U.S. Department
of Transportation
**Federal Aviation
Administration**

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July 30, 2010

Mr. Edward R. Wuellner
Airport Manager
St. Augustine-St. Johns County Airport Authority
Northeast Florida Regional Airport at St. Augustine (formerly St. Augustine Airport)
4796 U.S. Highway 1 North
St. Augustine, FL 32095

Re: St. Augustine Airport – Taxiway C Replacement, RSA Compliance, and Approach Lighting System

Dear Mr. Wuellner:

St. Augustine-St. Johns County Airport Authority, as the Airport Sponsor, has requested the Federal Aviation Administration (FAA) environmentally approve airfield improvements at the St. Augustine Airport. The Proposed Action environmentally analyzed in the EA includes the relocation of Taxiway C to the Runway 31 end, repairing the Runway 31 Runway Safety Area (RSA) to meet FAA design and safety standards, and the addition of an Approach Lighting System (ALS) to the Runway 31 approach. To facilitate approval of the requested actions, the Airport Sponsor has submitted an Environmental Assessment (EA) dated June 2010.

The FAA has independently reviewed the EA prepared by the Airport Sponsor and determined that it is in accordance with FAA's regulations and is consistent with the Council on Environmental Quality's regulations implementing the National Environmental Policy Act (NEPA) (40 CFR Part 1500) as well as FAA's Orders 1050.1E and 5050.4B for implementing the procedural provisions of NEPA. Consistent with 40 CFR 1501.4(e), the FAA has prepared a Finding of No Significant Impact (FONSI) and Record of Decision (ROD), concluding that preparation of an Environmental Impact Statement (EIS) for this Proposed Action is not necessary. Enclosed are signed originals of the EA, FONSI and ROD.

The FONSI is issued pursuant to any requirements for mitigation and permits that are discussed and indicated in the EA, and which are considered to be conditions of approval.

In accordance with the regulations implementing NEPA, notice of the FONSI and ROD, accompanied by the EA, must be made public. The enclosed notice should be placed in a local newspaper(s) as soon as possible for a minimum of three days. The EA,

FONSI and ROD should also be posted on the Airport's public website. Please provide this office with a certified copy of the newspaper notice as it appears in print.

If there are any questions, please feel free to contact me by telephone at (407) 812-6331, extension 129.

Sincerely,

Virginia Lane, Environmental Specialist

Enclosures

cc:
USACE, w/ enclosures
FDOT, District 2 w/o enclosures

DEPARTMENT OF TRANSPORTATION

FEDERAL AVIATION ADMINISTRATION
ORLANDO AIRPORTS DISTRICT OFFICE
ORLANDO, FLORIDA

FINDING OF NO SIGNIFICANT IMPACT
AND
RECORD OF DECISION

Taxiway C Replacement, RSA Compliance, and Approach Light System

Northeast Florida Regional Airport at St. Augustine
(Formerly the St. Augustine Airport)

St. Augustine, FL

July 2010

BACKGROUND: St. Augustine-St. Johns County Airport Authority, as the Airport Sponsor, has prepared an Environmental Assessment (EA) to analyze the potential environmental effects of airfield improvements at the Northeast Florida Regional Airport at St. Augustine (SGJ). The airport was formerly known as the St. Augustine Airport. SGJ is currently designated as having an Airport Reference Code (ARC) C-III. The family of C-III aircraft operating out of the airport includes Gulfstream G500 and G550, Global Express, Boeing Business Jet and Boeing Business Jet 2.

The Proposed Action environmentally analyzed in the EA includes repairing the Runway 31 Runway Safety Area (RSA) to meet FAA design and safety standards, the replacement and relocation of Taxiway C to the Runway 31 end, and the addition of an Approach Lighting System (ALS) to the Runway 31 approach. At the initiation of the EA during project scoping, the U.S. Army Corps of Engineers (USACE) requested that they be a cooperating agency with the FAA on the EA.

PURPOSE AND NEED AND PROPOSED ACTION: The three airfield projects (Proposed Action) being analyzed in this EA are: the rehabilitation and stabilization of the east side of the Runway 31 Runway Safety Area (RSA) in compliance with FAA standards; the replacement and extension of existing parallel Taxiway C to Runway 31 end; the additional of an Approach Lighting System (ALS) on the Runway 31 approach.

Replacement and extension of existing parallel Taxiway C to Runway 31: Current FAA airport design standards require that ARC C-III airports provide a minimum runway-to-taxiway centerline separation of 400 feet to insure that no part of an aircraft on the taxiway centerline is within the runway safety area (RSA) or penetrates the obstacle free zone (OFZ) of the runway. [1] Taxiway 'C' provides access to the south end of Runway 31. The current location of parallel taxiway 'C' is less than the minimum FAA design standard distance from runway centerline to taxiway centerline. The minimum distance from runway centerline to parallel taxiway centerline for this runway should be 400 feet. The current distance from Taxiway 'C' centerline to Runway 13-31 centerline is 215 feet, 185 feet below the minimum standard. There are currently no taxiways accessing Runway 31 at its full length that meet these criteria. By re-aligning and replacing Taxiway 'C' as a continuation of full parallel Taxiway 'B', the Airport will then have one taxiway within the optimum range, providing access to the full length of Runway 13-31.

This proposed project would replace the existing Taxiway 'C' with an alignment that meets FAA standards and minimizes environmental impacts, while also enhancing the operational safety and efficiency of the taxiway and runway

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[1] FAA AC 150/5300-13 Airport Design, Table 2-2 Runway Separation Standards for Aircraft Approach Categories C & D. The runway centerline to taxiway/taxilane centerline is 400 feet for aircraft approach category C-III.

system. The alternatives section of the EA analyzes several alternatives for this proposed project.

As discussed in the EA, the preferred alternative for Taxiway 'C' is Alternative 3. Alternative 3 includes the installation of a full length parallel taxiway, in two segments (800-feet and 820 feet in length), leading from Taxiway 'D' to the south end of Runway 31. Existing Taxiway 'C' would be removed from Taxiway 'D' to the south end of Runway 31. The distance from the aircraft hold line to both the displaced threshold and the physical end of Runway 31 is reduced to 250 feet. Alternative 3 is shown in Figure 2.02.3 of the EA.

Runway Safety Area (RSA) Compliance

A runway safety area is defined as the "surface surrounding the runway prepared or suitable for reducing the risk of damage to airplanes in the event of an undershoot, overshoot, or excursion from the runway"[2]. The runway safety area must also be able to support aircraft rescue and firefighting (ARFF) vehicles. The current runway safety area on the east side of Runway 13-31 is less than the minimum design standard advised by the FAA.[3] The minimum recommended design width of the runway safety area for Runway 13-31 is 500 feet (250 feet off each side of the runway centerline). The current distance for the east side of the safety area ranges between the full standard width of 250 feet, down to 140 feet, which is 110 feet below the design standard. This area was originally permitted, graded, and installed at the proper distance of 250 feet from runway centerline. It has been eroded by weather events because of its close proximity to the Tolomato River. The proposed project stabilizes and re-grades the safety area on the east side of the runway to the proper design standard of 250 feet from runway centerline. The restoration of the runway safety area will meet FAA design standards and enhance operational safety for arriving and departing aircraft. This proposed project would rebuild and stabilize the eroded area to bring the RSA back into compliance, within FAA design standards and enhance safe operations at the Airport. The only other alternative to this proposed project is the No Action alternative.

The preferred alternative for the RSA is Alternative 8, which includes the rehabilitation and stabilization of the RSA on the east side of Runway 31 (2,750 linear feet) per FAA Advisory Circular 150/5300-13 Airport Design standards for runway safety area (RSA) compliance. Alternative 8 is shown in Figure 2.02.8 in the EA.

Approach Lighting System (ALS)

The Airport has an incomplete precision instrument approach (Instrument Landing System-ILS) procedure to Runway 31, without the benefit of an ALS. In

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[2] FAA AC 150/5300-13 Airport Design, Chapter 1. Regulatory Requirements and Definition of Terms.

[3] FAA AC 150/5300-13 Airport Design, Table 3-3. Runway design standards for aircraft approach categories C & D. The runway safety area width for airplane design group III is 500 feet.

accordance with the FAA's Aeronautical Information Manual (AIM), sections 1-1-9 and 2-1-1, a complete ILS includes the installation of an ALS, which can extend 2,400 feet beyond the approach end of the runway, to serve arriving aircraft during periods of low visibility and extreme weather conditions. Most Federal Aviation Regulation Part 139 airports in the state of Florida have an ILS, including an ALS. The installation of the ALS will complete the ILS, provide improved capabilities during periods of low visibility and enhance operational safety and efficiency for arriving and departing aircraft.

The preferred alternative for the ALS is Alternative 10, which includes the installation of an intermediate ALS (1,800 feet in length), extending from the Runway 31 southern displaced threshold into the salt marsh area south of Runway 13-31. An intermediate 1,800' ALS is recommended for the Airport based on DOT/FAA/AR-02/81[4] and discussions with FAA (refer to Appendix U in the EA). The Airport has submitted a request for a modification of FAA design standards for the intermediate ALS. The ALS extends off of airport property into State Sovereign Submerged Lands for a distance of 610 linear feet. Alternative 10 is shown in Figure 2.02.10 in the EA.

TIMEFRAME: The three projects are proposed for implementation in the 2010-2011 timeframe. Section 2.04 of the EA provides additional information regarding the anticipated project schedule. The projects are shown on the revised Airport Layout Plan (ALP).

[4] DOT/FF/AR-02/81, FAA, Reduced Approach Lighting Systems (ALS) Configuration Simulation Testing, July 2002

ALTERNATIVES: Twelve (12) alternatives, including the No Action alternative, were considered in the EA. Under NEPA, the No Action alternative (Alternative 1) is carried forward in the analysis of environmental consequences to satisfy the intent of NEPA and to provide a basis for comparison of environmental impacts of the proposed action. The action alternatives represented viable options for consideration of Taxiway 'C' Replacement/Taxiway 'B' development (Alternatives 2-7); Runway Safety Area (RSA) rehabilitation (Alternative 8) and ALS installation (Alternatives 9-11). The preferred alternatives identified in the EA include: the Taxiway 'C' replacement/Taxiway 'B' alternative (Alternative 3); the RSA alternative (Alternative 8); and, the ALS alternative (Alternative 10). These alternatives are collectively identified as Alternative 12. Seven of the alternatives (Alternatives 2, 4, 5, 6, 7, 9, and 11) were determined not reasonable and excluded from further detailed study.

- √ Alternative 1 – **No Action** – No development or improvements.

Taxiway 'C' Replacement alternatives

- √ Alternative 2 – Taxiway 'C' (Option 2, Partial Length: 850-feet)
- √ Alternative 3 – Taxiway 'C' (Option 3, Full Length, 2 Segments: 1,620-feet)
- √ Alternative 4 – Taxiway 'C' (Option 4, Full Length, 3 Segments: 1,675-feet)
- √ Alternative 5 – Taxiway 'C' (Option 5, Full Length, Direct: 1,678-feet)
- √ Alternative 6 – Taxiway 'C' (Option 6, Full Length, 2 Segments: 1,944-feet)
- √ Alternative 7 – Taxiway 'C' (Option 7, Full Length: 1,657-feet)

Runway Safety Area Alternative

- √ Alternative 8 – RSA would be rehabilitated to comply with FAA standards

ALS Alternatives

- √ Alternative 9 – ALS (Short: 1,400-feet)
- √ Alternative 10 – ALS (Intermediate: 1,800-feet)
- √ Alternative 11 – ALS (Full: 2,400-feet)

Proposed Action

- √ Alternative 12 – Alternative 3 – Taxiway 'C' (Full Length, 2 Segments: 1,620-feet); Alternative 8 – RSA compliance; Alternative 10 – ALS (Intermediate: 1,800-feet)). Improvements to the RSA and the relocation of Taxiway C are interdependent and will be constructed as one project. The ALS is secondary project that will be constructed after improvements to the RSA and Taxiway C.

Only the No Action Alternative and Proposed Action (Alternative 12)were carried forward for detailed environmental review. The Proposed Action is the **FAA's Preferred Alternative.**

No Action – The No Action alternative is carried forward in the analysis of environmental consequences to satisfy the intent of NEPA. With the No Action,

none of these projects would be implemented. Although not always reasonable, feasible, prudent, or practicable, the No Action alternative is a potential alternative under NEPA and serves as the baseline for the assessment of impacts associated with the proposed action.

FEDERAL ACTION: The SGJ revised Airport Layout Plan (ALP) depicts the three projects. The Federal Action includes the following projects:

- √ The replacement/relocation of Taxiway C to the Runway 31 end.
- √ The repair of the Runway 31 Runway Safety Area (RSA) to meet FAA design and safety standards,
- √ The addition of an Approach Lighting System (ALS) to the Runway 31 approach. The Airport has submitted a request for a modification of FAA design standards for the intermediate ALS.

Subsequent to this environmental review, the FAA will unconditionally approve that portion of the revised ALP for the listed projects. Other FAA approvals that will be required include approval of the above referenced modification of FAA standards for the ALS and airspace approvals.

OTHER FEDERAL, STATE AND LOCAL ACTIONS AND PERMITS: The USACE is a cooperating Federal agency on this EA and will need to issue separate NEPA decisions in conjunction with the Section 404/Section 10 permit process for the three projects.[5] The St. Johns River Water Management District (SJRWMD) will need to issue Environmental Resource Permits for the three projects and Section 401 Water Quality Certification.[6] The Florida Department of Environmental Protection (DEP) will issue National Pollutant Discharge Elimination System (NPDES) permits or modifications to existing permits for construction activity. The DEP has determined that the Proposed Action is consistence with the Florida Coastal Zone Management Program (CZMP), with final consistency to be determined upon issuance of state permits. The Proposed Action will also impact Class II waters that are conditionally approved for shellfish harvesting. This will required a variance issued by the SJRWMD pursuant to Section 403.201(1) (c), Florida Administrative Code.[7] Use of a portion of the spoil island that is owned by the state for mitigation of project impacts will require approval by the Florida Division of State Lands. The Florida

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[5] The USACE has issued a Nationwide and regional General Permit for the ALS and Control Panel; a combined permit application was submitted by the Airport Sponsor for the RSA restoration (East) and Mitigation and the Taxiway C Replacement, Tidal Canal Relocation, and RSA Improvement. The USACE Public Notice was issued in June 2010.

[6] The Airport Sponsor submitted 3 permits to the SJRWMD, and is currently responding to requests for additional information (RAI) for the ALS and Control Panel and the RSA restoration (East) and Mitigation and the Taxiway C Replacement, Tidal Canal Relocation, and RSA Improvement.

[7] Three variance requests were submitted with the permit applications. The variances will be issued with the ERP permits.

Division of State Lands will also need to approve any other impacts to state lands as a result of project construction.[8]

ENVIRONMENTAL ISSUES: Implementation of the proposed action would have no effect on a number of the environmental categories listed in FAA Order 1050.1E. As discussed in Section 3.18 of the EA, the environmental categories that would not be affected include: Air Quality, Coastal Barriers, Department of Transportation Section 4(f) resources, Environmental Justice, Farmlands, Historic, Architectural, Archaeological, and Cultural Resources[9], Induced Socioeconomic, and Wild and Scenic Rivers.

The remaining environmental categories where potential impacts may occur as a result of the Proposed Action are discussed below.

The No Action alternative does not affect any of the environmental consequences categories. However the runway safety area of the airport would continue to erode, potentially creating safety issues at the airport. In addition the airport would not be in compliance with FAA design standards for runway safety areas and taxiway separations.

Biotic Resources -- The Proposed Action will result in unavoidable permanent impacts to approximately 7.46 acres[10] of saltmarsh and 2.57 acres of open water habitats. The saltmarsh and open water areas are suitable habitat for wading and shorebirds, federally managed fish, state listed species, shellfish, and commercially important species. However, the project area has been previously disturbed and the Proposed Action will not impact rare or sensitive habitat. The open water areas have been previously dredged, and untreated and treated stormwater runoff flows into some of the open waters via culverts. It is expected that the fish, birds, and other wildlife that currently use the habitats within the project area would relocate to adjacent areas. After construction, saltmarsh habitat that is similar to what is proposed for impact will be replanted along the shoreline of the proposed action area which is anticipated to provide the same functions as the habitat that is proposed for impact. In addition, the Proposed Action and mitigation are designed to consider the guidelines listed in FAA Circular 150/5200-33B *Hazardous Wildlife Attractants at or Near Airports.* Restoration of the spoil island will remove potential hazardous wildlife nesting habitat near the Airport through the conversion of the dense forested habitat of the spoil island to saltmarsh. Removing the forested habitat eliminates the potential for attracting wading birds that are seeking a forested nesting site. Therefore, there should be no increase in potential wildlife attractants at the airport. Consultation was conducted with US Fish and Wildlife Service (FSW),

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[8] The Airport Sponsor has been coordinating with the Florida Division of State Lands regarding the use of State lands, and anticipates approval at the time of permit issuance.

[9] The Florida Division of Historic Resources has determined that the projects would have no effect on historic or cultural resources. Letter to Miles Bland, Bland and Associates from Laura Kammerer, Deputy State Historic Preservation Officer, June 29, 2010,

[10] The saltmarsh acreage includes approximately 1.37 acres of salt flats.

National Marine Fisheries Service (NMFS), and the Florida Wildlife Commission (FWC) regarding impacts to biotic resources. Consultation with these agencies and mitigation for impacts to Biotic Resources, Wetlands, and Threatened and Endangered Species is discussed in the **Mitigation** section of this FONSI.

With proposed mitigation, the Proposed Action is not anticipated to significantly impact the population dynamics or the sustainability and reproduction rates of wildlife and biotic resources. The proposed project would not result in significant impacts to biotic resources.

State Listed Species:

- √ *Atlantic or Shortnose Sturgeon* –The FWC states that it is highly unlikely that a sizable population of shortnose sturgeon exist in the St. John's River[11] and neither species of sturgeon has been documented in the Tolomato River based on the research that was conducted for the EA (Appendix A in the EA). The USACE and NMFS have not raised any concerns regarding the sturgeon. However as a precaution the Airport Sponsor would implement the *Sea Turtle and Smalltooth Sawfish Construction Conditions* as a special condition of any permit issued. Therefore, the determination in this FONSI is that the projects are "Not Likely to Adversely Affect" the Atlantic or shortnose sturgeon.

- √ *Florida (West Indian) Manatee* –The probability of manatees occurring in the proposed project area is very low as the open water areas in the proposed project area are shallow and do not contain seagrass. However, as a precaution, a Manatee Protection Plan including the *Standard Manatee Conditions for In-Water Work*[12] will be developed during the permitting process and will be implemented by the Airport Sponsor during construction activities. Turbidity curtains would also be installed. The USACE has used the 2008 Manatee Key to determine that the projects are "Not Likely to Adversely Affect" the Florida manatee. The USACE determination is being coordinated with FWS. Therefore, the determination in this FONSI is that with mitigation, the projects are "Not Likely to Adversely Affect" the Florida manatee.

- √ *Other State Listed Species* - Both saltmarsh and open water habitats are regularly utilized by alligators and state listed water birds such as herons, egrets, wood storks, and terns as well as the protected bald eagle.[13] However, many of the state listed bird species were recorded roosting on

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FWRI. 2009. Shortnose Sturgeon Population Evaluation in the St. Johns River, Florida. Web article. http://research.myfwc.com/features/view_article.asp?id=24341

[12] USFWS. 2005. USFWS Standard Manatee Conditions for In-Water Work. http://www.fws.gov/northflorida/Manatee/ Documents/PermitGuidance/standard-conditions-for-in-water-work-2005_final.pdf

[13] The American alligator is federally protected (P) and as are wood storks (E) and piping plovers (T).

poorly suitable habitats such as man-made structures including stormwater drains, the seaplane dock and ramp. No nests or colonies were observed for the protected bird species. Permanent impacts to both alligator and bird habitat would occur from the direct loss of saltmarsh, however, the proposed project includes mitigation which will compensate for this loss and a no net loss of wetland and open water habitat is expected. In addition, significant areas of superior habitat occur adjacent to the airport Which these species will likely relocate to during construction. Additionally, after construction is completed at the request of NMFS, saltmarsh vegetation will be planted along the slope of the Armorflex which is outside of the required RSA (as required mitigation).

√ *Benthic Habitat* - Approximately 0.17 acres of oysters are proposed for permanent impacts from the project. Permanent impacts would be from the restoration of the RSA to FAA standards. ArmorFlex 30 is proposed to help prevent future erosion of the RSA. Impacts to oysters will be mitigated in accordance with permit requirements. At this time, mitigation for impacts to the oyster beds is proposed to include relocation of oysters within the proposed impact areas to the toe of slope of the RSA on the east and south sides of the RSA. In addition, extra oyster shells, if needed, will be added to the area for additional substrate for oyster spat attachment. Therefore, the determination in this FONSI is that impacts to benthic habitat (oysters) are expected to be minimal.

√ *Essential Fish Habitat* – Potential impacts to Essential Fish Habitat (EFH) and species managed by the National Marine Fisheries Service (NMFS) are expected to be minor. Impacts are primarily due to the loss of habitat. Some of the habitats proposed for impact from the project, including open water, tidal flats, oyster clumps, and saltmarsh are important, because they serve as foraging, nursery, refuge, and loafing grounds. Impacts to federally managed fish species would be expected to be minimal as higher quality habitats with a more regular hydroperiod can be found in adjacent areas. Fish that may be in the proposed project area would be expected to move to these areas that are more suitable during and after construction. Also, a relocated tidal canal will be constructed and will be available to fish upon completion. Furthermore, Best Management Practices (BMPs) will be utilized throughout the project's construction and mitigation phases to ensure compensation and minimal secondary impacts to the adjacent wetland areas. The USACE determined in the Public Notice that the proposed projects would not have a substantial adverse impact on EFH or federally managed fisheries. A final determination will include input from NMFS. The determination in this FONSI is that the projects, with mitigation, will not have a substantial adverse impact on EFH or federally managed species. The NMFS provided comments on the Draft EA and EFH Conservation Recommendations in February, 2010.[14] The FAA

[14] Letter from NMFS to FAA, February 25, 2010.

provided an interim response to the NMFS on March 17, 2010 acknowledging receipt of the comments.[15] The FAA provided responses to the NMFS comments and EFH Conservation Recommendations in a letter to the NMFS dated April 19, 2010. The FAA has fully considered the EFH Conservation Recommendations and will ensure that the Airport Sponsor complies with all regulatory permit conditions. The NMFS provided additional comment to the FAA in a letter dated May 14, 2010. FAA responses to these comments are included in the Final EA, Appendix T. In June, the NMFS provided comments and EFH Conservation Recommendations to the USACE based on a review of the USACE May 12, 2010 public notice for the Section 404 permit for the proposed projects (SAJ-2009-1716 (SP-MRE). The USACE will be responding to the NMFS as part of the permit process.

√ *Commercially Important Species* - The proposed project area contains habitat for commercially important fisheries, and a few of these species were observed during the site assessments. Several blue crabs, one juvenile stone crab, and many oysters were observed during the benthic survey conducted in April 2009. It is also expected that other commercially important species such as shrimp and flounder are present in the open water and saltmarsh habitats of the proposed project area. The loss of habitat will be mitigated appropriately such that a no net loss of habitat for commercially important species is expected. Mitigation for the proposed impacts is further discussed in Appendix Q. Although some of these commercially important species were observed in or near the proposed project area, these species are expected to occur throughout the coastal area surrounding the airport due to the presence of suitable habitat. These adjacent areas contain higher quality habitats with denser concentrations of suitable cover and forage and would be available for these species to utilize during and after construction are completed. As a result, impacts to commercially important species, if any, would be expected to be insignificant

Overall, with the proposed mitigation, only nominal impacts to wildlife and protected species would be expected. Considering the unavoidable impacts, the public benefit of the project, the previously disturbed quality of habitat to be impacted and the proposed restoration/ mitigation to offset those impacts, the adverse impacts to the listed and protected species is considered insignificant.

Coastal Zone Management – The Airport Sponsor conducted a review of the 23 Florida Statutes authorized under the Florida Coastal Management Program (FCMP) to identify potential regulatory nonconformities for the proposed project. Based on this review, the project will be in compliance with the FCMP and implementation of the Proposed Action is not anticipated to have significant

[15] Email from Virginia Lane, FAA, to Miles Croom, NMFS, March 17, 2010.

effects on coastal resources.[16]Concerns expressed by the state's reviewing agencies have been addressed by the Airport Sponsor in the Final EA, and continue to be addressed through the permitting process. The state's continued concurrence is based on the activity's compliance with FCMP authorities, including federal and state monitoring of the activity to ensure its continued conformance, and the adequate resolution of issues identified during the EA review and subsequent reviews. The state's final concurrence of the project's consistency with the FCMP is determined during the environmental permitting process.

Compatible Land Use -- The Proposed Action would not impact existing or planned land use since the projects will be constructed on airport and state owned property, would not increase aircraft operations or the fleet mix at the Airport, and would not require changes in land use or zoning. Impacts to state owned property will require approval from the Florida Division of State Lands. The proposed project is consistent with the County's comprehensive plan land uses and zoning and the Airport Master Plan. The Proposed Action will not affect the airport's noise environment and would not result in incompatible land use.

Construction -- Construction impacts are the short-term, temporary effects of the construction process that can usually be mitigated with proper construction management and the use of best management practices (BMPs), as outlined in FAA AC 150/5370-10A, *Temporary Air and Water Pollution, Soil Erosion, and Siltation Control.* FAA Order 1050.1E, Appendix A, states that construction impacts alone are rarely significant pursuant to NEPA. However, the Order refers to the other relevant impact categories for thresholds of significance. Potential construction-related impacts resulting from the Proposed Action could temporarily affect noise levels, air quality, and surface waters. The duration of construction-related activities is expected to occur over the entirety of proposed project—approximately 3 years. It is anticipated that the replacement of the RSA and construction of Taxiway 'C' will start in 2010 and be completed in 2011 - 2012, followed by the placement of the ALS in 2012 - 2013. It is expected that all project activities will be completed by 2013.

Construction—Noise and Vibration: Construction noise would temporarily increase ambient noise levels in the immediate vicinity. Grading and scraping, can be considered noisy activities, with equipment noise levels as high as 70 to 90 dBA within 50 feet of their operations. Where practicable, construction activities would be conducted during daylight hours and during normal working hours. Temporary noise impacts near the construction site would be minimized by incorporating measures such as work-hour limits, muffler requirements, "elimination of tail gate banging," and reduction of backing up for equipment with alarms into the project plans and specifications. Construction-related noise would be intermittent and temporary. No significant construction noise or vibration impacts are expected to occur.

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[16] February 10, 2010 letter from the FDEP (**Appendix T**).

Construction—Air Quality: Potential temporary air quality impacts due to construction would be minimized with the use of Best Management Practices (BMPs) and would help reduce any potential air quality issues that may be created during construction. Clearing and grading operations associated with the construction of the proposed airport improvements would be expected to generate air emissions, with particulate matter (i.e. fugitive dust) having the greatest impact. Most of the dust would be re-deposited close to the source, since it is generated low to the ground. Impacts would be intermittent and temporary. Increases in dust would be managed by utilizing dust control BMPs such as placing mats in area where dust may be a concern. EPA standards dictate that dust (PM10) levels must not exceed 150 micrograms per cubic meter during the construction period. It will be the construction contractor's responsibility, through the enforcement of the plans, specifications, and contract documents to ensure adherence to this standard.

Construction—Water Quality (Turbidity) and Erosion: Construction of the projects will require National Pollutant Discharge Elimination System (NPDES) permits to be issued by the DEP. Requirements for these construction stormwater permits include the development and implementation of erosion and sediment control plans. These plans define BMPs used to reduce construction-related erosion and sediment impacts. Erosion and sedimentation control measures would be implemented in accordance with the NPDES permits. Stornwater Pollution Prevention Plans (SWPPPs) would be developed and used during construction. The project SWPPPs would be consistent with the Airport's SWPPP which lists BMPs that are implemented during construction activities at the airport.

The projects will require USACE Section 404/Section 10 permits. The USACE issued a Nationwide and regional General Permit for the ALS. A combined Section 404 permit is currently being processed for the RSA and taxiway projects. The USACE issued the public notice for this permit. In additional to the USACE permits, the projects will require Environmental Resource Permits (ERP) from the St. Johns River Water Management District (SJRWMD). Three ERP applications (ALS and Control Panel; RSA Restoration (East) and Mitigation; and Taxiway C Replacement, Tidal Canal Relocation, and RSA Improvement) have been submitted to the SJRWMD for their review and the Airport Sponsor is currently responding to requests for additional information. Approval of the ERPs will also provide the water quality certification needed to comply with guidelines of the Clean Water Act.

Potential water quality impacts during construction would be minimized through the implementation of a Soil Erosion and Sedimentation Control Plan as required under FAA Standards and Specification Item P-156 and FAA Advisory Circular 150/5370-10. Sediment controls would be utilized during construction to prevent eroded soil particles from leaving the construction site. This would be accomplished by using sheet piling constructed around the project site to a depth of approximately 15 feet below the surface to accommodate de-mucking and

back filling. Turbidity curtains would also be established within the open water areas of the project site to contain sediment movement due to tidal influences. Erosion control measures would be used to contain sediment movement from entering the adjacent saltmarsh habitats during landside construction.

Construction—Solid Waste: Construction would temporarily generate solid waste in the form of construction debris that would be disposed of in an appropriate construction or municipal landfill by the contractor(s). Adequate landfill capacity exists at the proposed disposal. No adverse construction-related solid waste impacts would be expected to occur.

Construction—Hazardous Materials: Potential hazardous material storage at the project site during the construction phase is directly related to contractor operations. The Airport would require that construction contractors implement mechanisms to store any hazardous materials and properly dispose of the hazardous and special wastes, including developing and implementing a Spill Prevention and Control Countermeasure (SPCC) plan. As a result, no significant impact from hazardous materials is anticipated with the implementation of the projects.

Federally Listed Threatened and Endangered Species -- The primary impacts to federally listed species as a result of the proposed project would be due to habitat loss. The projects would impact saltmarsh and open water habitats. These habitats are used by federally listed species including wood storks, manatees, piping plover, and American alligators.

√ *Easter Indigo Snake* - The State of Florida Effect Determination Key for the Eastern Indigo Snake in Central and North Peninsular Florida[17] states that if "there are no gopher tortoise burrows, holes, cavities, or other refuge where a snake could be buried or trapped and injured during project activities" then the project is "Not Likely to Adversely Affect" the species. There are no gopher tortoise burrows or suitable habitat on the project site, therefore the determination is that these projects are "Not Likely to Adversely Affect" the Eastern Indigo snake.

√ *Atlantic and Shortnose Sturgeon* – Although suitable habitat exists for Atlantic and shortnose sturgeon; it is highly unlikely that either species will be present within the proposed project area. However, as a precaution, the Airport Sponsor would implement the *Sea Turtle and Smalltooth Sawfish Construction Conditions* as a special condition of any permit issued. Neither the NMFS or the USACE have raised concerns regarding these species. Therefore the effect determination is that these projects are "Not Likely to Adversely Affect" the Atlantic or Shortnose Sturgeon.

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[17] USFWS. 2008. USFWS Jacksonville Ecological Services Field Office State of Florida Effect Determination Key for the Eastern Indigo Snake in Central and North Peninsular Florida. 3 pp.

√ *Florida (East Indian) Manatee* - probability of manatees occurring in the proposed project area is very low as the open water areas in the proposed project area are shallow and do not contain seagrass. However, as a precaution, a Manatee Protection Plan including the *Standard Manatee Conditions for In-Water Work* would be developed during the permitting process and enforced during construction activities. Turbidity curtains would also be installed. Therefore the effect determination is that these projects are "Not Likely to Adversely Affect" the Florida manatee.

√ *Piping Plover* - Both saltmarsh and open water habitats are regularly used by piping plovers and wood storks. Only one sighting of a piping plover was observed during the listed species surveys. Suitable nesting habitat for the plover does not exist and due to the fact that the bird was observed loafing on a rock, it was likely the bird was just passing through. No foraging activities were observed. No concerns have been raised by the FWS regarding impacts to the piping plover. Therefore the effect determination is that these projects are "Not Likely to Adversely Affect" the piping plover.

√ *Wood Stork* - Core Foraging Habitat for the wood stork exists within the proposed project area. However, the majority of the habitat that satisfies the criteria of the wood stork Core Foraging Habitat consists of a previously dredged canal and ditch. Furthermore, adjacent areas, outside of the proposed project area, are available for foraging wood storks that are of suitable, if not higher, quality than those habitats in the proposed project area. It is expected that wood storks would utilize these adjacent suitable habitats during construction and as a result, are not expected to be impacted during construction. After construction, significant amounts of suitable wetland habitat would remain adjacent to the proposed project area to support the wood storks. Therefore, only minimal impacts to wood storks are expected. In addition, the USFWS North Florida Field Office Programmatic Concurrence letter (USFWS, 2008) lists certain criteria that must be met for a project to "Not Likely to Adversely Affect" the wood stork (Appendix O in the EA provides a list of these criteria). The projects would meet these criteria as the mitigation proposed will be sufficient to satisfy the Clean Water Act 404(b)(1) guidelines and is not contrary to the Habitat Management Guidelines for the wood stork. Suitable foraging habitat impacts were avoided and minimized to the greatest extent practicable. The proposed mitigation will replace the foraging habitat being impacted with similar (if not higher quality) habitat type and hydroperiods and will occur within or in proximity to the Core Foraging Area (13 miles from the known nesting colony location). It is anticipated that the proposed mitigation will provide foraging habitat with similar, if not better, prey availability, hydrology, and water quality than what is being impacted. Therefore the effect determination is that these projects with mitigation are "Not Likely to Adversely Affect" the wood stork or its habitat. The final

effects determination for the wood stork will occur during the USACE permitting process.

√ American Alligator - Saltmarsh and brackish waters are often utilized by alligators; however it is not the species' preferred habitat. The projects would result in a loss of both saltmarsh and open water habitats; however, significant areas of wetlands occur adjacent to and in proximity to the airport but well outside of the proposed project area. This habitat is of a higher quality for alligators than that which is proposed to be impacted and it is a greater distance from the airport, is more isolated, and may be of lower salinities. It is expected that any alligators present in the proposed project area will move to these adjacent suitable habitats during and after construction. After construction, areas of wetland habitat will still remain to support the alligators. Therefore the effect determination is that these projects are "Not Likely to Adversely Affect" the American alligator.

Appropriate mitigation will be provided to compensate for impacts to federally listed species. Mitigation will be provided within the same watershed, in Class II waters, and within or directly adjacent to the wood stork Core Foraging Area (13 miles from the known nesting colony location) to satisfy the criteria such that the project will not adversely affect the species. Section 7 consultation with NMFS and USFWS was initiated during the permitting process pursuant to Section 7(a) of the Endangered Species Act.

Energy Supplies, Natural Resources and Sustainable Design -- There would be a negligible increase in consumption of electricity due to the operation of the proposed new ALS at the Runway 31 approach. The primary materials that would be used during the construction would be fill material and paving materials. None of these materials are composed of natural materials considered to be scarce or unusual. Fuel consumption would increase in the short term due to the operation of heavy construction equipment. In the long term, due to reduction in taxiing and idling time, fuel consumption would be less. .Construction of the proposed project will utilize BMP's that would avoid and minimize impact to adjacent habitats and water quality. In addition, the Airport is in the process of developing a Sustainable Management Plan that would include measures and initiatives that would be implemented and/or recommended during construction of Airport development projects. These sustainable initiatives include the development and implementation of erosion and sediment control management practices, air quality measures, an SPCC plan, and recycling of construction materials. The proposed project would not create a demand for energy that would exceed supply nor does it require special materials for construction. Therefore, the proposed project would not result in significant impacts related to energy supply and natural resource consumable materials.

Floodplains -- For the Proposed Project, flooding impacts from both coastal flooding hazards and from localized pluvial flooding were evaluated. While both types of flooding have an equal estimated probability of occurring, coastal

flooding is the greater of the two hazards and the source of flooding shown on FEMA's Flood Insurance Rate Map (Map Number 12109C304H). Because the coastal flooding hazard is determined by a static water surface elevation from the Atlantic Ocean and not by floodplain volume, the fill from the proposed projects does not increase the flood hazard and does not require compensating storage per the St. Johns County Land Development Code. The pluvial flooding effects of the project were also studied in detail and determined to have minor and insignificant offsite effects.

Hazardous Materials -- According to the Phase I Environmental Site Assessment (ESA), there are no known hazardous materials or hazardous material storage sites within the proposed project area; therefore no impacts to hazardous materials sites would be anticipated as a result of the projects. There were several potential hazardous material sites listed in the vicinity of the proposed project area but were unlikely to pose a threat to the construction of the proposed project. Construction of the projects would require NPDES permits that requires a SWPP Plan, which details erosion and sediment control measures that would be implemented prior to the commencement of, during, and after construction activities in order minimize impact to wetlands, the surrounding plant communities, and water quality. The SWPPP would include proper management of petroleum and related substances associated with construction equipment, thereby avoiding or minimizing the risk of causing environmental contamination. In addition to a construction SWPPP, the Airport's SWPPP requires identification of all potential pollutant sources on the Airport and implementation of appropriate BMPs to ensure that incidental discharges are documented, reported, and cleaned up immediately.

Light Emissions and Visual Impacts –

√ *Approach Lighting System*: In order to minimize light emissions and wetland impact, an intermediate ALS is being installed 1,800 feet from the end of the RSA instead of the full 2,400 feet. The lights for the ALS are uni-directional and light emissions and visual impacts from the ALS will be nominal. The proposed project ALS will require a modification of standard (MOS) request from the FAA to allow the length reduction of the ALS from 2,400 feet to 1,800 feet. This MOS is currently under review by the FAA.

√ *Airfield Lighting System*: Because the edges of the taxiway would be lit during periods of darkness or during restricted visibility conditions, the proposed Taxiway 'C' replacement under the proposed project would increase the amount of light emissions within the proposed project area. The proposed lighting would be parallel to existing lighting along the eastern section of Runway 31, located approximately 10 feet from the edge of pavement and elevated approximately one foot above ground level. Because this area of the airport already has existing airfield lighting and the nearest residence is located over 900 feet southeast from the end

of Runway 13-31 and over 600 feet from the proposed end of the Taxiway 'C' replacement, light emissions and visual impact is anticipated to be minimal.

√ *Aircraft Lighting*: No additional impacts are anticipated from arriving and departing aircraft under the proposed project because the project would not result in an increase in aircraft operations or fleet mix. The air space used by arriving and departing aircraft would be unchanged.

The FAA has not established significant thresholds for light emissions and visual impacts (Table 7-1, FAA Order 5050.4B). The proposed project has minimal light emissions and visual impacts and is not anticipated to result in any additional impacts to natural resources or increase lighting effects on residential areas or other light sensitive areas or habitat.

Noise Impacts -- The proposed project would not result in any change to the airport runway configurations, aircraft operations, aircraft types using the airport, or aircraft flight characteristics. A noise analysis was not required. Only a minor change to the taxiway configuration of Taxiway 'C' is proposed and this minor change would not result in any change to the airport noise environment. Construction related noise is anticipated to be intermittent, temporary, limited to daytime hours, and minimized with the implementation of BMPs. Implementation of the proposed project would not result in a significant noise impact when compare to the No Action Alternative.

Social Impacts -- The projects would not have direct, indirect or induced socioeconomic impacts because the proposed project would be constructed on Airport property, would not require the acquisition of new property, would not have the potential for disturbing sites with hazardous material contaminants, or affect the business community, transportation capability, planned development, or employment. Temporary socioeconomic benefits to the local community would be anticipated as a result of the construction of the proposed project. It is not anticipated that there would be any significant impact to children's health and safety caused by the projects.

Solid Waste -- Solid waste, in the form of construction and demolition debris would be generated in association with the construction of the project. This waste can be accommodated by the existing construction and demolition debris landfill. Construction debris that can be re-used would be stored at the Airport's maintenance facility for future use. There would be no significant solid waste impacts due to the Proposed Project.

Water Quality -- Potential water quality impacts could include temporary water quality impacts due to increased turbidity, sedimentation, and erosion during construction and, in the long term, potential increased runoff volume from the additional 2.91 acres (5.16 acres of new pavement to be added, 2.25 acres of

existing pavement to be removed, net increase 2.91 acres) of impervious pavement for the replacement of Taxiway 'C'.

To address temporary impacts, individual NPDES permits would be obtained from FDEP for the construction phase of each of the projects. As part of the permit conditions, treatment of stormwater runoff would be required to control and minimize turbidity, sedimentation, and erosion during construction. Treatment methods would be detailed in the construction SWPPP. The drainage design of the projects would incorporate stormwater treatment measures that would minimize potential long term water quality impacts once the project is constructed. This design would be based on the findings and recommendations presented in FDOT's Florida Statewide Airport Stormwater Study Best Management Practices Manual (2005).

The projects would impact waters designated as Class II waters that are conditionally approved for shellfish harvesting by the state. The SJRWMD will require that a variance to the Class II water regulations be obtained for the project. A water quality protection plan will be developed to protect the Class II waters and a petition for a variance will be submitted to the SJRWMD.

Surface Water Quality: There would be temporary impacts from increased turbidity, sedimentation, and erosion during construction. In the long term, no significant surface water quality impacts would be anticipated. Although the additional 2.91 acres of impervious pavement for the replacement of Taxiway 'C' would generate increased runoff, the stormwater treatment measures that would be incorporated into the design would minimize potential water quality impacts from stormwater runoff. Permanent impacts from filling and dredging of wetlands and surface waters within the proposed project area are required for the restoration of the RSA and the replacement of Taxiway 'C'. The primary impact to surface water quality would occur during construction. An NPDES permit for a large construction activity would be obtained from FDEP. A SWPPP would be developed for inclusion in the construction plan set to establish sediment and erosion control measures that would be implemented during the construction phase of the project. Control measures may include the use of synthetic hay bales, turbidity barriers, silt fence, seeding and or sodding, geotextile mats, and other best management practices as set forth in the State of Florida Erosion and Sediment Control Designer and Reviewer Manual[18] and FAA AC 150/5370.10B, *Standards for Specifying the Construction of Airports.* The construction plans would also specify the sequence of land disturbing activities and the BMP implementation sequence. Specifying the construction sequence can help to limit the amount of soil disturbance that occurs at any one time during the construction phase of the project, thereby reducing the likelihood of soil erosion. Another important component of the construction SWPPP is the spill prevention component. This component would specify the measures that would be

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[18] Florida Department of Transportation and Florida Department of Environmental Protection, *Florida Erosion and Sediment Control Designer and Reviewer Manual*, 2007.

employed to avoid the spilling of hazardous materials, such as fuels, at the construction site, and in the event of a spill, would specify the means of cleaning up the spill. The measures in the construction SWPPP would be consistent with the Airport's operational SWPPP, which is associated with the BMPs recommended in the Airport's NPDES Multi Sector Generic Permit. By implementing the control measures in the construction SWPPP, it is anticipated that increases in turbidity, sedimentation of areas beyond the project's limits, and erosion of soil from disturbed areas would be minimized and disturbance would be contained within the project limits to the maximum extent practicable. After construction of the project is complete, it is anticipated that further water quality impacts would be negligible.

Overland flow is an effective method of concentration reduction and load reduction for metals.[19] The proposed project proposes to utilize this type of overland flow treatment to ensure that state water quality standards are met once the construction is completed. Runoff from the proposed taxiway extension would be treated in grassed areas adjacent to the taxiway. The project would be designed according to SJRWMD standards such that, for the 3-year 24-hour storm event, 100 percent of the runoff would percolate into the soil. Additionally, the soils in the overland flow areas would be aerated to improve infiltration. Runoff from the project area that does not percolate would be collected in inlets within the grassed areas between Runway 13-31 and Taxiway B that would connect to three existing 48-inch diameter reinforced concrete pipes. These pipes currently discharge into the short ditch at the north side of the stormwater pond, east of the control tower. These pipes would be extended beneath the fill slope adjacent and parallel to the west side of proposed Taxiway C replacement for a linear distance of approximately 800 feet. At the end of the extended pipes, a new outfall would be constructed that would discharge to the relocated tidal canal.

Operations-Related Water Quality Impacts: The proposed project is not intended to increase operations or alter the fleet mix at the airport, therefore, pollutants originating from aircraft would not be anticipated to increase as a result of the proposed project in comparison to the No Action alternative. No substantial impacts to water quality resulting from operational activities are anticipated.

Groundwater and Water Supply: The project disturbance primarily consists of fill rather than excavation. Therefore the only impacts to groundwater would be minor disturbance to the surficial aquifer if excavation below the water table is required to install new pipe connecting the drainage system from the area between Runway 13-31 and the proposed Taxiway 'C' replacement to the new proposed outfall on the west side of the taxiway. Because the project is located within an aquifer discharge area, instead of an aquifer recharge area, no impacts to the water quality of groundwater would be anticipated. Finally, because there would be no increase in operations as a result of the project, and because the

[19] FDOT 2008.

project is not anticipated to induce growth at the airport, no effect to water supply is anticipated.

According to FAA Order 1050.1E, a proposed project's water quality impacts may be considered to be significant for three primary reasons: the project has the potential to exceed water quality standards; water quality problems cannot be avoided or satisfactorily mitigated; there will be difficulty obtaining a permit or authorization. None of these conditions is anticipated.

Wetlands **--** Potential impacts to wetlands and surface waters were quantified and the mitigation of unavoidable impacts was addressed.. The estimated functional loss for unavoidable project impacts was calculated as 6.06 UMAM units, using the State of Florida's Uniform Mitigation Assessment Method (UMAM). Temporary impacts to saltmarsh would be mitigated by replanting the temporarily impacted areas to return them to their previous conditions. The mitigation calculations and proposal are subject to the review and approval of the SJRWMD and USACE, therefore the impacts may change during the permitting phase of the project.

The construction of the proposed project would result in impacts to wetlands and surface waters. The projects would permanently impact approximately 7.5 acres of intertidal saltmarsh wetlands and sand flats (FLUCFCS types 6420 and 6500) and 2.6 acres of surface waters including excavated embayments and tidal canals (FLUCFCS type 5100). Approximately 4.7 acres of temporary impacts to saltmarsh and sand flats and 1.3 acres of temporary impact to surface waters would occur as a result of construction activities. These impacts are based on preliminary design. As permitting is finalized, the impacts included in the design will be further reduced to the extent practicable.

Permitting: Wetland and surface water impacts will require permits from the USACE and the SJRWMD as authorized under Section 404 of the Clean Water Act and Chapter 373 of the Florida Statutes, respectively. As the federal government's lead permitting agency for the wetland and water of the United States (surface water) impacts associated with the project, the USACE will also need to demonstrate that issuance of the permit will not result in significant impacts per the requirements of NEPA. The USACE is a cooperating agency on this EA and will adopt this EA to satisfy their requirements under NEPA.

The Proposed Action has been separated into three projects for the purpose of state permitting and two projects for federal permitting. Three Environmental Resource Permit (ERP) applications have been submitted to the SJRWMD for the three projects and are currently under review. A Section 404 permit for the construction of the ALS has been issued by the USACE. A Section 404 permit application for the Taxiway C and RSA improvements has been submitted to the USACE and a Public Notice was published in May 2010.

The USACE provided comments on the Draft EA in January 2010.[20] The USACE commented that based on information contained in the Draft EA, that while a final determination would not be made until the USACE had completed their regulatory review, it appears that the identified preferred alternative may be the Least Environmentally Damaging Practicable Alternative (LEDPA), and that mitigation alternatives are available that would adequately compensate any unavoidable impacts to aquatic resources associate with the final project.

Avoidance and Minimization: Because of FAA design requirements, total avoidance of wetlands and surface waters would not be possible with any of the build alternatives that were evaluated in the Alternatives section of the EA (Section 2.03). The objectives of meeting FAA standards and enhancing safety and operational efficiency were weighed against the negative impacts to wetlands and surface waters for each of the alternatives. The extent of wetland and surface water impact was a primary consideration that was evaluated in the alternative evaluation process.

√ *Taxiway 'C' Replacement:* For the Taxiway 'C' replacement component of the project, six build alternatives were evaluated. Of the six build alternatives that were considered, four had lower wetland and surface water impacts than the proposed project for the Taxiway 'C' component of the project, Alternative 3. However, as described in Section 2.03 of the EA, those alternatives (Alternatives 2, 4, 5, and 6) would not have sufficiently addressed the FAA standards and operational efficiency needs of the Airport. Alternative 7 would have potentially provided improved operational efficiency in comparison to the proposed project, but it would have resulted in greater wetland and surface water impacts than Alternative 3 and greater overall cost. Alternative 3, the preferred Taxiway C alternative, addresses the stated purpose and need for the project, while at the same time minimizing impacts to wetlands and surface waters.

An additional design element, per FAA A/C 150/5300-13, included to minimize impacts was the use of steeper sideslopes along the relocated tidal canal adjacent to the Taxiway 'C' replacement. In this area, three to one sideslopes were used on the east bank of the canal and four to one sideslopes were used on the west bank of the canal. Using these dimensions allows the cross sectional area of the canal to be maintained with a narrower footprint, resulting in reduced wetland impacts to the adjacent saltmarsh than if a shallower, wider canal was constructed.

Additionally, the original design concept called for using rip rap to armor the taxiway sideslopes and relocated canal bank. This concept was modified so that the sideslopes will be constructed using a prepared

[20] Letter from USACE to FAA, January 22, 2010.

surface of Armorflex 30 (or an equivalent product). This type of material is an interlocking mesh of concrete blocks that are connected by cables to form an articulating sheet. The individual blocks of the material have open cells that will be planted with native vegetation on the slope. This technique will provide for slope stabilization and erosion control while allowing for the establishment of native saltmarsh vegetation below the wetland boundary on the newly constructed sideslopes.

√ *Approach Lighting System:* The original concept for the ALS at the Runway 31 approach included a full 2,400 foot lighting system. To decrease impacts to the salt marsh community that occurs south of Runway 13-31 in the area where the ALS would be installed, and based on the results of an FAA study on approach lighting systems, the proposed lighting system design was shortened to 1,800 feet. The only wetland impacts from the ALS would be the permanent impact from the footprint of the lighting support pole structures and the temporary impact due to construction when the poles are installed. The proposed project ALS will require a modification of standard (MOS) request from the FAA to allow the length reduction of the ALS from 2,400 feet to 1,800 feet. This MOS is currently under review by the FAA.

√ *Runway Safety Area:* To meet FAA safety design standards, the grade of the RSA needs to be restored in the eroded areas, and to minimize the effects of erosion in the future, the side slopes of the RSA need to be stabilized. For the RSA sideslopes at the shoreline on the east side of the proposed project area, six to one sideslopes were included in the conceptual design. Although four to one sideslopes would have decreased the impact area, this portion of the project is more exposed during severe weather events. Therefore, it was determined that, although it will have an increased initial impact area, the more standard six to one sideslope would provide the stability needed to minimize future erosion and therefore minimize the long term sedimentation effects to the adjacent salt marsh. The majority of the RSA at the end of Runway 31 will remain at existing grade but will be stabilized with Armorflex or an equivalent. For the portion of the RSA that will be regraded at the end of Runway 31, a four to one slope was employed. This portion of the RSA is not as exposed as the east side of the RSA, and given the proximity of the canal to the existing toe of slope of the RSA, a four to one slope will provide sufficient shoreline stabilization while minimizing surface water and wetland impacts. This is the steepest sideslope that would be acceptable per FAA design standards. Regraded portions of the RSA sideslopes at the end of Runway 31 will also be constructed using Armorflex or an equivalent. .

Minimization of Impacts during Construction: In addition to design elements that were incorporated to minimize impacts, BMPs would be implemented during

construction to minimize potential sedimentation and erosion impacts to wetlands and other surface waters adjacent to the project during the construction phase.

Compensation for Impacts: A UMAM analysis was performed for the anticipated permanent impacts that would result from the construction of the proposed project. The UMAM analysis is summarized below in **Table 1** *UMAM Analysis of Permanent Impacts*. Based on the analysis performed, 6.06 units of permanent wetland functional loss would need to be mitigated.

UMAM analysis was not performed for the temporary construction access impact areas because the Airport is proposing to grade these areas to preconstruction grade (where necessary) following the completion of construction activities and to replant these areas with suitable saltmarsh species to return them to preconstruction conditions. Therefore, for these areas, there would be no permanent loss of wetland function.

UMAM analysis was also used to estimate the anticipated lift or functional gain of proposed restoration of the spoil island. The functional gain of the restored spoil island was preliminarily calculated as 8.16 units.. Since the anticipated functional gain is greater than the functional loss of 6.06 units, the restoration of the spoil island should compensate for proposed impacts. All UMAM calculations will be finalized during the USACE and SJRWMD permitting process..

Significant Impact Threshold: With proposed mitigation of the spoil island, impacts to wetlands would be mitigated to below levels of significance.

Table 1
UMAM Analysis of Permanent Impacts

Section	Cowardin (USFWS) Classification	FLUCFCS Code and Description	Permanent Impact (Acres)	UMAM Delta	Functional Unit Loss
East	E1UBLx – Excavated embayment	5100-Streams and Waterway	0.16 fill	0.633	0.10
	E2EM1P – Estuarine intertidal saltmarsh	6420-Saltwater Marshes	3.92 fill	0.700	2.74
	E2USP – Sand and mud flats	6500-Non-vegetated Wetlands			
South	R1UB2/3Nx – Tidal canal	5100-Streams and Waterway	0.11 dredge	0	0
	E2EM1P - Estuarine intertidal saltmarsh	6420-Saltwater Marshes	0.01 fill	0.767	0.01
West	R1UB2/3Nx - Tidal canal	5100-Streams and Waterway	2.16 fill	0.567	1.22
			0.14 dredge	0	0
	E2EM1P - Estuarine intertidal saltmarsh	6420-Saltwater Marshes	2.93 fill	0.667	1.95
			0.6 dredge	0.67	0.04
Totals			10.03	-	6.06

*Source: Birkitt Environmental Servies, Inc., Table 4.15-2 in the EA.

Cumulative Impacts – A cumulative impacts analysis is resource specific. The analysis should concentrate on those impact categories that the Proposed Action would affect. The categories that are anticipated to be impacted by the projects primarily include:

- √ Biotic Resources;
- √ Federally Protected Species;
- √ Water Quality; and,
- √ Wetlands.

Other categories that would not be impacted by the projects but that would potentially be impacted by other past, present, or reasonably foreseeable projects and considered in the cumulative impacts analysis include noise and air quality.

Table 2 *Cumulative Impact Analysis- St. Augustine Airport Environmental Assessment,* summarizes the cumulative impacts analysis for past, present and reasonably foreseeable future projects. When considered together with other past, present, and reasonably foreseeable future development projects on or off the airport, federal or non-federal, the proposed projects with required mitigation would not produce a significant cumulative effect on any of the environmental impact categories. The EA provides additional information regarding cumulative impacts.

MITIGATION MEASURES: The proposed project will result in unavoidable impacts to wetlands, surface waters, biotic communities, wildlife, and water quality. The mitigation chapter of the EA (Chapter 5) describes the mitigation options pursued, the viable mitigation options available, and the conceptual measures proposed to compensate for environmental impacts. The conceptual measures are preliminary and qualitative explanations of each mitigation measure were developed in consultation with the federal and state agencies that have jurisdiction over these natural features. These agencies were contacted to initiate coordination and solicit comment and guidance on potential mitigation options. Jurisdictional agencies consulted with included the USACE, SJRWMD, NMFS, USEPA, USFWS, and FWC. Final mitigation plans and regulatory requirements and conditions will be determined during the permit application process.

The EA (Appendix R) describes in detail the mitigation options identified for compensating for wetlands, open water, wildlife, EFH, oyster, and water quality impacts associated with the projects. Mitigation opportunities were identified from various sources including, but not limited to: regulatory and resource agency staff including NMFS, SJRWMD, USACE,USFWS, St. Johns County, GTMNERR (Appendix S), Christine Wentzel of SJRWMD, and a local board member of the Guana Tolomato Matanzas National Estuary Research Reserve (GTMNERR).

Mitigation options evaluated included land acquisition, restoration/creation, and other opportunities. On-site and off-site options were considered. The best and most viable alternative at this time is restoration of an on-site spoil island that is owned by the Airport on the south side and by the state of Florida on the north side. The proposed restoration of the entire spoil island provides sufficient in kind mitigation within the same hydrologic basin and Class II waters as the proposed impacts. The conceptual mitigation plan for the spoil island is summarized below:

Restoration of an historic saltmarsh habitat on Airport property that has been converted to a spoil island property is currently proposed to offset the functional loss of unavoidable impacts from the projects. The island is approximately 18.3 acres in size. The southern portion (approximately two-thirds) of the spoil island is owned by the Airport Authority and approximately 7 acres along the northern portion is owned by the state. According to the UMAM analysis, restoration of the spoil island will provide an estimated 8.18 units of functional gain to offset the 6.06 units of functional loss from the proposed projects.

Following restoration completion, monitoring and maintenance of the spoil island will occur semi-annually for a minimum of three years or until SJRWMD and USACE success criteria have been met. The success criteria will be determined during the permitting process by both SJRWMD and USACE. The monitoring and maintenance will help ensure the successful establishment of saltmarsh habitat that is similar to the surrounding areas.

Additionally, oysters will be either relocated from the proposed project area or new oyster shells will be placed at the toe of slope of the RSA to create a "living shoreline."

The Airport is committed to protecting listed species and compensate for potential impacts to federally and state protected species. A Manatee Protection Plan including the *Standard Manatee Conditions for In-Water Work* will be developed during the permitting process and will be implemented by the Airport Sponsor during construction. The Airport Sponsor will also implement the *Sea Turtle and Smalltooth Sawfish Construction Conditions* as a special condition of any permit issued. Proposed mitigation will also replace the wood stork foraging habitat being impacted with similar (if not higher quality) habitat type and hydroperiods within the Core Foraging Area (13 miles from the known nesting colony location).

Table 2
Cumulative Impact Analysis
St. Augustine Airport Environmental Assessment
July 2010

Project Name	Timeframe	Impact	Mitigation	Proposed/ Implemented Mitigation	Cumulative Impacts
South General Aviation Development	Past	Water quality	Fully Mitigated	• Temporary sediment and erosion control methods during construction. • Permanent swales and stormwater ponds. • Numerous septic systems were removed. • New development was connected to sanitary sewer line.	No
Madeira mixed use development	Past and Present	Biotic Communities (Saltmarsh 0.17 acre)	Fully Mitigated	Compensated for by saltmarsh restoration and wetland enhancement components of wetland mitigation.	No
		Wetlands (Saltmarsh 0.17 acre)	Fully Mitigated	Restoration of 0.21 acre of saltmarsh, 22.43 acres of wetland enhancement, 46.21 acres of wetland preservation, and 25.49 acres of upland buffer preservation. Mitigation was provided in basin.	No
		Essential Fish Habitat (Estimated 0.17 acre)	Fully Mitigated	Compensated for by saltmarsh restoration component of wetland mitigation.	No
		Woodstork Foraging Habitat	Fully Mitigated	Compensated for by saltmarsh restoration and wetland enhancement components of wetland mitigation.	No
		Water Quality	Fully Mitigated	Measures for containing sediment and treating stormwater runoff both during and after construction incorporated in design, reviewed and approved during USACE, SJRWD, and FDEP NPDES permitting process.	No
Flagler Crossing mixed use development	Past and Present	Wetlands (Freshwater 5.91 acres under SJRWMD jurisdiction only)	Fully Mitigated	• Wetlands and biotic communities that were impacted by the project were not saltmarsh therefore the impact was not overlapping in wetland/community type. • Wetlands impacted were not USACE jurisdictional wetlands. • SJRWMD jurisdictional wetland impacts were mitigated for in basin according to the conditions of the SJRWMD ERP. • The mitigation was the preservation of 7.55 acres of wetlands and 8.17 acres of uplands.	No

Table 2
Cumulative Impact Analysis
St. Augustine Airport Environmental Assessment
July 2010

Project Name	Timeframe	Impact	Mitigation	Proposed/ Implemented Mitigation	Cumulative Impacts
Flagler Crossing mixed use development	Past and Present	Water Quality	Fully Mitigated	Measures for containing sediment and treating stormwater runoff both during and after construction incorporated in design, reviewed and approved during SJRWD and FDEP NPDES permitting process.	No
North Airside Hangar Development	Future	Wetlands (Freshwater up to 9.8 acres potential impact)	Would be fully Mitigated	• Wetlands and biotic communities that would be impacted by the project are not saltmarsh therefore the impact would not be overlapping in wetland/community type. • Impacts would be mitigated for in basin according to the conditions of the USACE 404 permit and SJRWMD ERP.	None anticipated.
		Water Quality	Would be fully Mitigated	Measures for containing sediment and treating stormwater runoff both during and after construction would be incorporated in design, reviewed and approved during USACE, SJRWD, and FDEP NPDES permitting process.	
Airport Industrial Park Infrastructure	Future	Wetlands (Freshwater, acreage undetermined)	Would be fully Mitigated	• Wetlands and biotic communities that would be impacted by the project are not saltmarsh therefore the impact would not be overlapping in wetland/community type. • Impacts would be mitigated for in basin according to the conditions of the USACE 404 permit and SJRWMD ERP.	None anticipated.
		Water Quality	Would be fully Mitigated	Measures for containing sediment and treating stormwater runoff both during and after construction would be incorporated in design, reviewed and approved during USACE, SJRWD, and FDEP NPDES permitting process.	
Multimodal Terminal Facility	Future	Wetlands (Freshwater up to 3 acres potential impact)	Would be fully Mitigated	• Wetlands and biotic communities that would be impacted by the project are not saltmarsh therefore the impact would not be overlapping in wetland/community type. • Impacts would be mitigated for in basin according to the conditions of the USACE 404 permit and SJRWMD ERP.	None anticipated.

Table 2
Cumulative Impact Analysis
St. Augustine Airport Environmental Assessment
July 2010

Project Name	Timeframe	Impact	Mitigation	Proposed/ Implemented Mitigation	Cumulative Impacts
Multimodal Terminal Facility	Future	Water Quality	Would be fully Mitigated	Measures for containing sediment and treating stormwater runoff both during and after construction would be incorporated in design, reviewed and approved during USACE, SJRWD, and FDEP NPDES permitting process.	None anticipated.
		Air Quality	None anticipated, refer to 4.16.5	• Potential for air quality impacts would need to be evaluated as part of the NEPA compliance process for the Multimodal Terminal Facility • It is unlikely that the project would increase pollutants to the extent that it would affect the attainment status of St. Johns County, which is currently classified 'in attainment.'	
Extension of Runway 31	Future	Biotic Communities (Saltmarsh 11.9 acres tidal canal 1.3 acres)	Would be fully Mitigated	In kind wetland mitigation would be required for the USACE and SJRWMD permits. Mitigation would need to replace lost habitat functions.	None anticipated.
		Wetlands (Saltmarsh 11.9 acres tidal canal 1.3 acres)	Would be fully Mitigated	Impacts would be mitigated for in basin according to the conditions of the USACE 404 permit and SJRWMD ERP.	
		Essential Fish Habitat	Would be fully Mitigated	Mitigation for EFH impacts would be coordinated with NOAA fisheries and implemented as a condition of the USACE permit.	
		Woodstork Foraging Habitat	Would be fully Mitigated	Mitigation for woodstork core foraging habitat impacts would be coordinated with USFWS and implemented as a condition of the USACE permit.	
		Water Quality	Would be fully Mitigated	Measures for containing sediment and treating stormwater runoff both during and after construction would be incorporated in design, reviewed and approved during USACE, SJRWD, and FDEP NPDES permitting process.	
		Noise	Would be fully Mitigated, if necessary	It is likely that a new noise analysis would be required as part of the NEPA documentation for the runway extension project. If an analysis determined that impacts to sensitive noise receptors would result from the project, mitigation would likely be provided.	

Table 2
Cumulative Impact Analysis
St. Augustine Airport Environmental Assessment
July 2010

Project Name	Timeframe	Impact	Mitigation	Proposed/ Implemented Mitigation	Cumulative Impacts
Taxiway B Bridge	Future	Wetlands (Freshwater, acreage undetermined)	Fully Mitigated, If necessary	• Wetland impact acreages are unknown at this time because the location of the bridge has not been finalized. • Wetlands and biotic communities that could potentially be impacted by the project are not saltmarsh therefore the impact would not be overlapping in wetland/community type. • Impacts would be mitigated for in basin according to the conditions of the USACE 404 permit and SJRWMD ERP.	None anticipated.
		Water Quality	Fully Mitigated	Measures for containing sediment and treating stormwater runoff both during and after construction would be incorporated in design, reviewed and approved during USACE (if necessary), SJRWD, and FDEP NPDES permitting process.	
Cordova Palms	Future	Wetlands (Freshwater up to 15 acres potential impact)	Fully Mitigated	• Wetlands and biotic communities that would be impacted by the project are not saltmarsh therefore the impact would not be overlapping in wetland/community type. • Impacts would be mitigated for in basin according to the conditions of the USACE 404 permit and SJRWMD ERP.	None anticipated.
		Water Quality	Fully Mitigated	Measures for containing sediment and treating stormwater runoff both during and after construction would be incorporated in design, reviewed and approved during USACE, SJRWD, and FDEP NPDES permitting process.	
SR 313	Future	Wetlands (Freshwater, acreage undetermined)	Fully Mitigated	• Wetland impact acreages are unknown at this time because the design has not been developed. • Wetlands and biotic communities that could potentially be impacted by the project are not saltmarsh therefore the impact would not be overlapping in wetland/community type. • Impacts would be mitigated for in basin according to the conditions of the USACE 404 permit and SJRWMD ERP	None anticipated.
		Water Quality	Fully Mitigated	Measures for containing sediment and treating stormwater runoff both during and after construction would be incorporated in design, reviewed and approved during USACE, SJRWD, and	

Table 2
Cumulative Impact Analysis
St. Augustine Airport Environmental Assessment
July 2010

Project Name	Timeframe	Impact	Mitigation	Proposed/ Implemented Mitigation	Cumulative Impacts
				FDEP NPDES permitting process.	
Proposed Projects: Taxiway 'C' Replacement, RSA Compliance, and Approach Lighting System	Future	Biotic Communities (7.46 acres of saltmarsh and 2.57 acres of open water)	Fully Mitigated	Habitat function impacts will be addressed by the wetland mitigation proposed for the project.	No
		Wetlands (7.46 acres of saltmarsh and 2.57 acres of open water)	Fully Mitigated	Proposed mitigation will result in no net loss of wetlands and open water habitat functions	
		Essential Fish Habitat (7.46 acres of saltmarsh with oyster beds and 2.57 acres of open water)	Fully Mitigated	Proposed wetland mitigation and relocation of oysters will compensate for EFH impacts.	
		Protected species habitat (7.46 acres of saltmarsh and 2.57 acres of open water)	Fully Mitigated	Woodstork foraging habitat function impacts will be addressed by the wetland mitigation proposed for the project.	
		Water quality	Fully Mitigated	Measures for containing sediment and treating stormwater runoff both during and after construction have been incorporated into the design. These measures will be reviewed during the USACE, SJRWD, and FDEP NPDES permitting process. Agency comments and recommendations will be incorporated into the plans as needed in order to obtain the necessary permits.	
		Air quality	Not required	The Proposed Projects that are the subject of the current NEPA analysis would not result in air quality impacts.	
		Noise	Not required	The Proposed Projects that are the subject of the current NEPA analysis would not result in noise impacts.	

FEDERAL FINDING OF NO SIGNIFICANT IMPACT: I have carefully and thoroughly considered the facts contained in the attached Environmental Assessment (EA). Based on my independent review, I find the EA is consistent with FAA's regulations and is consistent with the Council on Environmental Quality's regulations implementing the National Environmental Policy Act (NEPA) (40 CFR Part 1500) as well as FAA's Orders 1050.1E and 5050.4B for implementing the procedural provisions of NEPA. Consequently, I find the proposed Federal action will not significantly affect the quality of the human environment or include any condition requiring any consultation pursuant to section 102(2) (C) of NEPA. As a result, the FAA issues this Finding of No significant Impact, determining that an Environmental Impact Statement for this action is not necessary.

APPROVED: _____

DATE: 7/30/10

DISAPPROVED: _____

DATE: _____

RECORD OF DECISION AND ORDER

I have carefully considered the FAA's statutory mandate to ensure the safe and efficient use of the national airspace system as well as the other aeronautical goals and objectives discussed in the Final EA. My review of the EA and determination regarding issuance of the FONSI included evaluation of the purpose and need that this proposed project would serve, the alternate means of achieving the purpose and need, the environmental impacts associated with these alternatives, and any mitigation necessary to preserve and enhance the human, cultural, and natural environment.

Under the authority delegated to me by the FAA Administrator, I find the proposed project described in the EA is reasonably supported. I, therefore, direct that action be taken to carry forward the necessary agency actions discussed in the EA and in the attached FONSI. This Record of Decision (ROD) represents the FAA's final decision and approval for the actions identified in the EA and constitutes a final order of the FAA Administrator subject to review by the Courts of Appeal of the United States in accordance with the provisions of 49 U.S.C. 46110. Any party seeking to stay implementation of the ROD must file an application with the FAA prior to seeking judicial relief as provided in Rule 18(a) of the Federal Rules of Appellate Procedure.

APPROVED: _____

DATE: 7/30/10

DISAPPROVED: _____

DATE: _____

Department of Transportation
Federal Aviation Administration
Notice of Finding of No Significant Impact
Record of Decision

Taxiway C Replacement, RSA Compliance, and Approach Light System

Northeast Florida Regional Airport at St. Augustine (SGJ)
(formerly the St. Augustine Airport)

The Federal Aviation Administration (FAA), Orlando Airports District Office, on July 30, 2010, issued a Finding of No Significant Impact (FONSI) and Record of Decision (ROD) for airfield projects at the Northeast Florida Regional Airport at St. Augustine (formerly the St. Augustine Airport). The proposed projects include the replacement of Taxiway C to the Runway 31 end, repairing the Runway 31 Runway Safety Area (RSA) to meet FAA design and safety standards, and the addition of an Approach Lighting System (ALS) to the Runway 31 approach. St. Augustine-St. Johns County Airport Authority, as the Airport Sponsor, made a Draft Environmental Assessment (EA) available for public review in December, 2009. A public hearing was held on January 11, 2010. In addition to the EA, copies of the FONSI and ROD are available for review by the public at the following locations:

Federal Aviation Administration
Orlando Airports District Office
5950 Hazeltine National Drive, Suite 400
Orlando, FL 32822-5024
(407) 812-6331

Northeast Florida Regional Airport at St. Augustine (SGJ)
(formerly St. Augustine Airport)
4796 U.S. Highway 1 North
St. Augustine, FL 32095
(904) 209-0090

Copies of these documents are also available for public review at:

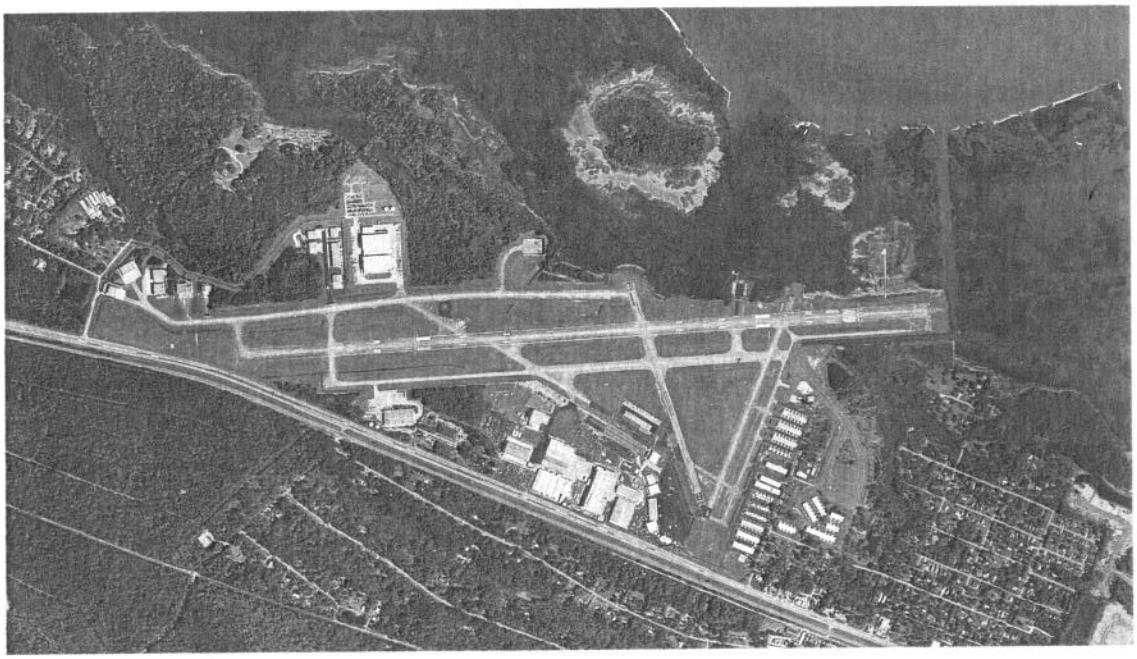
http://www.staugustineairport.com/

NORTHEAST FLORIDA REGIONAL AIRPORT AT ST. AUGUSTINE

(FORMERLY KNOWN AS ST. AUGUSTINE AIRPORT)

ENVIRONMENTAL ASSESSMENT FOR

TAXIWAY 'C' REPLACEMENT, RSA COMPLIANCE, AND APPROACH LIGHTING SYSTEM



JUNE 2010

PREPARED FOR:
ST. AUGUSTINE – ST. JOHNS COUNTY
AIRPORT AUTHORITY
4796 U.S. 1 NORTH
ST. AUGUSTINE, FL 32095

PREPARED BY:
PASSERO ASSOCIATES, LLC
13453 N. MAIN ST, SUITE 106
JACKSONVILLE, FL 32218

This Environmental Assessment becomes a Federal document when evaluated, signed and dated by the Responsible FAA official.

W. [signature] 7/30/10

Responsible FAA Official — Date

NFRA
Northeast Florida Regional Airport
Fly Smart!