill LLC. 6260 Windward Court Orange Park, FL 32003	$ 15, 499.00
R & E Site Development, Inc. P.O. Box 855 Lake Butler, FL 32054	$ 24, 780.00

ATTACHMENT D

FLORIDA INLAND NAVIGATION DISTRICT

FLAGLER AND VOLUSIA COUNTIES SITE MOWING PROJECT

Bid Submittal Form

Bids are to be made on a total cost basis and shall include all costs necessary to complete one mowing event of the five (5) sites in the specification. Bids shall not be qualified, incomplete or include extra costs to be determined later or on a unit basis. One award will be made to the low qualified bidder.

NAME OF FIRM: ASHUE ENVIRONMENTAL

ADDRESS: 1842G S. SEGRAVE ST

S DAYTONA FL 32119

TELEPHONE: 386-523-6890

REFERENCES: (Name, Address, Phone, Contact Person)

1. FWC — MICHAEL WAGNER
100 8TH AV SE — 727-896-8626
ST PETERSBURG FL 33701

2. City of Daytona Beach — TIM FAUVILLE
301 S RIDGEWOOD AV — 386-671-8675
DAYTONA BCH FL 32114

TOTAL PROJECT BID COST $ 11,417

Signature

PRESIDENT

Title

ATTACHMENT C

FLORIDA INLAND NAVIGATION DISTRICT

FLAGLER & VOLUSIA SITE MOWING PROJECT

EQUIPMENT LIST FORM

NAME OF FIRM: Ashlie Environmental

ADDRESS: 1842 B S. Segrave

S. Daytona FL 32119

TELEPHONE AND FAX: 386-523-6890

LISTING OF EQUIPMENT TO BE USED ON THIS DISTRICT PROJECT:

1. Massey Ferguson 5460
   Cab Tractor 4x4

2. Bat Wing
   John Deere CX15

3. Boom Mower
   Tiger 60

4. ZTR Mowers John Deere Z797, Z717, Z9104, Z757

Signature

President
Title

ATTACHMENT D

FLORIDA INLAND NAVIGATION DISTRICT

FLAGLER AND VOLUSIA COUNTIES SITE MOWING PROJECT

Bid Submittal Form

Bids are to be made on a total cost basis and shall include all costs necessary to complete one mowing event of the five (5) sites in the specification. Bids shall not be qualified, incomplete or include extra costs to be determined later or on a unit basis. One award will be made to the low qualified bidder.

NAME OF FIRM: GeoMill LLC (INCUMBENT)

ADDRESS: 6260 WINDWARD CT.

FLEMING ISLAND, FL 32003

TELEPHONE: 904-859-2286

REFERENCES: (Name, Address, Phone, Contact Person)

1. REGINA BELL (ENVIRONMENTAL SERVICES INC.)

7220 FINANCIAL WAY, JACKSONVILLE, FL 32256

904-470-2200;

2. SOUTHEAST ARCHEOLOGICAL SVC.; MICHAEL ARBUTHNOT

904-379-8338

12443 SAN JOSE BLVD. STE 201 JACKSONVILLE, FL 32256

TOTAL PROJECT BID COST $ 15,499.00

Signature

1/3/14

Title

ATTACHMENT C

FLORIDA INLAND NAVIGATION DISTRICT

FLAGLER & VOLUSIA SITE MOWING PROJECT

EQUIPMENT LIST FORM

NAME OF FIRM: GeoMill LLC (INCUMBENT)

ADDRESS: 6280 WINDWARD CT

FLEMING ISLAND, FL 32003

TELEPHONE AND FAX: 904-859-2286 GEOMILLLLC@GMAIL.COM

LISTING OF EQUIPMENT TO BE USED ON THIS DISTRICT PROJECT:

1. JX95 CASE IH 4x4 CAB TRACTOR (95hp) w/ LOADER & FORESTRY TIRES (PRIME MOVER)
2. KUTKWICH SSM-72 SLOPE MOWER w/ROPS 35 HP DIESEL, LOW GROUND PRESSURE ZERO TURN 72" CUT WIDTH MAY UP TO 45° SLOPE
3. HARLDEE BOOM MOWER ATTACHMENT 5' DIA HYDRAULIC BOOM MOWER MOUNTS TO TRACTOR; CUTS UP TO 3" DIA MATERIAL
4. RHINO TURBO 96" DECK MOWER; MOUNTS TO TRACTOR; TWIN SPINDLE

NOTE*

Signature

MANAGING MEMBER
Title

* THIS IS THE PROPER EQUIPMENT THAT HAS SUCCESSFULLY MOWED ALL FL & JO DOMAS SINCE 2007; [redacted]

ATTACHMENT D

FLORIDA INLAND NAVIGATION DISTRICT

FLAGLER AND VOLUSIA COUNTIES SITE MOWING PROJECT

Bid Submittal Form

Bids are to be made on a total cost basis and shall include all costs necessary to complete one mowing event of the five (5) sites in the specification. Bids shall not be qualified, incomplete or include extra costs to be determined later or on a unit basis. One award will be made to the low qualified bidder.

NAME OF FIRM: R&E Site Development, Inc.

ADDRESS: Post office Box 855

Lake Butler, FL 32054

TELEPHONE: 386-496-3867

REFERENCES: (Name, Address, Phone, Contact Person)

1. Dupont Titanium Technologies - Philip Pombier

PO Box 753 Starke, FL 32091

904-964-1216 philip.R.pombier@dupont.com

2. Florida Fish & Wildlife Conservation Commission - Mahmoud Madkour

TOTAL PROJECT BID COST $ 24,780.00

Signature

president

Title

ATTACHMENT C

FLORIDA INLAND NAVIGATION DISTRICT

FLAGLER & VOLUSIA SITE MOWING PROJECT

EQUIPMENT LIST FORM

NAME OF FIRM: R&E Site Development, Inc.

ADDRESS: PO Box 855
Lake Butler, Florida 32054

TELEPHONE AND FAX: 386-496-3867 386-496-4309 F

LISTING OF EQUIPMENT TO BE USED ON THIS DISTRICT PROJECT:

1. Alamo Industrial Boom mower with 17' stick and John Deere 6430 4x4 tractor

2. John Deere 6330 4x4 tractor with 15' batwing Mower

3.

4.

Signature

President
Title

FLORIDA INLAND NAVIGATION DISTRICT

December 09, 2013

To: Potential Bidders
From: Mark M. Tamblyn, Field Projects Coordinator
Subject: Flager & Volusia Counties Site Mowing Project.

Enclosed are the bid documents and scope of work for the referenced project. **Bids are due in the District office no later than 2:00 PM on January 7, 2014.** A bid will consist of the completed bid submittal forms. Sealed bids are required in accordance with Section 5.0 of the Project Specification and shall be mailed or hand delivered.

There will be one award of this contract to the lowest qualified bidder, however, the District reserves the right to not award a contract based on its discretion. The District also reserves the right to expand or reduce the scope of work of this contract upon negotiation with contractor.

Please contact me should you have any questions concerning this matter.

ADMINISTRATIVE OFFICE ON THE INTRACOASTAL WATERWAY IN PALM BEACH COUNTY
1314 MARCINSKI ROAD, JUPITER, FLORIDA 33477-9427 TELEPHONE 561-627-3386 FAX No. 561-624-6480
www.aicw.org

FLORIDA INLAND NAVIGATION DISTRICT
Flagler & Volusia Counties
Site Mowing Project
Bid Package
December 09, 2013

SCOPE OF WORK
FLAGLER & VOLUSIA COUNTIES SITE MOWING PROJECT

December 09, 2013

Dredge Material Management Areas (DMMA's) FL-3, FL-8 and FL-12 are located in Flagler County, and DMMA's V-22 and V-29 are located in Volusia County, Florida. The Florida Inland Navigation District manages dredged materials from the Atlantic Intracoastal Waterway on these sites. The specific locations of these five (5) sites are referenced in Attachments A.

The contractor will mow all designated areas within the five (5) District sites up to four (4) times a year for a period of three (3) years as directed by the District. The contractor will use flat bed mowers for the level planes, and boom mowers for the berms, elevated slopes, perimeter ditches, and other mowable areas on these District sites. Attachments B, figures 1-5 show site locations with aerial photo parameters of the areas to be mowed. Along with the dimensions of the site an estimated area of mowing is depicted in Attachments B, figures 1-5. The contractor will also mow and maintain access trails to District monitoring wells on the sites, if any have already been established.

ATTACHMENT A

FLAGLER AND VOLUSIA COUNTIES SITE MOWING PROJECT

PROJECT SPECIFICATIONS

SECTION 1.0 GENERAL

The Florida Inland Navigation District, hereinafter referred to as the "District", desires to enter into an agreement with a qualified and insured mowing contractor, hereinafter referred to as the "Contractor", to mow five (5) District properties known as V-22 (Oak Hill), V-29 (Daytona Beach), in Volusia and FL-3 (N. Palm Coast), FL-8 (Central, Palm Coast), and FL-12 (S. Palm Coast) in Flagler County.

SECTION 2.0 PROPERTY DESCRIPTION V-22

The location and boundaries of Site V-22 are shown in Attachments B, FIG. 1. The Site is 91 acres. The area to be mowed is approximately 45 acres. This site consists of a very large open space area, it has a fence which runs the perimeter of the site, and monitoring wells which are located throughout the site.

SECTION 2.1 PROPERTY DESCRIPTION V-29

The location and boundaries of the Site V-29 are shown in Attachments B, FIG. 2. The site is 19 acres. The area to be mowed is approximately 9 acres. This site consists of a large berm area, a landscaped area, it has perimeter ditches which lie outside of the berm area, and monitoring wells are on site, the extent of the mowing will be within the fenced area of the site.

SECTION 2.2 PROPERTY DESCRIPTION FL-3

The location and boundaries of the Site FL-3 are shown in Attachments B, FIG. 3. The Site is 103 acres. The area to be mowed is approximately 50 acres. This site consists of a very large open space area, it has a fence which runs the perimeter of the site, there are some natural ditches that run along the road way through the center of the site.

SECTION 2.3 PROPERTY DESCRIPTION FL-8

The location and boundaries of the Site FL-8 are shown in Attachments B, FIG. 4. The Site is 213 acres. The area to be mowed is approximately 115 acres. This site consists of a very large open space area, it has a fence which runs the perimeter of the site, there are some natural ditches that run through the center of the site.

SECTION 2.4 PROPERTY DESCRIPTION FL-12

The location and boundaries of the Site FL-12 are shown in Attachments B, FIG. 5. The Site is 37 acres. The area to be mowed is approximately 14 acres. This site consists of a large open space area, it has a fence which runs the perimeter of the site, and there has been a buffer revegetation project which has placed plant materials along the entire linear property line. The linear buffer and wetland area that will not be entered or mowed.

SECTION 3.0 PROJECT DESCRIPTION

Project work will consist of the routine mowing of level grassed areas with conventional high production style mowing equipment and the mowing of sloped areas that will require the use of specialized equipment. Hand labor and small machine mowers may be required to perform the specified work in certain areas or during certain times of the year.

Vegetation to be mowed will consist of all grasses, part grass and part weed growth, or all weed growth within the areas to be mowed. The areas to be mowed consist of a dike, which includes the top, back and front slopes. The dike ramps, the grassed areas around the dike and the perimeter ditching. If the interior of the dike is ponded it will not require mowing.

SECTION 3.1 PROJECT DESCRIPTION CONTINUED

The dike slopes will be mowed with equipment that will not damage the dike or the grasses. These areas will normally require specially designed mowing equipment such as boom mowers. Ditch areas that are saturated with water or too wet for standard mowing equipment will be required to be mowed by hand or specialized mowing equipment. No rutting or damage to the ditches or the dike will be allowed. Damage of this nature will be the contractor's responsibility to repair at no cost to the District. All grasses and vegetation will be cut to a height of six (6") inches maximum.

The sites will be mowed up to four (4) times annually on an as needed basis. The District will determine the mowing schedule. The District reserves the right to expand this contract as additional properties are developed and require mowing or extend the contract for another year.

SECTION 4.0 EQUIPMENT

The Contractor will be required to use the minimum of one (1) flat bed mower or bat wing mower for the level surfaces, and one (1) slope or boom mower to mow the surfaces which are on contoured slopes on these Districts sites. The equipment used by the contractor must be in good repair and shall be maintained as to produce a clean, sharp cut and uniform distribution of the cuttings at all times. The Contractor will provide a complete list of the equipment, which will be utilized on these District sites. This list will be provided within the bid pack and should accompany the bid form upon submittal.

SECTION 4.1 FUELING

Fueling on site will be conducted with authorized and approved fueling containers and or equipment to avoid spillage. The fueling activities shall be conducted on level ground and on the most appropriate a hard, road base surface on site. All spills shall be immediately reported to the District. The spill shall be immediately contained, and the impacted soil shall be excavated and placed into an impervious container to be removed from the District property by the Contractor.

SECTION 5.0 BIDS

Bids shall be submitted on Attachment D the Bid Submittal Form. The total bid amount shall include all costs to perform one (1) mowing event of all sites. Qualified bids or bids with exceptions will not be accepted. A qualified bid will also include a completed Equipment List Form which is Attachment C. Bids will be made by sealed bid only. The sealed bid shall be marked clearly on its outside "Sealed Bid Flagler–Volusia Mowing Project" and shall be submitted inside another envelope. All bids are due by 2:00 pm January 7, 2014. Bid information will be located on the District's website at aicw.org Under the bid link Flagler/Volusia Mowing file. Bidders should check the website for any bid modifications prior to submitting their bid.

SECTION 6.0 PROJECT MANAGER

The District's project manager for this agreement will be Mark M. Tamblyn. He can be contacted at the District office 1314 Marcinski Road, Jupiter, Florida 33477 Telephone (561) 627-3386, Fax (561) 624-6480.

SECTION 7.0 PROJECT SUPERVISION

The District's Project Manager shall give notice regarding the approximate date and time of the initial mowing and completion of the mowing. The project manager will make available personnel to assist in the resolution of any questions or problems that may arise. The District sites are locked and secured, and will remain this way prior to mowing and upon completions of mowing activities. The contractor will maintain security of gates and notify the District of damage or vandalism to them at the time of mowing events.

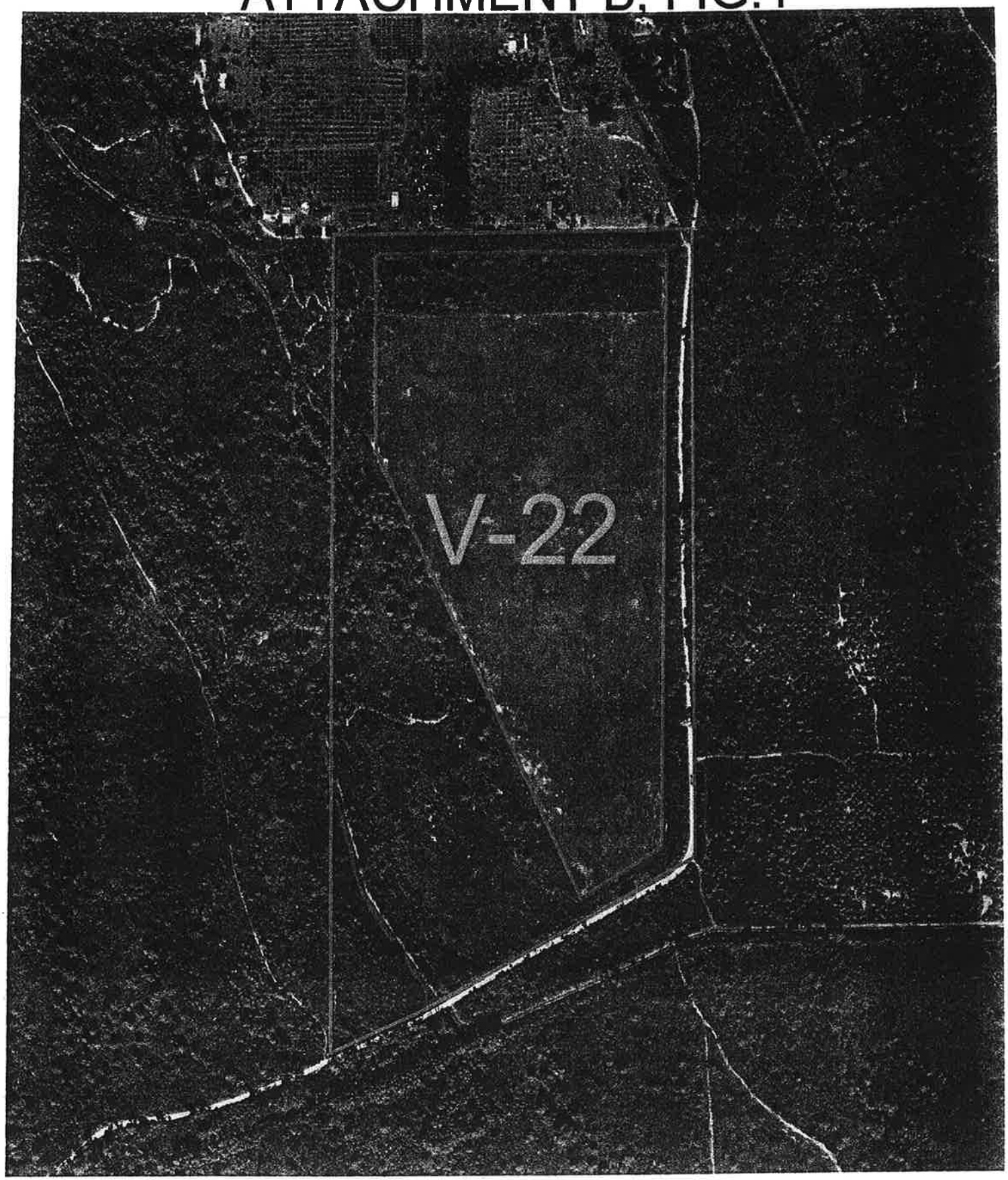
SECTION 8.0 INSURANCE REQUIREMENTS

The contractor will be required to provide a minimum of $ 500,000.00 insurance policy covering general liability and workman's compensation coverage with the District as an insured party.

SECTION 9.0 PAYMENT

The contactor will submit a District certification form along with an invoice at the completion of a mowing event. Upon District inspection and approval the District will release payment to the contractor.

ATTACHMENT B, FIG.1



ATLANTIC INTRACOASTAL FLORIDA NAVIGATION INLAND DISTRICT

N
W E
S

LEGEND

- MOWING AREA
- FIND OWNED

ATTACHMENT B, FIG. 2

ATLANTIC
FLORIDA INLAND
NAVIGATION DISTRICT
INTRACOASTAL

N
W E
S

LEGEND

- MOWING AREA
- FIND OWNED

ATTACHMENT B, FIG. 3

ATLANTIC FLORIDA INLAND NAVIGATION DISTRICT INTRACOASTAL

N
W E
S

LEGEND

- MOWING AREA
- FIND OWNED

ATTACHMENT B, FIG. 4

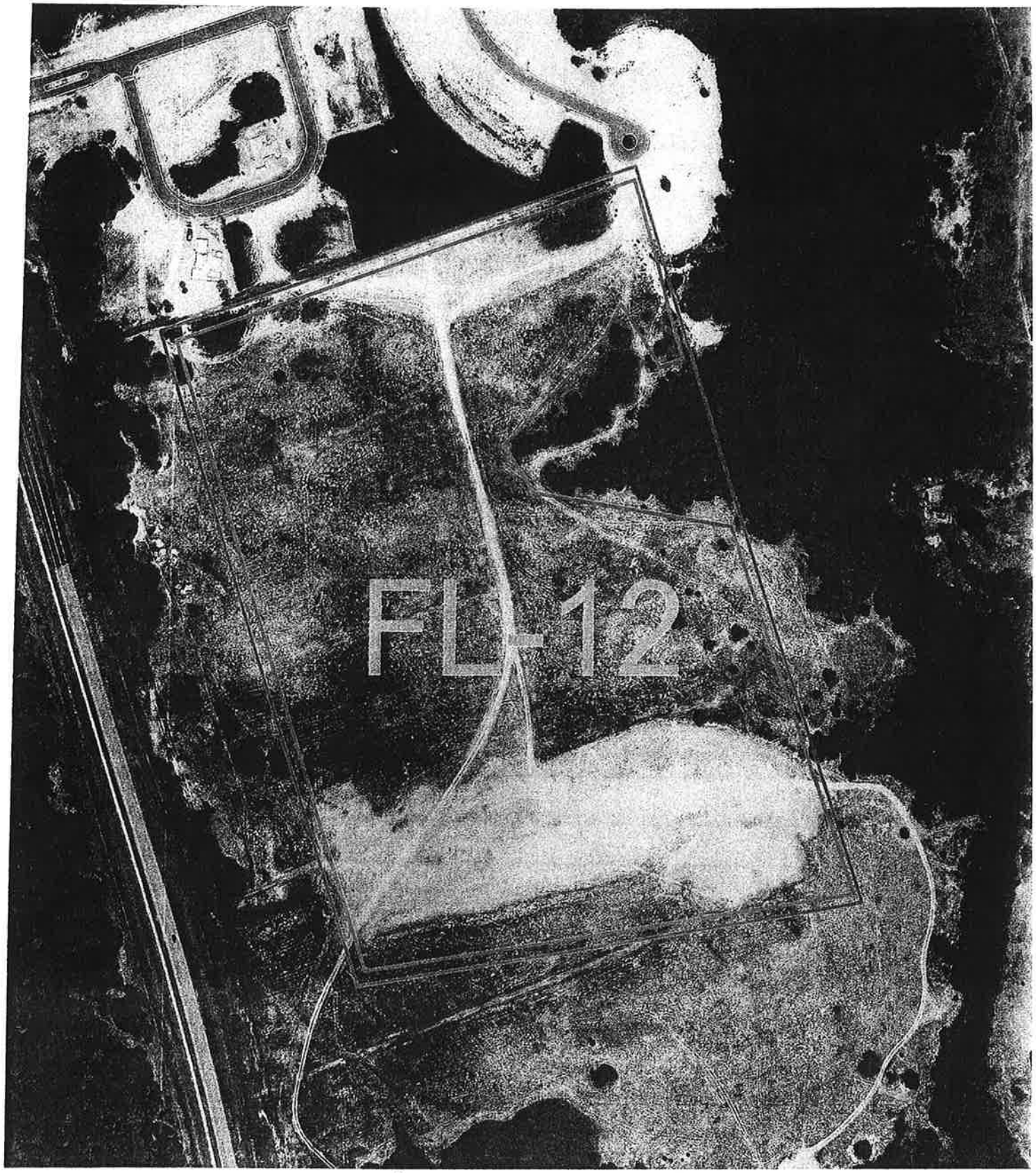
ATLANTIC INTRACOASTAL
FLORIDA INLAND NAVIGATION DISTRICT

N
W E
S

LEGEND

- MOWING AREA
- FIND OWNED

ATTACHMENT B, FIG. 5



ATLANTIC FLORIDA INLAND NAVIGATION DISTRICT INTRACOASTAL

N
W E
S

LEGEND

MOWING AREA

FIND OWNED

ATTACHMENT C

FLORIDA INLAND NAVIGATION DISTRICT

FLAGLER & VOLUSIA SITE MOWING PROJECT

EQUIPMENT LIST FORM

NAME OF FIRM:_____

ADDRESS:_____

_____

TELEPHONE AND FAX:_____

LISTING OF EQUIPMENT TO BE USED ON THIS DISTRICT PROJECT:

1._____

_____

_____

2._____

_____

_____

3._____

_____

_____

4._____

_____

_____
Signature

_____
Title

ATTACHMENT D

FLORIDA INLAND NAVIGATION DISTRICT

FLAGLER AND VOLUSIA COUNTIES SITE MOWING PROJECT

Bid Submittal Form

Bids are to be made on a total cost basis and shall include all costs necessary to complete one mowing event of the five (5) sites in the specification. Bids shall not be qualified, incomplete or include extra costs to be determined later or on a unit basis. One award will be made to the low qualified bidder.

NAME OF FIRM: _____

ADDRESS: _____

_____

TELEPHONE: _____

REFERENCES: (Name, Address, Phone, Contact Person)

1._____

_____

_____

2._____

_____

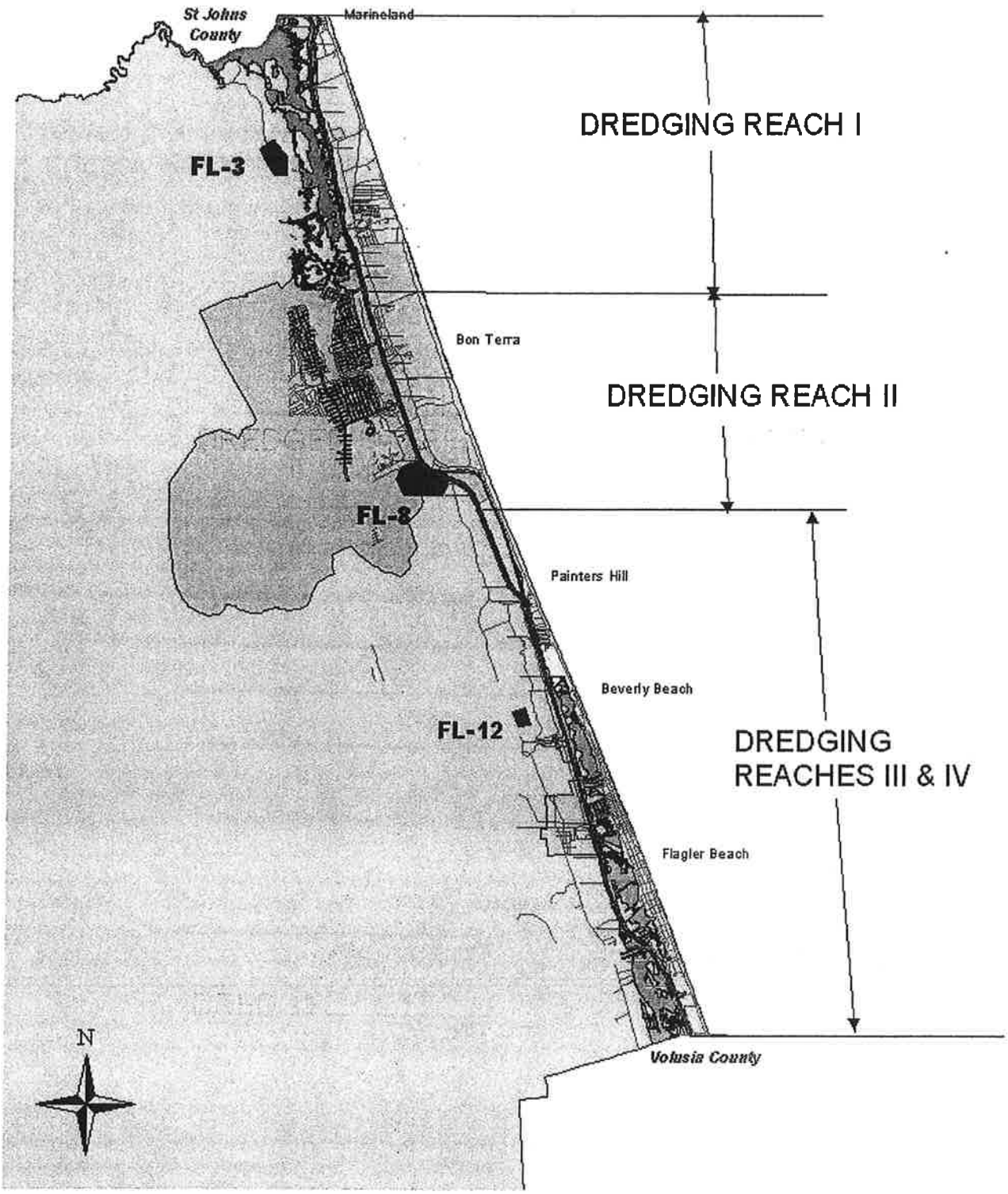
_____

TOTAL PROJECT BID COST $_____

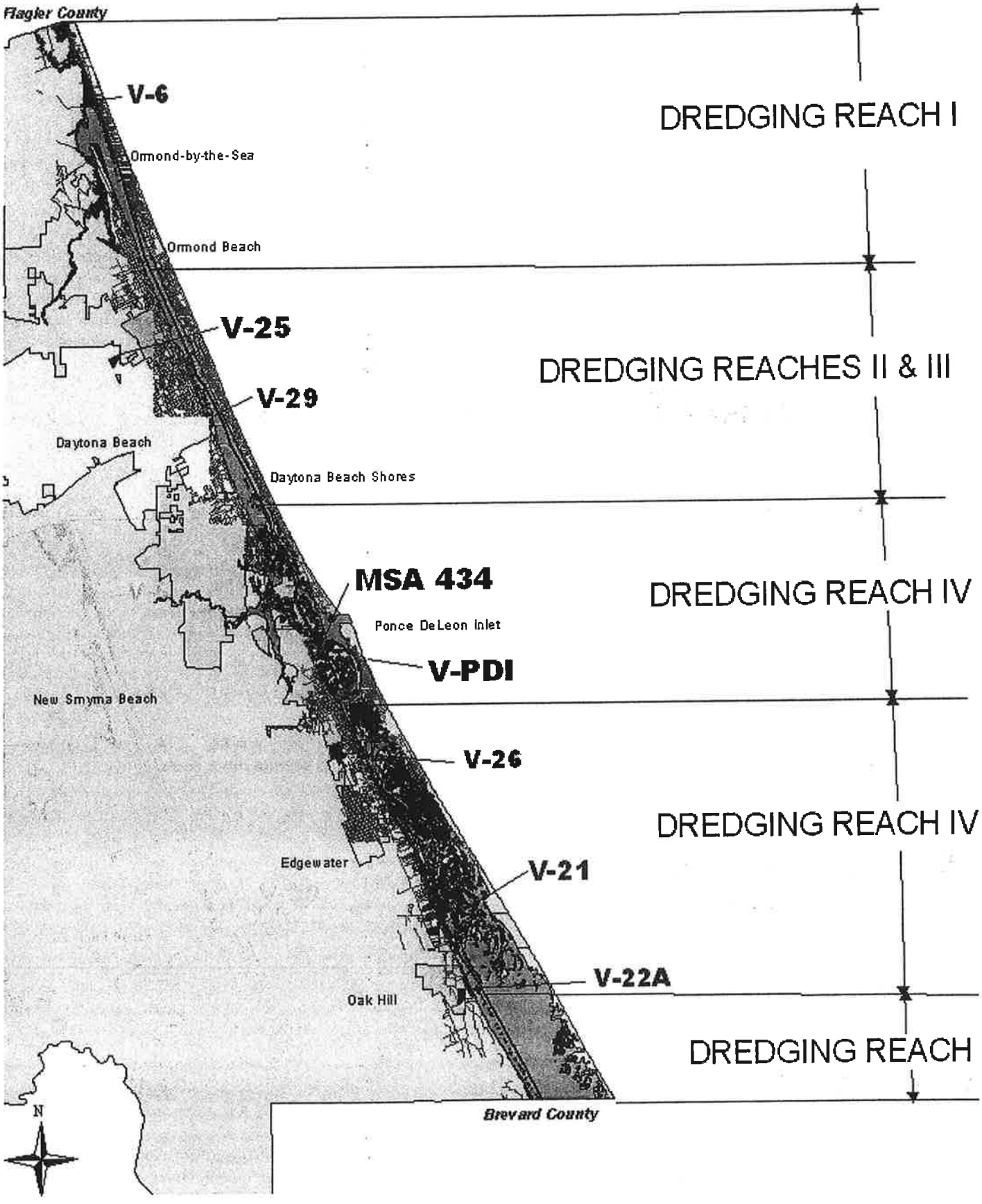
_____
Signature

_____
Title

INTRACOASTAL WATERWAY
DREDGING REACHED AND
DREDGED MATERIAL MANAGEMENT AREAS
IN FLAGLER COUNTY



INTRACOASTAL WATERWAY
DREDGING REACHES AND
DREDGED MATERIAL MANAGEMENT AREAS
IN VOLUSIA COUNTY



FLORIDA INLAND NAVIGATION DISTRICT

January 07, 2014

MEMO

To: Mark Crosley, Executive Director

From: Mark Tamblyn, Field Projects Coordinator MT

Attached are the bid results for the Volusia County Monitoring Well Project

The bid submitted by Bonn Environmental Services & Technologies, Inc. is the lowest bid for the Volusia County Well Monitoring Project.

Bonn Environmental Services & Technologies, Inc. has qualified for the following several reasons:

1) Submitted the lowest Bid of $21, 300.00 / $ 1, 775.00.
2) Their references were favorable and cooperative, and the jobs represented the same types, as this District project.
3) The bid submittal was received prior to the closing.
4) The contractor has worked with the District on other projects.

I recommend that the contract be awarded to the low bidder Bonn Environmental Services & Technologies, Inc. The bid results have been emailed or faxed to all the bidders for review.

FLORIDA INLAND NAVIGATION DISTRICT
Volusia County Well Monitoring Bid Results

Bonn Environmental Services & Technology, Inc. P.O. Box 2621 Ponte Vedra, FL 32004	$ 21, 300.00 / $ 1, 775.00
Envirodesign Associates, Inc. 298 Pineapple Grove Way Delray Beach, FL 33444	$ 21, 540.00 / $ 1, 795.00
SCS Engineers, 6115 Lyons Road Coconut Creek, FL 33073	$ 29, 994.00 / $ 2, 499.50
Professional Service Industries, Inc. 1748 33rd Street Orlando, FL 32839	$ 49, 180.00 / $ 4, 098.33
WRS Infrastructure & Environment, Inc. 221 Hobbs Street, Suite 108 Tampa, FL 33619	$ 61, 868.67 / $ 5, 155.72

FLORIDA INLAND NAVIGATION DISTRICT

SITES V-22, V-26, V-29
WELL MONITORING PROJECT
3-yr qtrly GW Monitoring - Volusia Co.
FAX: 561-624-6480, due 1/7/14 1600hrs

Bid Submittal Form

Bids are to be made on a total cost basis with an award made to the low qualified bidder.

NAME OF FIRM: **Bonn Environmental Services & Technologies, Inc.**

ADDRESS: **P.O. Box 2621**
Ponte Vedra Beach, FL 32004

TELEPHONE: **904-683-0930; cell 904-504-7192**

REFERENCES: (Name, Address, Phone, Contact Person)

1. **City of Jacksonville, Environmental Quality Division**
214 N Hogan St, 5th Floor, Jacksonville, FL 32202
904-255-7100; Allene Rachal, P.G. (Mgr)

2. **FDEP-NE District**
7777 Baymeadows Way W., Suite 100, Jacksonville, FL 32256
904-256-1700; Rick Rachal, P.G. (Mgr)

TOTAL PROJECT BID COST $ **21,300.00 ($1,775.00 x 12 events)**

Gregory M. Bonn
Signature

President/CEO
Title

FLORIDA INLAND NAVIGATION DISTRICT

SITES V-22, V-26, V-29
WELL MONITORING PROJECT

Bid Submittal Form

Bids are to be made on a total cost basis with an award made to the low qualified bidder.

NAME OF FIRM: ENVIRODESIGN ASSOCIATES, INC.

ADDRESS: 298 PINEAPPLE GROVE WAY

DELRAY BEACH, FLORIDA 33444

TELEPHONE: (561) 274-6500 X105 Office, (561) 706-6360 Cell

REFERENCES: (Name, Address, Phone, Contract Person)

1. **Charlie Isiminger** - Isiminger & Stubbs Engineering, Inc.

   649 U.S. 1, North Palm Beach, FL 33408

   Office (561) 881-0003

2. **Gary Exner** - Advantage Consulting, LLC

   410 Lake Lenelle Drive, Chuluota, FL 32766

   Office (407) 365-4662; Cell (407) 312-5066

COST PER SAMPLING EVENT $ 1,795.00 / Event

TOTAL PROJECT COST TWELVE (12) SAMPLING EVENTS $ 21,540.00

Signature: Joseph A. Pike

President
Title

FLORIDA INLAND NAVIGATION DISTRICT

SITES V-22, V-26, V-29
WELL MONITORING PROJECT

Bid Submittal Form

Bids are to be made on a total cost basis with an award made to the low qualified bidder.

NAME OF FIRM: SCS Engineers

ADDRESS: 6115 Lyons Road

Coconut Creek, Florida 33073

TELEPHONE: (954) 571-9200

REFERENCES: (Name, Address, Phone, Contact Person)

1. Oleta Partners LLC

15045 Biscayne Boulevard, North Miami, FL 33181

Contact: Darryl Lee, P.E., Development Project Manager, (305) 442-6531

2. City of Miami

444 SW 2nd Avenue, 8th Floor, Miami, FL 33130

Contact: Jeovanny Rodriguez, Assistant Director, (305) 416-1255

TOTAL PROJECT BID COST: $ 29,994.00 ($2,499.50 per sampling event)

Myles Clewner

Signature

Project Director

Title

FLORIDA INLAND NAVIGATION DISTRICT

SITES V-22, V-26, V-29
WELL MONITORING PROJECT

Bid Submittal Form

Bids are to be made on a total cost basis with an award made to the low qualified bidder.

NAME OF FIRM: Professional Service Industries, Inc.

ADDRESS: 1748 33rd Street, Orlando, FL 32839

Vicki Lewis, Env Ser Dept Mgr, Email: vicki.lewis@psiusa.com

TELEPHONE: Phone: 407-304-5560, Fax:407-304-5561

REFERENCES: (Name, Address, Phone, Contact Person)

1. City of Orlando, 5100 L.B. McLeod Road, Orlando, Florida 32811
   Phone: (407) 246-2664, Fax: (407) 246-2886
   Mr. Dan Dashtaki, Email: dan.dashtaki@ci.orlando.fl.us
2. McLin & Burnsed, 1028 Lake Sumter Landings, The Villages, Florida 32162
   Phone: (352) 753-4690, Fax: (352) 751-4993
   Mr. Steve Roy, Email: SteveR@mclinburnsed.com

TOTAL PROJECT BID COST $ 49,180.00 / 4098.33 / Event

Vicki B. Lewis
Signature

DEPARTMENT MANAGER - ENVIRONMENTAL SERVICES
Title

FLORIDA INLAND NAVIGATION DISTRICT

SITES V-22, V-26, V-29
WELL MONITORING PROJECT

Bid Submittal Form

Bids are to be made on a total cost basis with an award made to the low qualified bidder.

NAME OF FIRM: WRS Infrastructure & Environment, Inc.

ADDRESS: 221 Hobbs Street, Suite 108
Tampa, FL 33619

TELEPHONE: (813) 684-4400

REFERENCES: (Name, Address, Phone, Contact Person)

1. USACE Jacksonville District - C-37
939 Mall Ring Road, Sebring, FL 33870; (863)471-1741
Erin M. Duffy, PE, USACE Jacksonville District, Sebring Resident Office

2. Florida Fish and Wildlife Conservation Commission
3377 E. US Hwy 90, Lake City, FL 32055; (970)493-3700
Scott Johns, District Wildlife Biologist

TOTAL PROJECT BID COST $ 61,868.67 / 5155.72 per Qtr.

Signature

Vice President / General Manager
Title

FLORIDA INLAND NAVIGATION DISTRICT

December 09, 2013

To: Potential Bidders
From: Mark M. Tamblyn, Field Projects Coordinator
Subject: Monitoring Well sampling at Sites V-22, V-26, V-29.

Enclosed are the bid documents and scope of work for the referenced project. **Bids are due in the District office no later than 4:00 PM on January 07, 2014.** A bid will consist of the completed bid submittal form. Bids may be faxed, mailed or hand delivered.

There will be one award of this contract to the lowest qualified bidder, however, the District reserves the right to not award a contract based on its discretion. The District also reserves the right to expand or reduce the scope of work of this contract upon negotiation with contractor.

Please contact me should you have any questions concerning this matter.

ADMINISTRATIVE OFFICE ON THE INTRACOASTAL WATERWAY IN PALM BEACH COUNTY
1314 MARCINSKI ROAD, JUPITER, FLORIDA 33477-9427 TELEPHONE 561-627-3386 FAX No. 561-624-6480
www.aicw.org

FLORIDA INLAND NAVIGATION DISTRICT
Volusia County
Monitoring Well Sampling
Bid Package
December 09, 2013

SCOPE OF WORK
MONITORING WELL SAMPLING
SITES V-22, V-26, V-29
VOLUSIA COUNTY, FLORIDA
DECEMBER 09, 2013

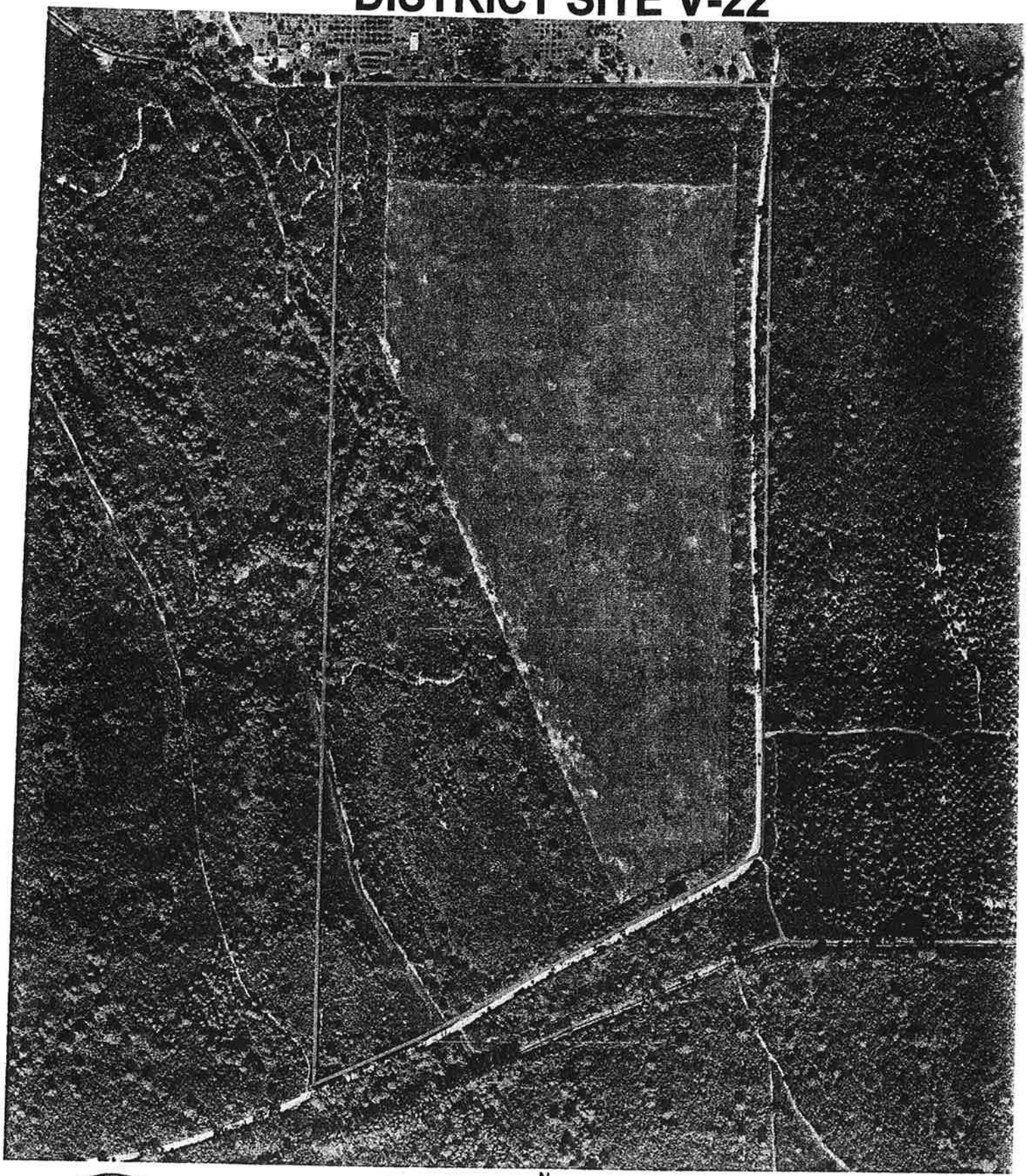
Dredge Material Management Areas V-22, V-26, V-29 are located in Volusia County, Florida. The Florida Inland Navigation District owns, operates and manages dredged materials from the Atlantic Intracoastal Waterway on these sites. Monitoring well locations are referenced in Attachments A, B, and C. The specific locations of the (3) three sites are referenced in Attachments A, Fig. 1, Attachment B, Fig. 1, and Attachment C, Fig.1.

The contractor will sample the seventeen (17) monitoring wells located on the three (3) District sites on a quarterly basis for (3) three years. The sampling will be conducted under Florida Department of Environmental Protection, Standard Operating Procedures (FDEP-SOP-001/01), FS-2200 for groundwater sampling. The sampling analysis will consist of chloride, PH, TDS, and turbidity.

A field sampling data sheet will be prepared for each well sampled that will include depth to water and a calculation of well volume for purging. One field equipment blank and one duplicate sample will be taken during each quarterly sampling round in order to meet Quality Assurance/Quality Control (QA/QC) requirements. Each sample will be analyzed by a state certified testing laboratory in accordance to the following: EPA Method 300 for dissolved chloride, EPA Method 150.1 for PH, EPA Method 160.1 for TDS, and EPA Method 180.1 for turbidity. A Chain of Custody form will be completed properly identifying sample locations, sample type, sampler, etc.

Quarterly results will be reported in a cumulative table. Original copies of laboratory data and field sampling sheets will be attached to the quarterly report. Each quarterly report will be reviewed, signed and sealed by a State of Florida licensed Professional Geologist. The District requires the report be submitted within 15 days of completion of sampling.

ATTACHMENT A
DISTRICT SITE V-22



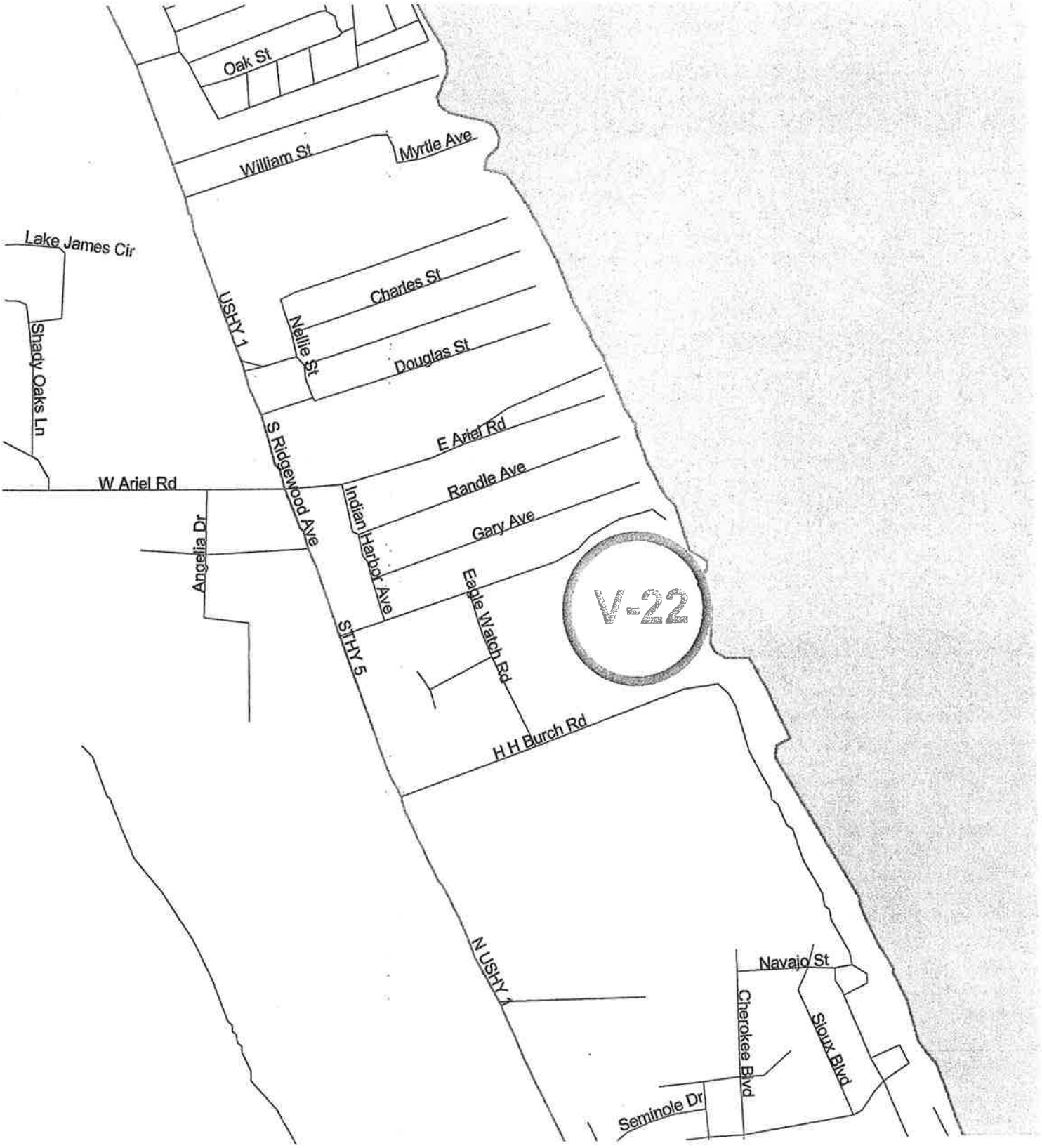
ATLANTIC FLORIDA INLAND NAVIGATION DISTRICT INTRACOASTAL

N
W E
S

LEGEND

Wells
FIND Owned

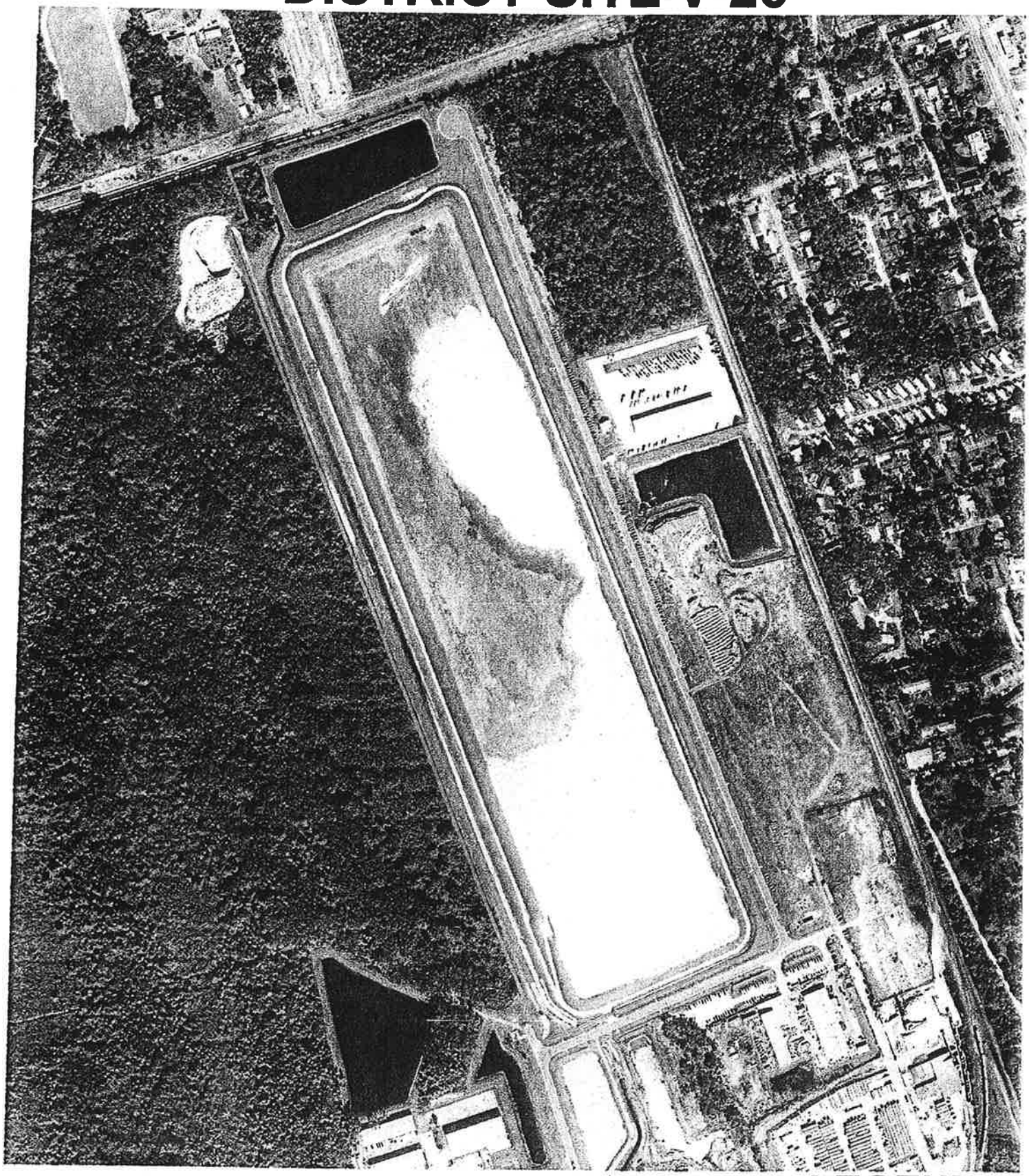
ATTACHMENT A, FIG. 1
V-22 LOCATION MAP



LEGEND

DISTRICT SITE V-22

ATTACHMENT B
DISTRICT SITE V-26



ATLANTIC INTRACOASTAL FLORIDA INLAND NAVIGATION DISTRICT

N
W E
S

LEGEND

- Wells
- FIND Owned

ATTACHMENT B, FIG. 1
V-26 LOCATION MAP

LEGEND

DISTRICT
SITE V-26

ATTACHMENT C
DISTRICT SITE V-29

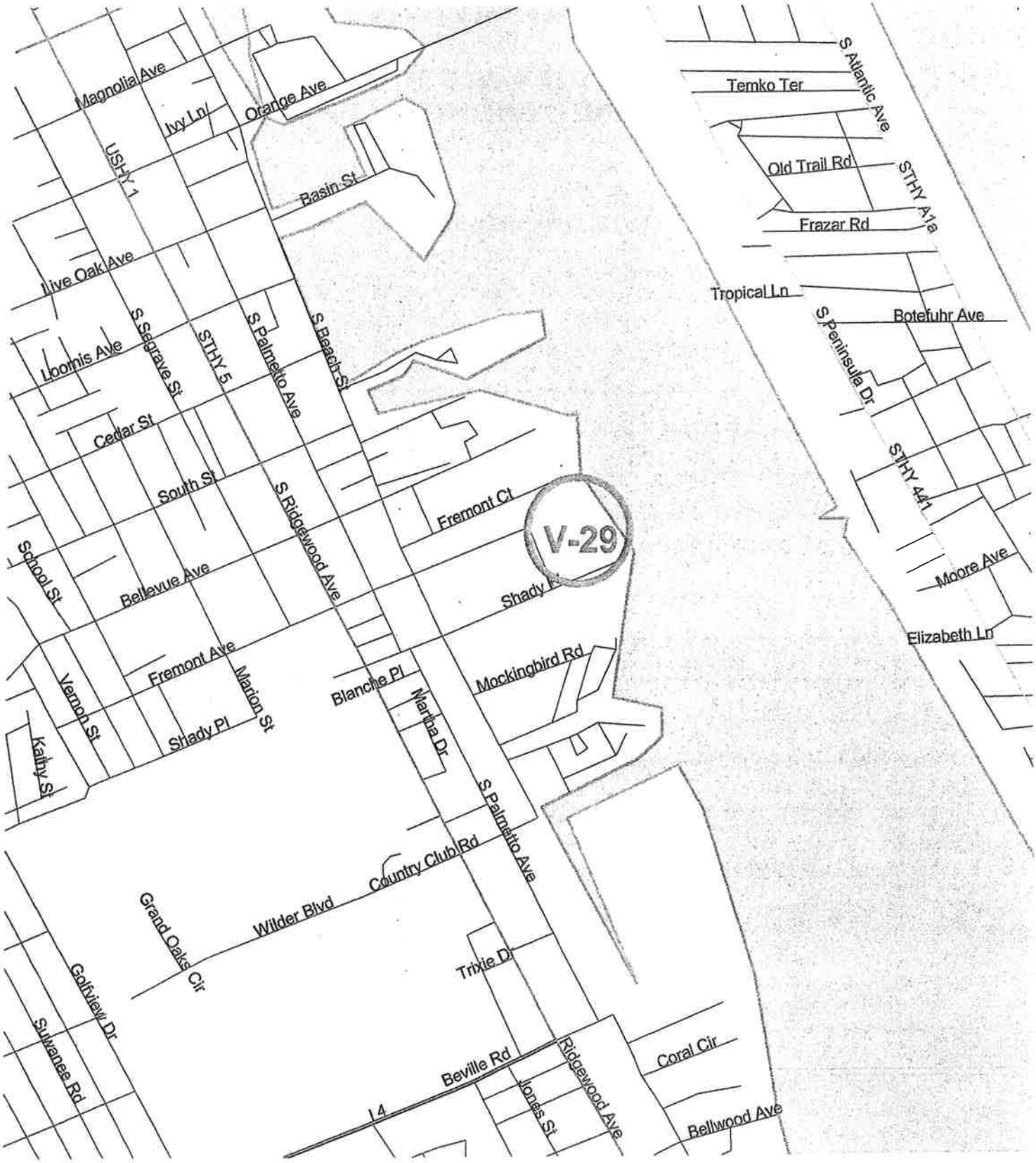
ATLANTIC FLORIDA INLAND NAVIGATION DISTRICT INTRACOASTAL

N
W E
S

LEGEND

Wells
FIND Owned

ATTACHMENT C, FIG. 1
V-29 LOCATION MAP



N
W E
S

LEGEND

DISTRICT
SITE V-29

FLORIDA INLAND NAVIGATION DISTRICT

SITES V-22, V-26, V-29
WELL MONITORING PROJECT

Bid Submittal Form

Bids are to be made on a total cost basis with an award made to the low qualified bidder.

NAME OF FIRM:_____

ADDRESS:_____

_____

TELEPHONE:_____

REFERENCES: (Name, Address, Phone, Contact Person)

1._____

_____

_____

2._____

_____

_____

TOTAL PROJECT BID COST $_____

_____
Signature

_____
Title

FLORIDA INLAND NAVIGATION DISTRICT

December 09, 2013

To: Potential Bidders
From: Mark M. Tamblyn, Field Projects Coordinator
Subject: Monitoring Well sampling at Sites BV-2C, BV-4B, BV-11, BV-52.

Enclosed are the bid documents and scope of work for the referenced project. **Bids are due in the District office no later than 4:00 PM on January 8, 2014.** A bid will consist of the completed bid submittal form. Bids may be faxed, mailed or hand delivered.

There will be one award of this contract to the lowest qualified bidder, however, the District reserves the right to not award a contract based on its discretion. The District also reserves the right to expand or reduce the scope of work of this contract upon negotiation with contractor.

Please contact me should you have any questions concerning this matter.

ADMINISTRATIVE OFFICE ON THE INTRACOASTAL WATERWAY IN PALM BEACH COUNTY
1314 MARCINSKI ROAD, JUPITER, FLORIDA 33477-9427 TELEPHONE 561-627-3386 FAX No. 561-624-6480
www.aicw.org

FLORIDA INLAND NAVIGATION DISTRICT
Brevard County
Monitoring Well Sampling
Bid Package
December 9, 2013

SCOPE OF WORK
MONITORING WELL SAMPLING
SITES BV-2C, BV-4B, BV-11, BV-52
BREVARD COUNTY, FLORIDA
DECEMBER 09, 2013

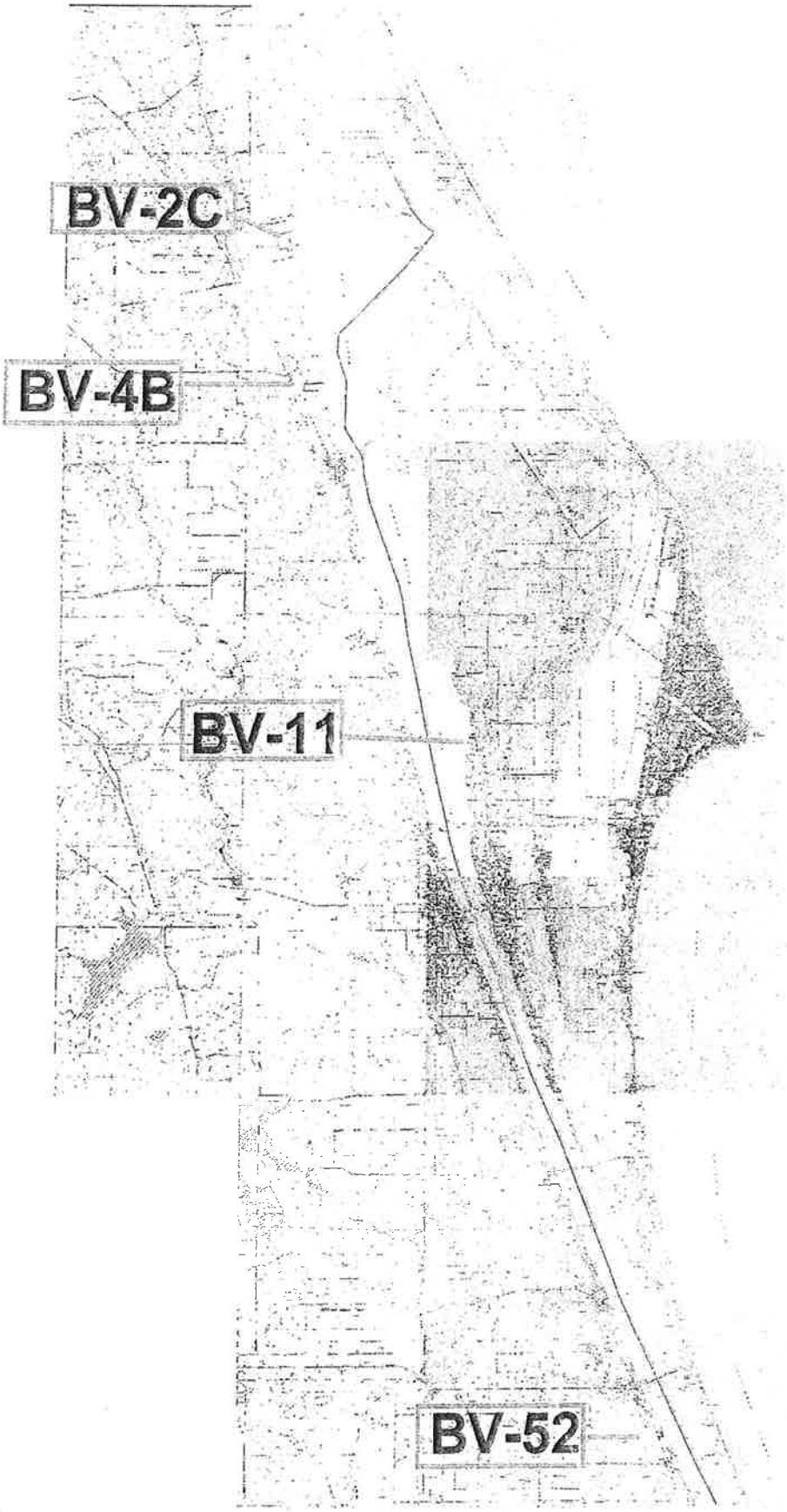
Dredge Material Management Areas BV-2C, BV-4B, BV-11, BV-52 are located in Brevard County, Florida. The Florida Inland Navigation District owns, operates and manages dredged materials from the Atlantic Intracoastal Waterway on these sites. The specific locations of the (4) four sites are referenced in Attachments A, B, C, D, E.

The contractor will sample the twenty-seven (27) monitoring wells located on the subject sites on a quarterly basis for (3) three years. The sampling will be conducted under Florida Department of Environmental Protection, Standard Operating Procedures (FDEP-SOP-001/01), FS-2200 for groundwater sampling. The sampling analysis will consist of chloride, PH, TDS, and turbidity. Monitoring well ID numbers, X+Y coordinates of each well, and well depths are referenced in Attachment F.

A field sampling data sheet will be prepared for each well sampled that will include depth to water and a calculation of well volume for purging. One field equipment blank and one duplicate sample will be taken during each quarterly sampling round in order to meet Quality Assurance/Quality Control (QA/QC) requirements. Each sample will be analyzed by a state certified testing laboratory in accordance to the following: EPA Method 300 for dissolved chloride, EPA Method 150.1 for PH, EPA Method 160.1 for TDS, and EPA Method 180.1 for turbidity. A Chain of Custody form will be completed properly identifying sample locations, sample type, sampler, etc.

Quarterly results will be reported in a cumulative table. Original copies of laboratory data and field sampling sheets will be attached to the quarterly report. Each quarterly report will be reviewed, signed and sealed by a State of Florida licensed Professional Geologist. The District requires the report be submitted within 15 days of completion of sampling.

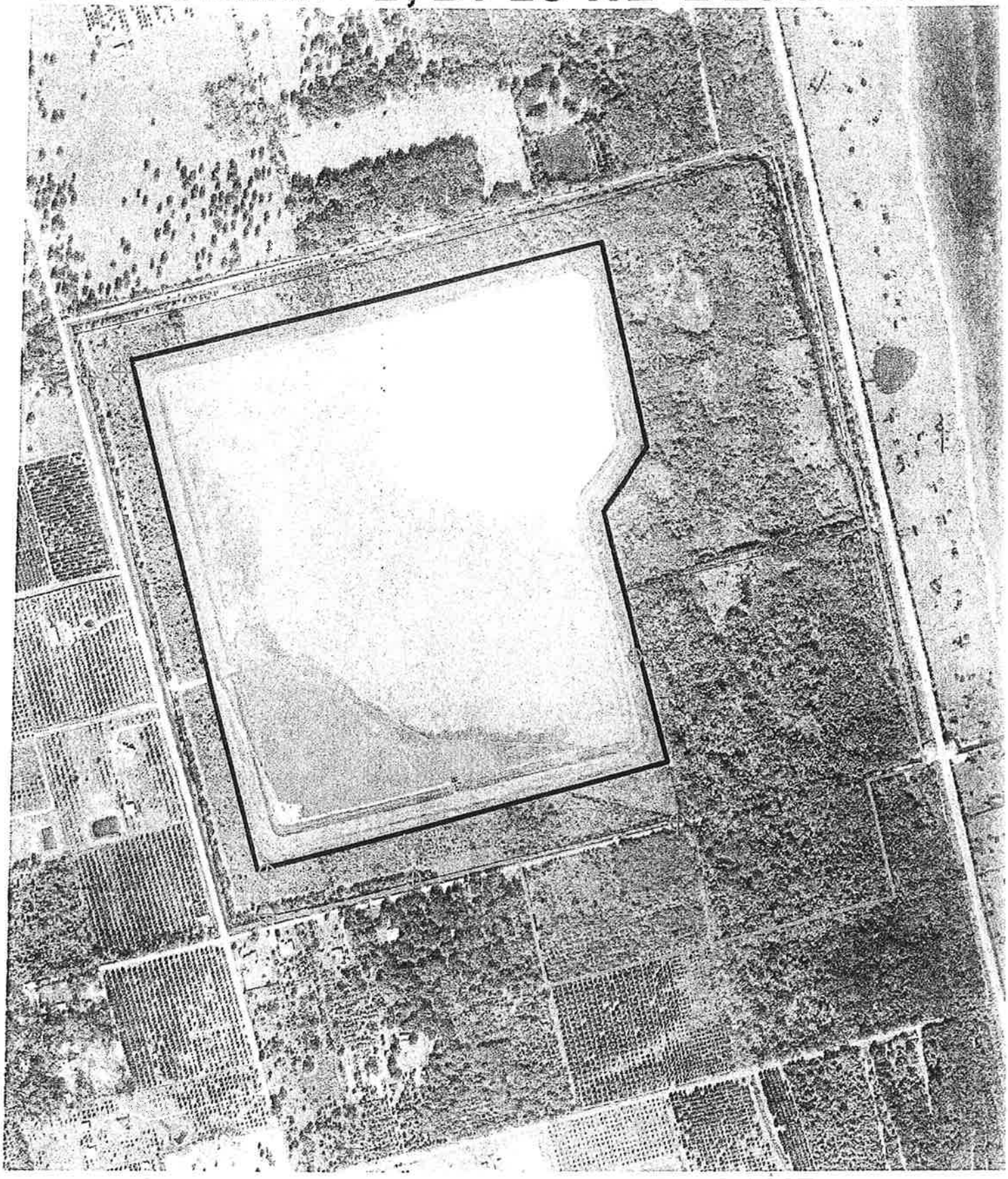
ATTACHMENT A BREVARD WELL MONITORING SITES



LEGEND

DISTRICT WELL MONITORING SITES

ATTACHMENT B, BV-2C WELL LOCATIONS



ATLANTIC FLORIDA INLAND NAVIGATION DISTRICT INTRACOASTAL

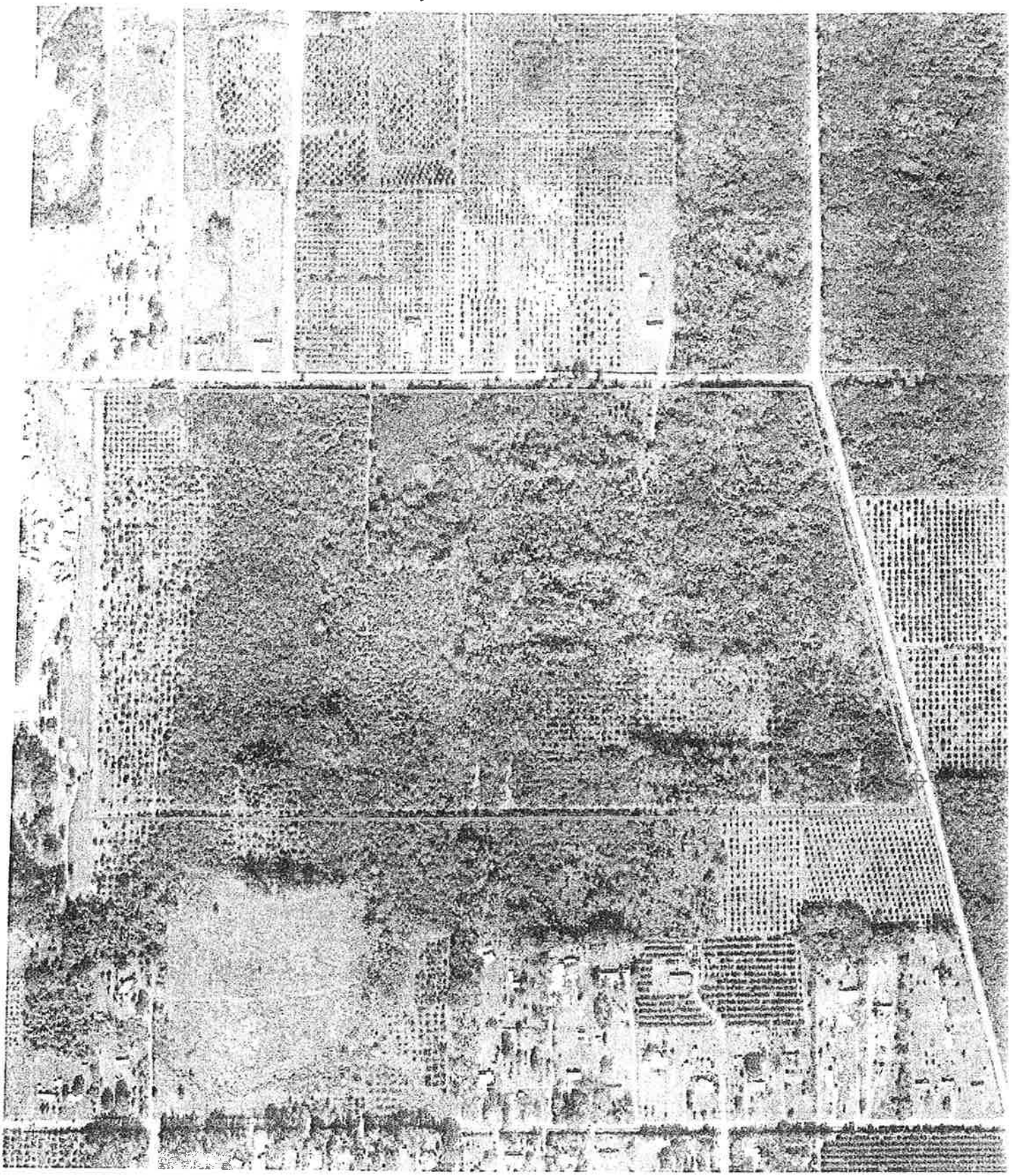
N
W E
S

LEGEND

WELL LOCATIONS

FIND PROPERTY BOUNDARY

ATTACHMENT C, BV-4B WELL LOCATIONS



LEGEND

WELL LOCATIONS

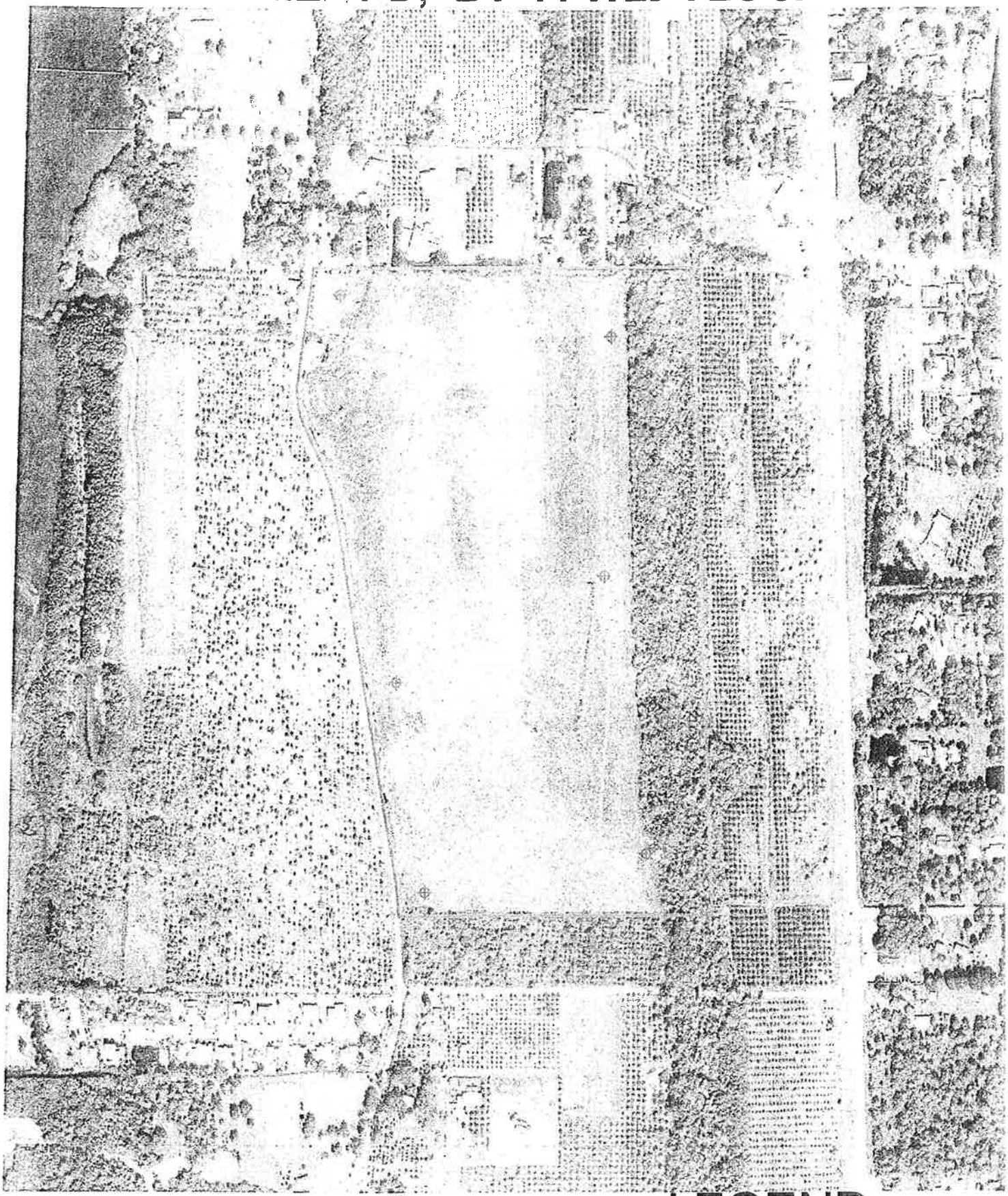
FIND PROPERTY BOUNDARY

N

W E

S

ATTACHMENT D, BV-11 WELL LOCATIONS



ATLANTIC FLORIDA INLAND NAVIGATION DISTRICT INTRACOASTAL

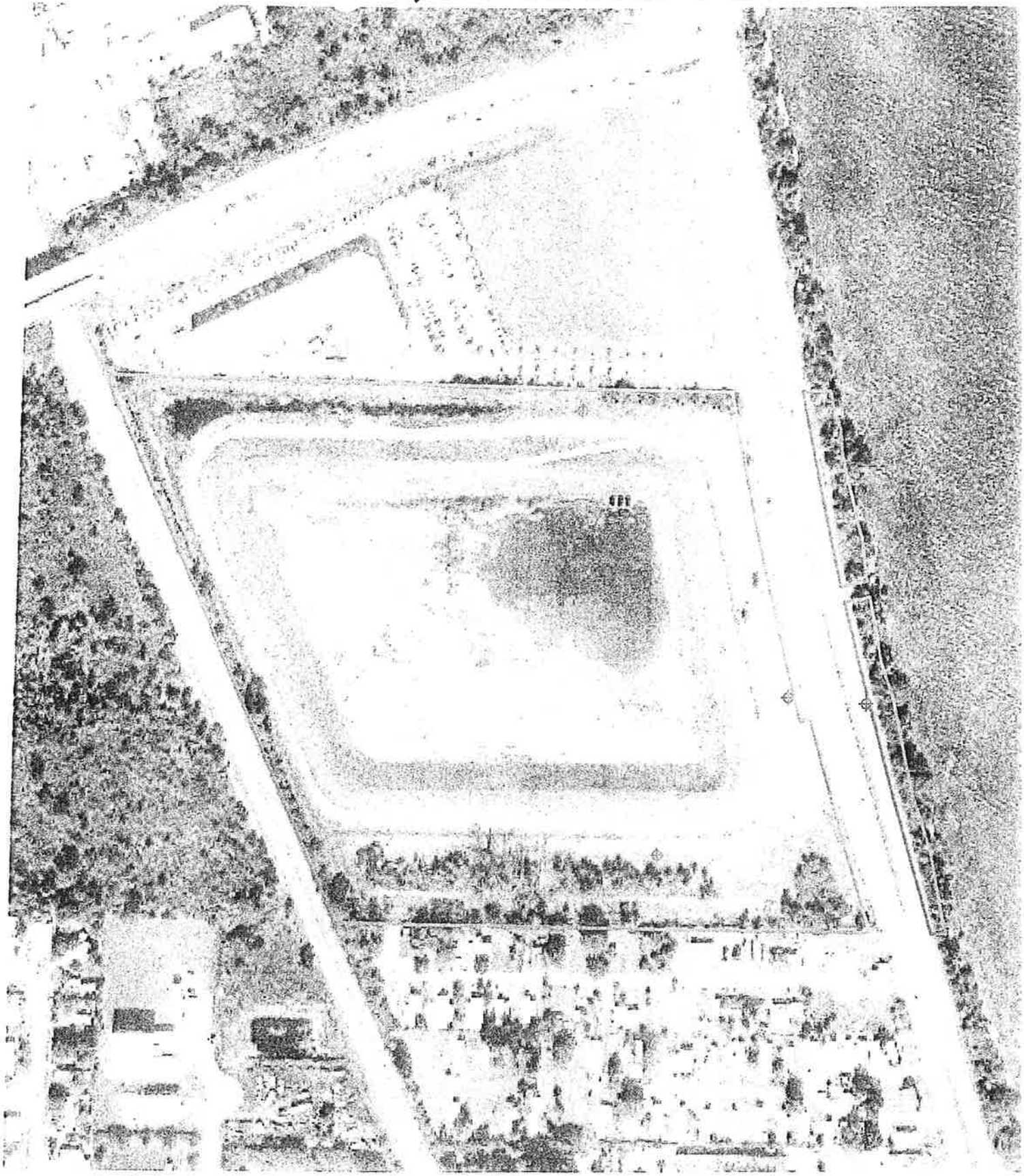
N
W E
S

LEGEND

WELL LOCATIONS

FIND PROPERTY BOUNDARY

ATTACHMENT E, BV-52 WELL LOCATIONS



ATLANTIC FLORIDA INLAND NAVIGATION DISTRICT INTRACOASTAL

N
W E
S

LEGEND

WELL LOCATIONS

FIND PROPERTY BOUNDARY

Attachment F
BREVARD COUNTY DISTRICT MONITORING WELLS.

BV-2C WELLS

Name	X-coordinate	Y-coordinate	Parcel-id	Water-depth(ft)
PZ-BV-2C-B12	549021.51	1601324.2	BV-2C Scottsmoor	0
PZ-BV-2C-A4	549129.15	1602802.86	BV-2C Scottsmoor	0
PZ-BV-2C-A8	549129.15	1602802.86	BV-2C Scottsmoor	0
PZ-BV-2C-A12	549129.15	1602802.86	BV-2C Scottsmoor	0
PZ-BV-2C-1 (MW-1)	549451.65	1599866.47	BV-2C Scottsmoor	22.5
PZ-BV-2C-2 (MW-2)	549239.7	1600475.33	BV-2C Scottsmoor	23
PZ-BV-2C-4 (MW-4)	547839.76	1600204.45	BV-2C Scottsmoor	25
PZ-BV-2C-5 (MW-5)	547792.92	1600364.96	BV-2C Scottsmoor	25
PZ-BV-2C-6 (MW-6)	547078.76	1600008.07	BV-2C Scottsmoor	28
PZ-BV-2C-7 (MW-7)	547066.95	1600228.08	BV-2C Scottsmoor	28.6
PZ-BV-2C-8 (MW-8)	546236.36	1602748.74	BV-2C Scottsmoor	80
PZ-BV-2C-9 (MW-9)	546056.05	1602717.68	BV-2C Scottsmoor	82.5

BV-4B WELLS

Name	X-coordinate	Y-coordinate	Parcel-id	Water-depth(ft)
MW-1M (bv-4b)	552815.463	1572155.53	BV-4B Mims	18.63
MW-2M (bv-4b)	552827.192	1571959.82	BV-4B Mims	19.29
MW-3M (bv-4b)	552536.25	1571342.45	BV-4B Mims	31.9
MW-4M (bv-4b)	552764.603	1570831.62	BV-4B Mims	22.89
MW-5M (bv-4b)	552763.095	1570642.91	BV-4B Mims	21.3
MW-6M (bv-4b)	554080.233	1570838.88	BV-4B Mims	9.03
MW-7M (bv-4b)	554085.613	1570659.7	BV-4B Mims	9.19
MW-8M (bv-4b)	553964.847	1570811.23	BV-4B Mims	9.98
MW-9M (bv-4b)	553960.356	1570661.77	BV-4B Mims	9.78
MW-10M (bv-4b)	555388.676	1570860.77	BV-4B Mims	3.93
MW-11M (bv-4b)	555384.667	1570675.75	BV-4B Mims	3.96
MW-12M (bv-4b)	555579.372	1570859.31	BV-4B Mims	3.45
MW-13M (bv-4b)	554216.846	1572168.09	BV-4B Mims	6.15

BV-52 WELLS

Name	X-coordinate	Y-coordinate	Parcel-id	Water-depth(ft)
PZ-BV-52-1 (MW-1)	632225	1351862	BV-52 Palm Bay	33.15
PZ-BV-52-2 (MW-2)	631391	1351776	BV-52 Palm Bay	33.15
PZ-BV-52-3 (MW-3)	631706	1351079	BV-52 Palm Bay	33.2
PZ-BV-52-4 (MW-4)	632108	1351042	BV-52 Palm Bay	33.1
PZ-BV-52-5 (MW-5)	632380	1351043	BV-52 Palm Bay	33.1
PZ-BV-52-15 (MW-15)	632633	1351334	BV-52 Palm Bay	23.38

BV-11 WELLS

Name	X-coordinate	Y-coordinate	Parcel-id	Water-depth(ft)
PZ-BV-11-1 (MW-1)	591164.113	1498465.15	BV-11 Merritt Island	17.5
PZ-BV-11-2 (MW-2)	592346.174	1498295.61	BV-11 Merritt Island	17.5
PZ-BV-11-3 (MW-3)	592322.627	149311.342	BV-11 Merritt Island	17.5
PZ-BV-11-4 (MW-4)	592520.422	1496162.25	BV-11 Merritt Island	17.5
PZ-BV-11-5 (MW-5)	591564.413	1496002.13	BV-11 Merritt Island	17.5
PZ-BV-11-6 (MW-6)	591432.549	1496873.37	BV-11 Merritt Island	17.5

FLORIDA INLAND NAVIGATION DISTRICT

SITES BV-2C, BV-4B, BV-11, BV-52
WELL MONITORING PROJECT

Bid Submittal Form

Bids are to be made on a total cost basis with an award made to the low qualified bidder.

NAME OF FIRM:_____

ADDRESS:_____

_____

TELEPHONE:_____

REFERENCES: (Name, Address, Phone, Contact Person)

1._____

_____

_____

2._____

_____

_____

TOTAL PROJECT BID COST $_____

_____
Signature

_____
Title

FLORIDA INLAND NAVIGATION DISTRICT

December 6, 2013

To: Potential Bidders
From: Mark M. Tamblyn, Field Projects Coordinator
Subject: Monitoring Well sampling at District Dredge Material Management Areas MSA-617C, MSA-640, MSA-641.

Enclosed are the bid documents and scope of work for the referenced project. **Bids are due in the District office no later than 2:00 PM on January 8, 2014.** A bid will consist of the completed bid submittal form. Bids may be faxed, mailed or hand delivered.

There will be one award of this contract to the lowest qualified bidder, however, the District reserves the right to not award a contract based on its discretion. The District also reserves the right to expand or reduce the scope of work of this contract upon negotiation with contractor.

Please contact me should you have any questions concerning this matter.

ADMINISTRATIVE OFFICE ON THE INTRACOASTAL WATERWAY IN PALM BEACH COUNTY
1314 MARCINSKI ROAD, JUPITER, FLORIDA 33477-9427 TELEPHONE 561-627-3386 FAX No. 561-624-6480
www.aicw.org

FLORIDA INLAND NAVIGATION DISTRICT
Palm Beach County
Dredge Material Management Area
Monitoring Well Sampling
Bid Package
December 6, 2013

SCOPE OF WORK
MONITORING WELL SAMPLING
DMMA'S MSA-617, MSA-640, MSA-641
PALM BEACH COUNTY, FLORIDA
DECEMBER 6, 2013

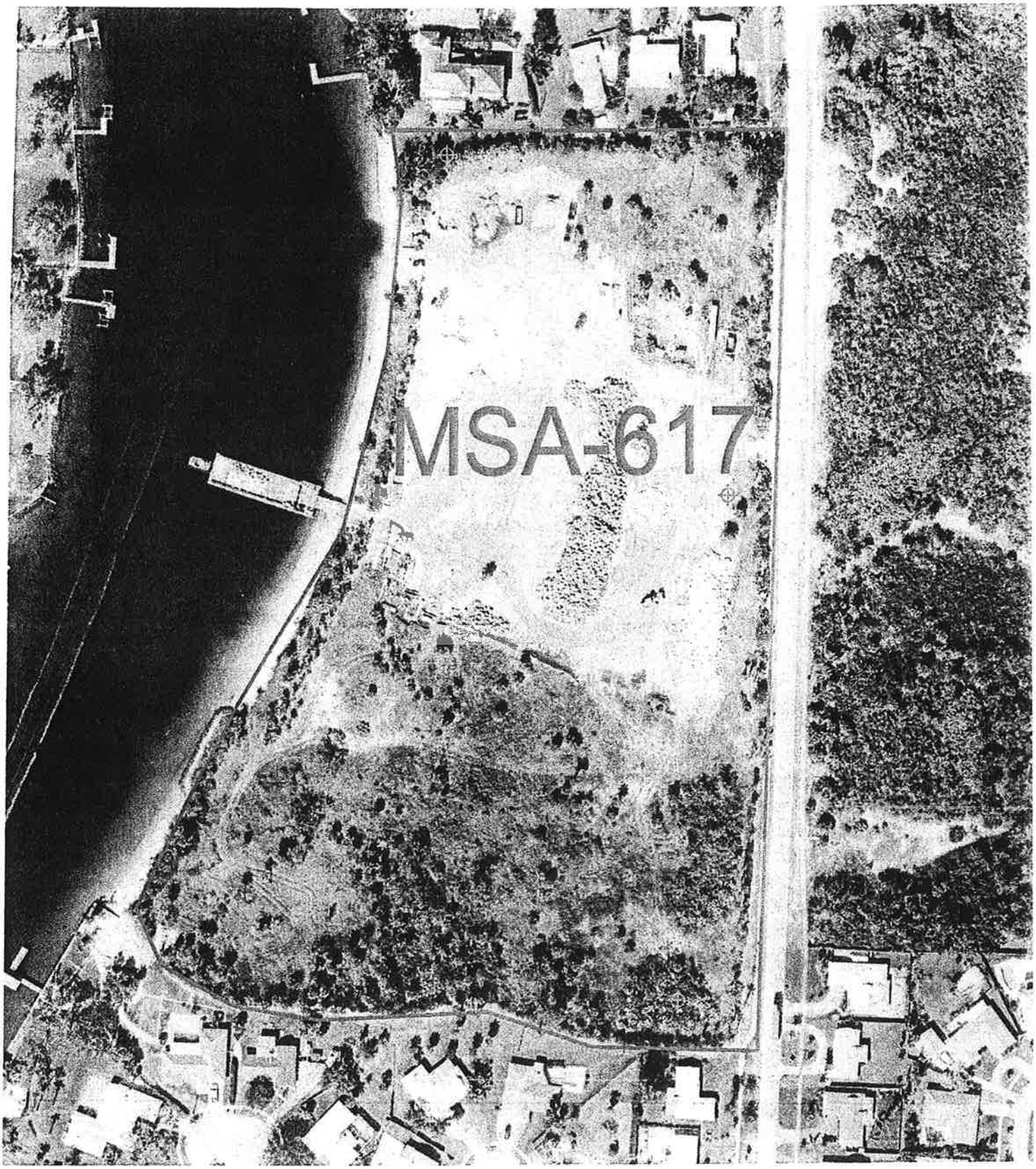
Dredge Material Management Areas (DMMA'S) MSA-617, MSA-640, MSA-641 are located in Palm Beach County, Florida. The Florida Inland Navigation District owns, operates and manages dredged materials from the Atlantic Intracoastal Waterway on these sites. The specific locations of the (3) three sites are referenced in Attachments A, B, C.

The contractor will sample the thirteen (13) monitoring wells located on the subject sites on a quarterly basis for (3) three years. The sampling will be conducted under Florida Department of Environmental Protection, Standard Operating Procedures (FDEP-SOP-001/01), FS-2200 for groundwater sampling. The sampling analysis will consist of chloride, PH, TDS, and turbidity.

A field sampling data sheet will be prepared for each well sampled that will include depth to water and a calculation of well volume for purging. One field equipment blank and one duplicate sample will be taken during each quarterly sampling round in order to meet Quality Assurance/Quality Control (QA/QC) requirements. Each sample will be analyzed by a state certified testing laboratory in accordance to the following: EPA Method 300 for dissolved chloride, EPA Method 150.1 for PH, EPA Method 160.1 for TDS, and EPA Method 180.1 for turbidity. A Chain of Custody form will be completed properly identifying sample locations, sample type, sampler, etc.

Quarterly results will be reported in a cumulative table. Original copies of laboratory data and field sampling sheets will be attached to the quarterly report. Each quarterly report will be reviewed, signed and sealed by a State of Florida licensed Professional Geologist. The District requires the report be submitted within 15 days of completion of sampling.

ATTACHMENT A



ATLANTIC FLORIDA INLAND NAVIGATION DISTRICT INTRACOASTAL

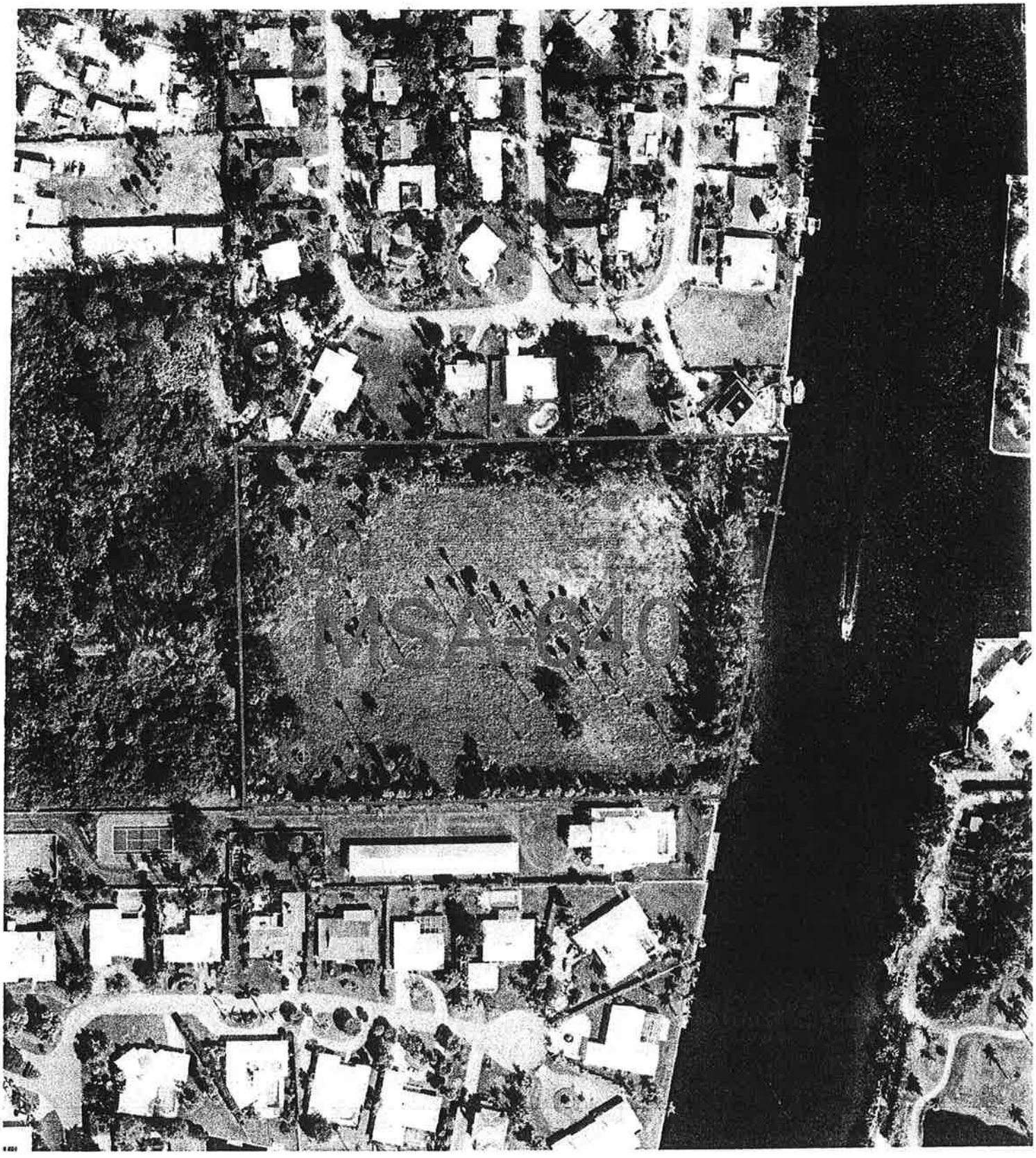
N
W E
S

LEGEND

MONITORING WELLS

FIND PROPERTY

ATTACHMENT B



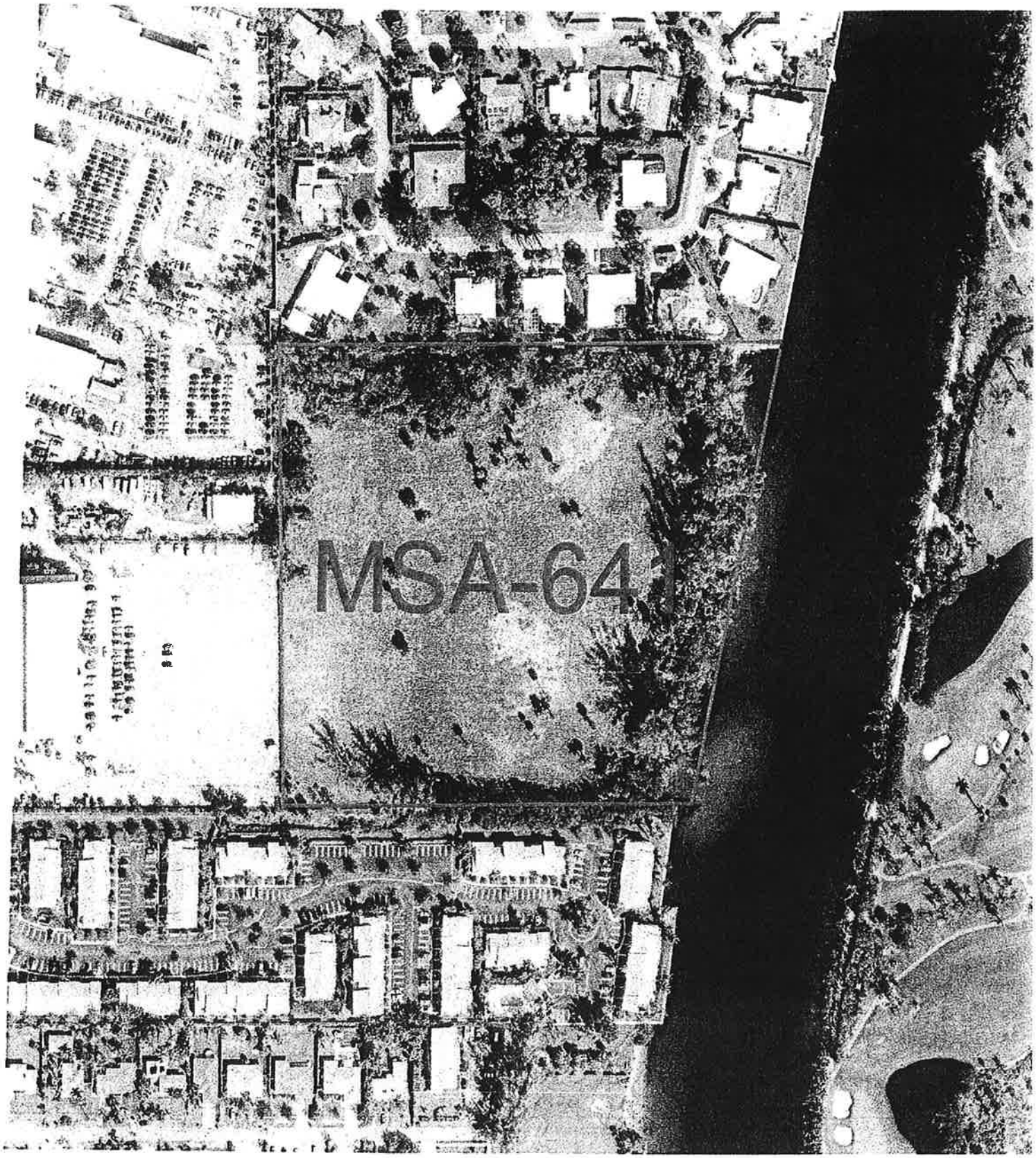
ATLANTIC FLORIDA INLAND NAVIGATION DISTRICT INTRACOASTAL

N
W E
S

LEGEND

MONITORING WELLS

FIND PROPERTY



ATLANTIC FLORIDA INLAND NAVIGATION DISTRICT INTRACOASTAL

N
W E
S

LEGEND

MONITORING WELLS

FIND PROPERTY

FLORIDA INLAND NAVIGATION DISTRICT

DMMA'S MSA-617C, MSA-640, MSA-641
WELL MONITORING PROJECT

Bid Submittal Form

Bids are to be made on a total cost basis with an award made to the low qualified bidder.

NAME OF FIRM:_____

ADDRESS:_____

_____

TELEPHONE:_____

REFERENCES: (Name, Address, Phone, Contact Person)

1._____

_____

_____

2._____

_____

_____

COST PER SAMPLING EVENT **$**_____

TOTAL PROJECT COST TWELVE (12) SAMPLING EVENTS **$**_____

_____
Signature

_____
Title

ALCALDE & FAY

GOVERNMENT & PUBLIC AFFAIRS CONSULTANTS

January 6, 2014

MEMORANDUM

TO: Mark Crosley, Executive Director

FROM: Jim Davenport

SUBJECT: **Federal Legislative Report**

WATER RESOURCES AND REFORM DEVELOPMENT ACT

The House and Senate conferees for the Water Resources Development Act (WRDA) are continuing negotiations to work out differences between the House and Senate versions (H.R. 3080 & S. 601). House Majority Leader Eric Cantor has indicated that the WRDA is a top priority for the House in 2014, and all signs have indicated that a final conference report could be ready soon.

As you know, we contacted the Senate Environment and Public Works (EPW) Committee and prepared letters on behalf of FIND in support of House WRDA Section 218, which authorizes the U.S. Army Corps of Engineers (USACE) to perform an assessment of the needs of the Atlantic Intracoastal Waterway.

FISCAL YEAR 2014 APPROPRIATIONS

The House and Senate Appropriations Committees are wrapping up the final details of a fiscal year (FY) 2014 Omnibus Appropriations Bill, which includes all 12 appropriations bills. The $1.012 trillion bill should be released later this week in order to give Congress enough time to pass it before January 15, which is when the current continuing resolution expires.

The chairmen and ranking members of the House and Senate Appropriations Committees are expected to meet early this week to resolve several policy and funding disputes within the omnibus. Then, the Appropriations Committees will have just over a week to work through any differences, sell the bill to their respective parties and allow adequate time for passage in both chambers.

We will update you further when details of the Omnibus Bill emerge.

MAGNUSON STEVENS ACT REAUTHORIZATION

As you know, House Resources Committee Chairman Doc Hastings (R-WA), released a draft proposal to reauthorize the Magnuson Stevens Act, which was last reauthorized in 2006.

The bill in its current form is 30 pages with a focus on promoting flexibility and transparency, creating jobs, and giving predictability to the coastal communities that depend on stable fishing activities.

The bill would be an appropriate vehicle to address the "essential fish habitat" definition which has led to the mitigation of Johnson's seagrass for maintenance dredging activities in the Intracoastal Waterway.

We have contacted the House Natural Resources Committee - Subcommittee on Fisheries, Wildlife, Oceans and Insular Affairs to seek more information as to the timing of a Committee markup and any other relevant details. Mr. Dave Whaley, with whom we discussed the FIND issue with during the last reauthorization, is still working for the Committee and is the primary point of contact for the new bill. We left a message for Dave and will send you additional details once we have them.

In the meantime, per our discussion, we look forward to receiving specific information from FIND as to how mitigation of Johnson's seagrass has impacted FIND's maintenance dredging projects. We will need these examples to illustrate the problem and help make our case to both FIND's congressional delegation and the House Natural Resource Committee.

Please contact us with any questions.

2111 WILSON BOULEVARD 8TH FLOOR ARLINGTON, VA 22201 PH (703) 841-0626 FAX (703) 243-2874