

June 10, 2011

CESAJ-RD-SP

MEMORANDUM FOR RECORD

SUBJECT: Department of the Army Environmental Assessment and Statement of Finding for Permit Application for SAJ-2009-01720

1. This document constitutes the Environmental Assessment, 404(b)(1) Guidelines Evaluation, Public Interest Review, and Statement of Findings.

2. Application as described in the public notice:

a. Applicants:

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C/o Shannon LaRocque-Baas, Assistant County Administrator  
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b. Waterway & Location: The project site is located within wetlands and other waters of the U.S. on parcels separated by I-95 and located east of the turnpike, north of Hood Road and south of Donald Ross Road, in Palm Beach Gardens (Sections 26 and 35, Township 41 South, Range 42 East and Section 5, Township 41 South, Range 41 East), in Palm Beach County, Florida. Project waters are connected to an existing stormwater system which flows out to the Intracoastal Waterway.

c. Latitude and Longitude: Latitude 26.877° North, Longitude 80.119° West

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d. Project Purpose and Need

(1) Basic: The basic purpose of this project is to provide commercial facilities and residential housing.

(2) Overall: The overall purpose is to construct a viable, mixed-use commercial and residential development in northern Palm Beach County.

(3) Water Dependency Determination: The project is not water dependent.

e. Proposed Work: The original project was to fill 60.29 acres of wetlands and 2.76 acres of other waters of the United States in order to construct a mixed-use development.

f. Avoidance and Minimization Information: In the permit application and the public notice, the applicants proposed to avoid and preserve 22.92 acres of wetlands on-site.

g. Compensatory Mitigation: In the public notice, the applicants proposed to enhance and preserve 22.92 acres of on-site wetlands and to enhance and preserve an unspecified area of wetlands sufficient to provide 21.82 functional units of mitigation in Palm Beach County's Pine Glades West Advance Mitigation Area.

h. Existing Conditions: The project site consists of approximately 682 acres of mostly undeveloped land. An equestrian training facility currently utilizes a portion of the eastern parcel for boarding and pasture. Portions of both the eastern and western parcels are currently used for equestrian training and contain facilities associated with this use such as barns, riding areas, and riding trails. Past land uses include cattle ranching, and the perimeter of the entire property is fenced. Waters within the site include open water ditches, freshwater marshes, wet prairies, hydric pine flatwoods, and other forested wetlands. A total of 83.21 acres of wetlands and 2.76 acres of ditches are located on-site. Surrounding developments have water management systems with control elevations that range from 6.0 feet to 11.0 feet NGVD. The average wetland elevation on the project site is 15.0 NGVD. The wetlands on the project site exhibit strong indicators of adverse impacts to hydrology such as encroachment of exotic plant species (melaleuca, Brazilian pepper, primrose willow, and torpedo grass), encroachment of upland plant species, soil subsidence, lack of wildlife utilization, and reduction in wetland size over time. The main native upland communities include pine flatwoods (305.98 acres); upland scrub, pine and hardwoods (46.93 acres); pine-mesic oak (17.62 acres); temperate hardwoods (10.80 acres); and dry prairie (0.29 acres). Additional native upland communities on site that are impacted by exotic vegetation include pine flatwoods, disturbed (108.37 acres); and dry prairie/melaleuca (7.17 acres). The uplands also contain unpaved roads, trails and structures associated with the existing onsite equestrian operation.

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The United States Geological Survey (USGS) topographic quadrangles show the property as generally flat topographically. Site visits confirmed that the topography is consistent with the USGS quadrangle. The surface water hydroperiod on the site and in the project vicinity has been substantially altered due to drainage and surrounding land uses. Prior to 1965, the Florida Turnpike was constructed on the property's western side, Hood Road was constructed to the south, and Donald Ross Road was constructed to the north. Between 1981 and 1987, Interstate 95 was constructed through the center of the parcel, bisecting it. Residential development and a school have been developed to the east of the site.

The site is included in the Northern Palm Beach County Improvement District Unit of Development 2. Water levels within the site have been adversely affected by berm/ditch systems and nearby water wells. These developments, along with increased water use in the region, have substantially affected the natural hydrologic regime of wetlands on the property. The existing surface water features on the project site include wetlands, two lateral ditches, and a 60-inch culvert under I-95, connecting the east and west sides of the property. Stormwater runoff generally flows to the wetlands and ditches, which ultimately flow to two stormwater discharge points on the east side of the property. Stormwater from the project site ultimately flows to the Intracoastal Waterway, located about 2.5 miles east of the property.

Mapped soils on the site include Anclote fine sand, Basinger fine sand, Basinger and Myakka sands, depressional, Holopaw fine sand, Immokalee fine sand, Myakka sand, Okeelanta muck, Oldsmar sand, Pinellas fine sand, Sanibel muck, and Wabasso fine sand. Anclote fine sand, Basinger fine sand, Basinger and Myakka sands, depressional, Holopaw fine sand, Okeelanta muck, and Sanibel muck are all considered hydric soils and are commonly associated with wetlands in the region.

i. Project Background: In 2003, The Scripps Research Institute (TSRI) sought to establish a bioscience research facility on the east coast of the United States. In October 2003, the Scripps Funding Corporation was created to encourage TSRI to come to Florida as part of a \$310 million economic stimulus plan. It was thereafter determined by TSRI and State officials that Palm Beach County would be the future location for the new campus. The objective of this new research campus, to be known as Scripps Florida, is to focus on biomedical research, technology development and pharmaceutical development. On 22 February 2005, the Corps issued permit SAJ-2004-2859(IP-AAZ) for the Scripps Biotechnology Research Park, which authorized filling and dredging of jurisdictional waters on 535 acres of the property known as "Mecca Farms". After the issuance of the permit was challenged in Federal Court, the United States District Court ruled on 30 September 2005 that the Corps had violated the National Environmental Policy Act (NEPA) by issuing the permit without adequate environmental review. By Order dated November 10, 2008, the Court vacated the Corps permit and remanded the matter to the Corps for further proceedings consistent with the Court's 30 September 2005 Order.

Following the United States District Court ruling, and after considering several parcels within

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Palm Beach County, the County Commission selected the proposed project site, known as the “Briger Parcel” for TSRI. The parcel was selected because it ranked highest using primarily the selection factors listed in section 5 (d) of this document. The first phase of TSRI is located within the Abacoa Development of Regional Impact (DRI) and the second phase, 1.6 million square feet of research and development area, is proposed within the Briger Parcel. As part of the development agreement, 30 acres were donated and 40 acres sold to Palm Beach County for phase II of the campus. This agreement also established the requirement of sufficient and suitable land to readily provide research and development uses in proximity of the TSRI. As part of this agreement, 2.4 million square feet of biotechnological, biomedical, pharmaceutical, ancillary office space and other related uses were designated for 100 acres directly adjacent to the second phase of Scripps Florida. The Briger site is designated as Mixed Use by the City of Palm Beach Gardens’ Future Land Use Plan. This land use requires the mixture of residential, commercial, office and research uses. As 4 million square feet of research and development was estimated to generate 9,478 new jobs in the area at full project build-out, a development program of 2,700 homes and 500,000 square feet of commercial uses was created for the remaining portions of the DRI. These interdependent uses have been designed to be located within close proximity to allow for multiple modes of transportation. When the Palm Beach Gardens City Council approved the DRI on April 1, 2010, it adopted a master plan and design guidelines which will govern future development within the project. The master plan creates five districts: Scripps Campus District, Biotech District, Town Center District, Neighborhood District and Neighborhood Commercial District.

j. Revised project description: The project is to fill 75.71 acres of wetlands and 2.76 acres of other waters of the United States in order to construct a mixed-use development.

k. Other changes to the project: By letter dated 30 November 2010, the Palm Beach County Board of County Commissioners became the sole applicant for the permit application. The Palm Beach County Board of County Commissioners possesses the requisite property interest to undertake the proposed project.

The applicant initially proposed that the Corps should accept State mitigation previously provided for wetlands I, J, K, and M as required in the SFWMD permit issued to the Town of Jupiter for future harm caused by surficial aquifer groundwater withdrawals. The Corps did not issue a permit for the surficial aquifer groundwater withdrawals as no Corps-regulated activity was proposed. The Corps considered this proposal and determined that for the DA permit review, the wetlands would be assessed based on their current condition and Federal compensatory mitigation would be required for any impacts to these wetlands resulting from this project.

Subsequent to the issuance of the public notice, it was determined that the majority of the on-site wetlands would not remain sustainable in the long term due to on-going and future hydrologic impacts. Therefore, additional impacts to these wetlands were proposed in order to allow

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sustainable, ecologically viable mitigation for these impacts to be achieved off-site. Impacts are proposed to 75.71 acres of wetlands and 2.76 acres of surface waters. To offset impacts to onsite wetlands and ditches, the mitigation plan was revised to include the enhancement and preservation of 7.50 acres of wetland A and 1.72 acres of transitional wetland buffer, enhancement and preservation of 395 acres at the Pine Glades West Advance Mitigation Area, and the purchase of 13.7 herbaceous credits at the Loxahatchee Mitigation Bank. See Section 5 and Section 9 for a complete discussion.

### 3. Authority

Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. §403).

Section 404 of the Clean Water Act (33 U.S.C. §1344).

Section 103 of the Marine Protection, Research & Sanctuaries Act of 1972 (33 U.S.C. 1413).

### 4. Scope of Analysis

#### a. National Environmental Policy Act (NEPA)

##### (1) Factors

(a) Whether or not the regulated activity comprises "merely a link" in a corridor type project: The regulated activity is not a corridor type project.

(b) Whether there are aspects of the upland facility in the immediate vicinity of the regulated activity which affect the location and configuration of the regulated activity: The location and configuration of the regulated activity is affected by the aspects of the upland facilities proposed in the immediate vicinity of the regulated activity. The overall project purpose determined the location and configuration of the regulated activity.

(c) The extent to which the entire project will be within the U.S. Army Corps of Engineers (Corps) jurisdiction: The entire project will be within the Corps scope of analysis, including the uplands at the site, due to location and extent of the jurisdictional wetlands on the project site and endangered species and historic properties concerns.

(d) The extent of cumulative Federal control and responsibility: The Federal control and responsibility includes the responsibility of the Corps to make a Department of the Army (DA) permit decision for the jurisdictional activities proposed and the control of either issuing a permit authorization or a permit denial.

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(2) Determined scope

Only within the footprint of the regulated activity within the delineated water.

Over entire property. The scope of analysis includes the jurisdictional waters at the proposed project site which flow through an existing stormwater system out to the Intracoastal Waterway, and the uplands at the site due to endangered species and historic properties concerns.

b. NHPA "Permit Area"

(1) Tests. Activities outside the waters of the United States are/are not included because all of the following tests are/are not satisfied: Such activity would/would not occur but for the authorization of the work or structures within the waters of the United States; Such activity is/is not integrally related to the work or structures to be authorized within waters of the United States (or, conversely, the work or structures to be authorized must be essential to the completeness of the overall project or program); and such activity is/is not directly associated (first order impact) with the work or structures to be authorized. Due to the number and location of individual wetlands on the site and the area required to be developed to make the project viable, the upland components of the project would not occur but for the authorization of the work within the waters of the United States. The work to be authorized is essential to the completeness of the overall project and the upland activity is directly associated with the work or structures to be authorized in jurisdictional waters.

(2) Determined scope: The permit area includes the jurisdictional waters at the proposed project site and the uplands at the site due to historic properties concerns.

c. Endangered Species Act (ESA) "Action Area"

(1) Action area means all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action.

(2) Determined scope: The action area includes the jurisdictional waters at the proposed project site and the uplands at the site due to endangered species concerns, specifically impacts to the eastern indigo snake.

d. Public notice comments:  NA Public notice issued 9 October 2009 for 30-day comment period.

(1) The public also provided comments at  public hearing,  public meeting, and/or .

(2) Commenters and issues raised:

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Name & Date	Issue
<p>U.S. Environmental Protection Agency (EPA) 29 October 2009 (letter) EPA (continued)</p>	<p>The EPA requested information on measures that have been taken to avoid and minimize on-site wetland impacts. The EPA also requested a mitigation plan in conformance with 33 CFR 332 once sufficient avoidance and minimization of wetland impacts has been provided, and Uniform Mitigation Assessment Method (UMAM) scores for the proposed impact and mitigation sites.</p>
<p>U.S. Fish and Wildlife Service (FWS) 19 January 2010 (e-mail)</p>	<p>The FWS requested information regarding eastern indigo snake conservation measures proposed by the applicants. The FWS recommended that an indigo snake survey of the property utilizing a dog trained to detect indigo snakes would be one possible conservation measure.</p>
<p>State Historic Preservation Officer (SHPO) 5 November 2009 (letter)</p>	<p>The SHPO indicated that the Scripps-Briger DRI property was surveyed in 2008. The results of this survey indicated that one archaeological site, the Briger House ruins (8PB13963), may be of regional significance and eligible for listing in the National Register of Historic Places. The SHPO requested that the applicant submit documentation in the form of a preservation/ conservation easement and/or site development plan for the established preservation area for site 8PB13963.</p>
<p>National Marine Fisheries Service (NMFS) 13 October 2009 (letter)</p>	<p>The NMFS Habitat Conservation Division indicated that the proposed project would not occur within the vicinity of Essential Fish Habitat.</p>
<p>Tetra Tech, EC Inc. 6 November 2009 (letter)</p>	<p>Concerned that appropriate avoidance/minimization had not been demonstrated and the mitigation initially proposed would not comply with 33 CFR 332.</p>
<p>Panagioti Tsoolkas (Palm Beach County (PBC) Environmental Coalition) 2 November 2010, 5 November 2010, and 26 April 2011 (e-mails)</p>	<p>Provided information on endangered species at the site, questioned SFWMD utilization of basins in their cumulative effects analysis, requested a public hearing, and expressed concerns regarding endangered species impacts and impacts on regional waterways.</p>
<p>Rachel Kijewski (affiliated with the PBC Environmental Coalition) 16 November 2010 and 21 April 2011 (e-mails), 16 May 2011 (fax)</p>	<p>Requested a public hearing, provided information regarding the insufficiency of the FWS Biological Opinion (BO), requested that an Environmental Impact Statement be completed for the project. Provided petition with approximately 300 signatures of individuals opposed to development on the parcel.</p>

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Seminole Tribe of Florida (STOF) 3 January 2011 (letter)	The STOF had no objection to the project and recommended that the northeast portion of site 8PB16953 be preserved.
Bobette Wolesensky (affiliated with Greenpeace) 17 May 2011 and 4 June 2011 (e-mails)	Requested that the Corps conduct a public hearing, requested that an Environmental Impact Statement be completed for the project and expressed concerns regarding climate change, endangered species impacts, and impacts on regional waterways.
Gina Brockway 3 June 2011 (e-mail)	Requested that the Corps conduct a public hearing, requested that an Environmental Impact Statement be completed for the project and expressed concerns regarding unwanted congestion, the loss of natural lands, climate change, and endangered species impacts.
Cara Jennings 3 June 2011 (e-mail)	Requested that the Corps conduct a public hearing, requested that an Environmental Impact Statement be completed for the project and expressed concerns regarding climate change and endangered species impacts.
Approximately 32 private citizens (form e-mails, June 2011)	Requested that the Corps conduct a public hearing, requested that an Environmental Impact Statement be completed for the project and expressed concerns regarding climate change and endangered species impacts.

(3) Site  was/ was not visited by the Corps to obtain information in addition to delineating jurisdiction. Site visit conducted with FWS on 12 January 2010. The Corps confirmed that the wetland delineation and M-WRAP/UMAM scores were accurate.

(4) Issues identified by the Corps: By letter dated 17 November 2009, the Corps issued a request for additional information (RAI) regarding avoidance and minimization of on-site wetland impacts, the alternative sites analysis, mitigation plans, secondary and cumulative impacts, UMAM scores, wood stork prey base analysis, the historic properties preservation plan, and the project drawings. The applicant provided a response by letter dated 11 June 2010. The response was incomplete, and the Corps issued another RAI via e-mail dated 25 August 2010. The applicant responded to the 25 August 2010 RAI via letter dated 30 November 2010.

(5) Issues/comments forwarded to the applicant:  NA/ Yes.

(6) Applicant replied/provided views.  NA/ Yes.

(7) The following comments are not discussed further in this document as they are outside

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the Corps purview.  NA/ Yes. The comments regarding the SFWMD utilization of basins in their cumulative effects analysis was not considered by the Corps since the Corps does not have any control over this SFWMD review process.

## 5. Alternatives Analysis

a. Basic and Overall Project Purpose and Need (as stated by applicant and independent definition by Corps):

Same as in Paragraph 1.

Revised:

b. Water Dependency Determination:

Same as in Paragraph 1.

Revised:

c. Applicant preferred alternative site and site configuration:

Same as Project Description in Paragraph 1.

Revised: The applicant's preferred alternative site is the same as the project description in Paragraph 2.

Subsequent to the issuance of the public notice, the applicant made efforts to reduce impacts to existing wetlands while maintaining sufficient acreage and configuration of developable land to support the proposed land uses. However, many of the on-site wetlands have been so hydrologically impacted that complete restoration and vertical relocation would be required for them to be sustainable in the long-term. Although restoration of wetlands on the site was considered as an option, the absence of detailed, long-term hydrological studies for this site or region does not allow for reasonable assurance that any proposed wetland restoration or enhancement would be sustainable in the long-term for the majority of the on-site wetlands. Therefore, the Corps determined that on-site wetland restoration or enhancement for the majority of the wetlands would not be sustainable in the long-term resulting in ongoing indirect impacts to these wetlands over time. Therefore emphasis was placed on on-site preservation and enhancement of only the most viable and sustainable wetland system on the site (wetland A) with the remaining compensatory mitigation requirement provided offsite for all direct impacts (potential indirect impacts were reviewed as direct impacts with a complete loss of wetland functional value). Wetland A was found to support a dominance of native wetland plant species and still exhibits hydrologic characteristics of a functional wetland. The hydrologic condition in

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wetland A is likely attributed to the wetland being hydrologically connected to the adjacent I-95 surface water management system and receiving storm water overflows during heavy storm events. The project was specifically designed to reduce impacts to this higher quality wetland located in the southwestern corner of the eastern parcel. A total of 7.50 acres of wetland A and 1.72 acres of transitional wetland buffer are proposed to be enhanced and preserved. Impacts are proposed to 75.71 acres of wetlands and 2.76 acres of surface waters. The majority of these wetlands are currently low to moderate quality and exhibit signs of severely altered hydrological conditions and a dominance of exotic species. The proposed project site is located adjacent to other residential development and is bisected by Interstate 95. When impacts are proposed in aquatic resources of limited functional value, flexibility is afforded in the 404(b)(1) Guidelines and the stringency of the alternative review for the project may be adjusted. In the case of this project, the alternative of avoiding impacts to on-site wetlands (except wetland A) would have adverse environmental consequences resulting from future indirect impacts to onsite wetlands due to ongoing and future hydrologic impacts from existing and proposed development, stormwater management systems, and aquifer withdrawals. It is environmentally preferable to allow these hydrologically degraded wetlands to be assessed as a direct impact with the loss of the current wetland functional value completely offset with ecologically sustainable offsite wetland mitigation in accordance with 33 CFR 332.

d. Criteria. The applicant's preferred alternative site was selected because it ranked highest using the criteria listed below:

Issue	Measurement and/or constraint
Wetlands/General Environmental Concerns	Area and quality of wetlands impacted. Impacts to the aquatic environment and undeveloped upland habitat.
Buildable Area	Minimum requirement of 500 acres of gross buildable area to accommodate the research/development use.
Location	Location must be within urban service boundary in close proximity to established roads, highways and other infrastructure. Surrounding land uses must be appropriate. Site must meet local zoning and land development requirements. Minimize distance from existing Phase I of TSRI in Jupiter.
Development Costs	Total cost to develop site must be practicable.

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e. Off-site locations and configuration(s) for each.

Off-site locations and configurations	
Description	Comparison to criteria
Parcel 19	Parcel 19 is a 796-acre site located west of I-95 and the Florida Turnpike, and on the north and south sides of Indiantown Road in the Town of Jupiter. There are 313 acres north of Indiantown road and 483 acres south of Indiantown Road. The parcels, which are now partially developed with a residential and golf course community, were at one time considered a viable alternative. The entire parcel south of Indiantown Road and a significant area of the north parcel has been developed by Toll Brothers as a Residential Golf Course Community. The North Section is approved for a hotel and an additional golf course. The buildable area now available at Parcel 19 is insufficient to meet the project purpose.
Palm Beach Park of Commerce	The Palm Beach Park of Commerce site is a 1,243-acre site located on the north side of Beeline Highway and east of the intersection of Seminole Pratt Whitney Road. The Palm Beach Park of Commerce site is zoned as PIPD (Planned Industrial Park District) and is approved for the development of a variety of commercial and industrial facilities. A majority of the site contains existing commercial development. This site was considered as an alternative, although the applicant had significant concerns. The site is in an industrial setting and would result in a much different atmosphere than what is envisioned for the Scripps Research Park. Changes in zoning would need to occur to allow any residential development on the site. Much of the site is currently developed, with the majority of the existing development located in the northern and central portions of the site. The property available for development is located mainly in the southern portion of the site. The available property includes 350 acres zoned for light industrial, 100 acres zone for general industrial, and 100 acres zone for commercial. Although the site contains enough available developable property to construct the biotechnology research park, the amount of property suitable for the site-specific development is limited. Areas where residential development could occur are limited because the southern

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Palm Beach Park of Commerce (continued)	portion of the site falls within the airport's prohibited land use buffer where residential use is discouraged. The railroad line which borders the southern portion of the site would cause complications for research and development uses due to vibrations and noise. Research equipment such as electron microscopes and other imaging equipment cannot tolerate even minimal vibration. Therefore, constructing in the southern portion of the site is not feasible, and some of the existing developments in the northern portion of the site would need to be relocated. Although the costs of the land were reasonable, the cost of tenant relocation and aesthetics may be very costly. Additionally, the vibration and noise from the railroad, and the limited areas of development cause this site to be unacceptable to the applicant.
Mecca Farms	Mecca Farms is a 1,900-acre site located near the northeast corner of Seminole Pratt Whitney Road and 100 <sup>th</sup> Lane North. This site was an active orange grove, and because of the minimal environmental concerns on the site, and the large areas available for expansion it was initially chosen as the most viable site for the Scripps project. However, after a challenge to the Corps permit, a U.S. District Judge ruled in November 2005 that the permit failed to consider the cumulative and indirect effects of growth and development in the area surrounding the Mecca Farms site resulting from locating the Scripps development at this alternative site. In 2005, the Corps found an insignificant difference in the impacts to the agricultural ditches at Mecca Farms and the low-quality wetlands found on the proposed project site because of the highly degraded condition of the wetlands on the proposed project site. Additionally, in 2005 the Corps determined that high land development costs on the proposed project site resulted in the site not being a practicable alternative. However, much of the infrastructure required for the project does not currently exist adjacent to the Mecca Farms site and the adjacent lands surrounding this site are not heavily developed. Therefore the secondary and cumulative impacts to wetlands and less developed upland habitat are expected to be greater for this alternative than the impacts likely to result from the applicant's preferred alternative.

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Mecca Farms (continued)	Construction of the proposed project at the Mecca Farms site would not be the least environmentally damaging alternative. The applicant has determined that current development costs on the proposed project site are now practicable.
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f.  NA/Site selected for further analysis and why:

g. On-site configurations:

Description	Comparison to criteria
Onsite alternative #1 (applicant's original project description)	The applicant's original proposal was to fill 60.29 acres of wetlands and avoid impacting the remaining on-site wetlands. There would be less direct wetland impacts, however the remaining wetlands avoided would likely not remain wetland habitat in the long term due to pre-existing hydrologic impacts. Buildable area, location and development costs are appropriate for this alternative. This alternative would allow for unmitigated future indirect impacts to onsite wetlands due to ongoing hydrologic impacts from existing and proposed stormwater management systems and aquifer withdrawals.
Onsite alternative #2 (identified by the Treasure Coast Regional Planning Council in the September 2009 "Development of Regional Impact Assessment Report")	This alternative included development on the northern two-thirds of the parcel east of I-95 with no development proposed west of I-95. This western portion would be a preserve and passive recreation area. The remaining southern one-third of the parcel east of I-95 would be reserved for future development. This alternative has insufficient buildable area. The location and development costs are appropriate. Wetland impacts would be reduced by approximately 32 acres; however these avoided wetlands would likely not be sustainable in the long-term. Upland impacts would be substantially reduced.
Onsite alternative #3 (current project description)	Current proposal is to fill 75.71 acres of wetlands. The direct wetland impacts are increased over onsite alternative #1 and #2. The railroad is approximately 1.4 miles from the site and was not considered a negative factor for this alternative. Buildable area, location and development costs are appropriate for this alternative.

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h. Other alternatives not requiring a permit, including No Action:

Description	Comparison to criteria
No Action (construction in uplands only)	Would not meet the project purpose. The project would not be built due to the interspersed nature and extent of the onsite wetlands; therefore there would be no development costs or environmental impacts associated with this alternative. The location would not be appropriate since there would be insufficient buildable area in uplands.

i. Alternatives not practicable or reasonable: The no action alternative would not allow reasonable use/development of the property since the interspersed nature and extent of the onsite wetlands make upland-only development not practicable. The Parcel 19, Palm Beach Park of Commerce, Mecca Farms alternative sites are not practicable and would not meet the project purpose as described in paragraph 5 (e). Onsite alternative #1 is practicable and would meet the project purpose; however this alternative is not the least environmentally damaging alternative. The majority of the wetlands on the site have been adversely impacted as a result of altered surface and groundwater hydrology associated with regional water management practices. Regional water management has reduced the depth and duration of hydrologic inundation and saturation on the site. Because the site is completely surrounded by developments that are controlling water levels at elevations lower than most of the existing wetlands on the site, long-term sustainability of most wetlands on the Briger site is not likely. It was determined that one wetland (wetland A) has not been as adversely impacted as other wetlands on the site. In addition to the on-site preservation of wetland A, alternative #3 would result in off-site mitigation that provides much greater ecological value than what would be provided by preserving and attempting to enhance degraded wetlands on the project site. Onsite alternative #2 would result in increased upland and wetland habitat preservation; however this alternative would not meet the project purpose as the proposed development would not be economically viable with the substantial reduction in developable area. Additionally, according to the applicant, alternative #2 would result in unacceptably high development density (that would be out of compliance with City of Palm Beach Gardens requirements) and would also result in insufficient area for the required surface water management system.

j. Least environmentally damaging practicable alternative: The alternative #3 is the least environmentally damaging practicable alternative considering existing technology, cost, and logistics. Buildable area, location and development costs are appropriate for this alternative. The off-site mitigation would provide much greater ecological value than what would be provided by preserving and attempting to enhance degraded wetlands on the project site; therefore this alternative would be less environmentally damaging than any other practicable alternatives. The uplands in the project area are currently impacted by surrounding development and roadways, the equestrian utilization of the site, and invasive exotic vegetation. These conditions adversely affect wildlife utilization of both uplands and wetlands. Additionally, much

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of the infrastructure required for the project already exists along the Donald Ross Corridor adjacent to the project site. The adjacent lands surrounding the proposed project site are already developed therefore secondary and cumulative impacts are expected to be negligible.

6. Evaluation of the 404(b)(1) Guidelines. (NA)

a. Factual determinations.

Physical Substrate. <input checked="" type="checkbox"/> See Existing Conditions, paragraph 1 <input type="checkbox"/> [ ]
Water circulation, fluctuation, and salinity. <input checked="" type="checkbox"/> Addressed in the Water Quality Certification (WQC). <input type="checkbox"/> [ ]
Suspended particulate/turbidity. <input checked="" type="checkbox"/> Turbidity/ erosion controls in WQC. <input type="checkbox"/> [ ]
Contaminant availability. <input checked="" type="checkbox"/> General Condition requires clean fill. <input type="checkbox"/> [ ]
Aquatic ecosystem and organism. <input checked="" type="checkbox"/> Wetland/wildlife evaluations, paragraphs 5, 6, 7 & 8. <input type="checkbox"/> [ ]
Proposed disposal site. <input checked="" type="checkbox"/> Public interest, paragraph 7. <input type="checkbox"/>
Cumulative effects on the aquatic ecosystem. <input checked="" type="checkbox"/> See Paragraph 7.e. <input type="checkbox"/> [ ]
Secondary effects on the aquatic ecosystem. <input checked="" type="checkbox"/> See Paragraph 7.e.

b. Restrictions on discharges (230.10).

(1) It has been demonstrated in paragraph 5 that there are no practicable nor less damaging alternatives which could satisfy the project's basic purpose. The activity is located in a special aquatic site (wetlands). The activity does not need to be located in a special aquatic site to fulfill its basic purpose.

(2) The proposed activity does not violate applicable State water quality standards or Section 307 prohibitions or effluent standards. The proposed activity does not jeopardize the continued existence of federally listed threatened or endangered species or affect their critical

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habitat. The proposed activity does not violate the requirements of a federally designate marine sanctuary.

(3) The activity will not cause or contribute to significant degradation of waters of the United States, including adverse effects on human health; life stages of aquatic organisms' ecosystem diversity, productivity and stability; and recreation, aesthetic, and economic values.

(4) Appropriate and practicable steps have been taken to minimize potential adverse impacts of the discharge on the aquatic ecosystem (see Section 8 for description of mitigative actions).

7. Public Interest Review: All public interest factors have been reviewed as summarized here. Both cumulative and secondary impacts on the public interest were considered. Public interest factors that have had additional information relevant to the decision are discussed in number 7. Those boxes not checked were not relevant or not applicable.

				+ Beneficial effect
				0 Negligible effect
				- Adverse effect
				M Neutral as result of mitigative action
+	0	-	M	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Conservation.
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Economics.
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Aesthetics.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	General environmental concerns.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Wetlands.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Historic properties.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Fish and wildlife values
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Flood hazards.
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Floodplain values.
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Land use.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Navigation.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Shore erosion and accretion.
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Recreation.
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Water supply and conservation.
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Water quality.
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Energy needs.
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Safety.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Food and fiber production.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Mineral needs.
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Considerations of property ownership.
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Needs and welfare of the people.

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8. Effects, policies and other laws.

a. (  NA) Public Interest Factors.

Factor	Discussion
Conservation	Given the impacted nature of the site and the surrounding land uses, the impacts to upland and wetland habitat would not result in more than negligible effects on conservation in the watershed. The impacts to wetlands would be completely offset through appropriate compensatory mitigation utilizing a watershed approach. Wetland A (7.50 acres) and 1.72 acres of wetland buffer are proposed to be enhanced and preserved onsite. The project would include 83.26 acres of upland enhancement and preservation. Land use designations and upland preservation requirements are addressed by local regulatory agencies.
Economics	The project would create jobs for all aspects of construction. The overall development of the site is expected to provide a considerable economic benefit to the area. The Scripps research park is estimated to create approximately 9,478 jobs. An increase in available jobs, greater educational opportunities, and more research facilities would likely encourage economic growth in the area. Economic growth would result in an increased local tax base.
Aesthetics	The project site would transition from a largely undeveloped upland/wetland mosaic to a commercial/residential development as approved in the DRI development order. The perception of this alteration will vary from person to person. Some would prefer to have a natural view of the area without interference from man-made structures. Others may appreciate the visual character of the developed property which will include preserved uplands and landscaping. The site currently has limited public access therefore the change in the aesthetic character of the site is not expected to adversely affect the general public. The proposed project would be consistent with surrounding land uses.

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<p>General environmental concerns</p>	<p>The project would impact wetland and upland habitat. The wetland impacts would be completely offset through appropriate compensatory mitigation utilizing a watershed approach. The project would include 83.26 acres of upland enhancement and preservation. The project site is currently impacted by regional water use, development and roadways. The environmental impacts of developing this site are minimized by existing and on-going impacts at the site. The loss of vegetation at this site would not result in more than a negligible effect on climate stability. Water quality certification has been issued by the SFWMD; therefore adverse water quality impacts are not expected.</p>
<p>Wetlands</p>	<p>75.71 acres of wetlands and 2.76 acres of ditches would be filled to construct the project. The wetland impacts would be completely offset through appropriate compensatory mitigation utilizing a watershed approach. Onsite, wetland A (7.50 acres) and 1.72 acres of wetland buffer would be enhanced and preserved since it currently has a hydrologic regime that is expected to be sustainable in the long-term.</p>
<p>Historic properties</p>	<p>The project will not have any effect on any sites listed, or eligible for listing, in the National Register of Historic Places, or otherwise of national, state, or local significance. The Briger archaeological site (8PB13953) may be eligible for listing in the National Register of Historic Places and of regional significance. SHPO determined that the measures taken to preserve this site would adequately protect and preserve the site and no further investigations would be required. The DRI approval for the project requires the preservation of 8PB13953. The 0.71-acre site will be protected by a 25-foot buffer surrounding the site. A legal description of the site will be recorded at platting. The site and the associated buffer are included as part of the Upland Preserve Area designated for the DRI. The City of Palm Beach Gardens requires that all Upland Preserve areas be fenced off during construction. The DA permit would be conditioned to require the preservation of 8PB13953. No construction would be authorized in this preserved area.</p>
<p>Fish and wildlife values</p>	<p>The project would convert undeveloped upland and wetland habitat into commercial and residential development, substantially reducing the values provided to wildlife onsite. Wildlife would be displaced during construction activities. Fish habitat is minimal on-site due</p>

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Fish and wildlife values (continued)	to ongoing hydrologic impacts and the overall quality of the wetlands is low due to the surrounding development and hydrologic impacts. The fish and wildlife values lost via wetland impacts would be fully offset through compensatory wetland mitigation. The project would include 83.26 acres of upland enhancement and preservation. Upland habitat impacts are addressed by local regulatory agencies.
Flood hazards and Floodplain values	The site is located in the Federal Emergency Management Agency flood zone designation B (areas between the limits of the 100-year and 500-year flood; or certain areas subject to 100-year flood with average depths less than 1 foot or where the contributing drainage area is less than 1 square mile; or areas protected by levees from the 100-year flood). The site plan has been approved by the South Florida Water Management District to have an acceptable level of flood control and surface water management storage capacity. Issuance of a SFWMD permit ensures that the project has adequate water storage to prevent flooding. The project is not expected to adversely affect floodplain values or result in a flood hazard.
Land use	The Briger site is designated as Mixed Use by the City of Palm Beach Gardens Future Land Use Plan. The Palm Beach Gardens City Council approved the DRI on April 1, 2010, and adopted a master plan and design guidelines which will govern future development within the project. The master plan creates five districts: Scripps Campus District, Biotech District, Town Center District, Neighborhood District and Neighborhood Commercial District. Each district has its own specific regulations. For example, the minimum development size in the Biotech District is one acre. Development areas in the Town Center and Neighborhood Districts are determined by the prescribed network of streets outlined in the guidelines. Future development within these districts will have to comply with the design guidelines and the DRI approval. The utilization of the property is expected to benefit the property owners by providing a return on investment, and benefit the public through job creation and an increase in the local tax base.

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Recreation	Current public recreational use of the site is limited. The proposed project would provide a variety of recreational and open space areas that will total a minimum of 20 percent of the project area, or approximately 136 acres, as required by the City of Palm Beach Gardens development approval. The parks and open space will dedicated for the recreational use of the residents and tenants of the development.
Water supply and conservation	The proposed surface water management system will consist of a network of inlets, culverts, control structures, wet detention ponds, littoral shelves, wetlands, and dry pretreatment areas. Water quality treatment would be provided within wet detention ponds. Additional water quality treatment would be provided within dry pre-treatment areas for commercial and industrial development. The proposed surface water management system will be designed to provide stormwater attenuation to control the discharge from the development site in a way that will not adversely impact the Northern Palm Beach County Improvement District Unit of Development 2. Potable water will be supplied to the site by the Seacoast Utility Authority (SUA). The applicant has projected that the total water demand of the project will be 2.23 million gallons per day (MGD) at build out. The water demand is broken down between potable water demand of 1.72 MGD and non-potable water demand of 0.51 MGD. All of the internal water supply system will be owned and operated by SUA. Wastewater generated by the project at build out is estimated to be 1.67 MGD. Seacoast Utility Authority will provide off-site wastewater treatment. Septic tanks are not proposed for the project. The applicant notes the existing off-site transmission facilities servicing the eastern portion of the development are not adequate for the project's anticipated sewage flows. This situation will be rectified by establishing a 16" force main connection from the project site south to the existing 30" force main along the 3C Canal. The recommended Development Order includes provisions requiring that prior to approval of a development parcel; adequate capacity for wastewater treatment is in place; reuse water infrastructure is available to serve the project; and the necessary wastewater system extensions are in place. Future water supply and

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Water supply and conservation (continued)	wastewater improvements are not expected to result in more than minimal impacts to the aquatic environment. Corps permits would be required for jurisdictional activities in jurisdictional waters.
Water quality	The project is designed to meet or exceed state water quality standards. Issuance of the SFWMD permit ensures that the project has water quality certification. Secondary effects of water quality would be temporary impacts during the construction phase. Best management practices would prevent any unacceptable impacts from occurring.
Energy needs	The project would increase the demand for electricity. Current electricity production infrastructure is expected to be sufficient to meet the increased demand.
Safety	The project is not expected to impact public safety. All practicable measures will be taken during construction to ensure public safety.
Considerations of property ownership	The project is not expected to adversely impact adjacent property owners. The Corps did not receive any adverse comments from adjacent property owners. The current owners of the project site would benefit from the proposed utilization of the site.
Needs and welfare of the people	The project would provide needed jobs and contribute to economic growth in Palm Beach County. The project is expected to attract business investment, help meet the growing demand for conveniently located homes in walkable neighborhoods, and reduce the economic, social, and environmental impacts associated with long commutes in automobiles by locating the commercial aspects of the project adjacent to the residential communities. The loss of low to moderate quality wetland habitat would be offset with appropriate compensatory mitigation. The project would result in the loss of approximately 500 acres of undeveloped upland habitat that is currently bisected by Interstate 95 and surrounded by roads and development. The project would include 83.26 acres of upland enhancement and preservation. Upland preservation requirements are addressed by local regulatory agencies. The location of the site in an area adjacent to other development and existing infrastructure would allow for reasonable development while minimizing suburban sprawl and the loss of large areas of more regionally important and interconnected natural habitat that are not currently heavily

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Needs and welfare of the people (continued)	impacted by roadways and development as the proposed site is.
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b. Endangered Species Act:  NA/The proposed project:

(1) Will not affect these threatened or endangered species: The project would have no effect on the endangered Everglade snail kite (*Rostrahamus sociabilis plumbeus*) because the site does not contain suitable habitat for this species and this species has not been observed at the site.

(2) May affect, but is not likely to adversely affect:  
By letter dated 9 October 2009, the Corps determined the project may affect the endangered wood stork (*Mycteria americana*). Wood storks have been observed foraging in wetlands which are located in the project's footprint. The original mitigation plan provided did not to provide suitable foraging habitat (SFH) compensation in accordance with the CWA section 404(b)(1) guidelines as the mitigation plan was incomplete and a wood stork foraging prey base analysis had not been completed. Use of the Wood Stork Key resulted in the following determination: A->B->C->D->F "may affect". Subsequent to this effect determination, the applicant provided a complete mitigation plan in accordance with 33 CFR 332 and provided a wood stork foraging prey base analysis indicating that the mitigation proposed would fully offset the loss of wood stork prey resulting from project impacts. Upon receipt of this information on 1 December 2010, the Corps revised its effect determination for the wood stork to "may affect, not likely to adversely affect".

(3) May affect: By letter dated 9 October 2009, the Corps determined the project may affect the threatened eastern indigo snake (*Drymarchon corais couperi*) since the project would impact a large area of habitat suitable for the eastern indigo snake and the site is known to have gopher tortoise burrows which are commonly utilized as refugia by indigo snakes.

(4)  Will/ Will not adversely modify designated critical habitat for any listed species.

(5)  Is/ Is not likely to jeopardize the continued existence of any listed species.

(6) The FWS  concurred/ provided a Biological Opinion (BO) dated 23 March 2011. The FWS BO provided concurrence with the Corps' determination of "may affect, not likely to adversely affect" for the wood stork based on the mitigation proposed that would offset the impacts to suitable foraging habitat. The FWS determined that the project would result in the take of two eastern indigo snakes due to injury or mortality incidental to project construction, the take of the productivity of up to three eastern indigo snake nests may also be lost through direct mortality incidental to project construction, and the incidental take of all eastern indigo snakes (estimated by FWS to be six snakes) at the project site through harassment for the life of the project. In the BO, the FWS determined this level of take is not likely to jeopardize the

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continued existence of the eastern indigo snake. The BO included the following reasonable and prudent measure to minimize the effects of incidental take on the eastern indigo snake: the applicant will follow the Standard Protection Measures for the Eastern Indigo Snake (Service 2004). The BO also included three non-discretionary terms and conditions: 1) Upon locating a dead, injured, or sick federally listed species, initial notification must be made to referenced project biologist and the nearest Service Law Enforcement Office (U.S. Fish and Wildlife Service; 1339 20th Street, Vero Beach, Florida; 772-562-3909). Secondary notification should be made to the FWC, South Region; 8535 Northlake Boulevard, West Palm Beach, Florida; 33412-3303; 561-625-5122; 1-888-404-3922; 2) Care shall be taken in handling sick or injured specimens to ensure effective treatment and care or in the handling of dead specimens to preserve biological material in the best possible state for later analysis as to the cause of death. Dead specimens should be placed on ice and frozen as soon as possible. In conjunction with the care of sick or injured specimens or preservation of biological materials from a dead animal, the finder has the responsibility to carry out instructions provided by Law Enforcement to ensure that evidence intrinsic to the specimen is not unnecessarily disturbed; 3) In addition to reporting requirements for dead or injured snakes in conditions 1 and 2, a report shall be submitted post construction which includes all indigo snake sightings, injuries, and mortalities during the proposed action to the Service biologist. This report shall contain the location (latitude and longitude), dates, times, prevailing environmental conditions, and the circumstances surrounding all sightings and the disposition of all animals found. A site map with observation locations shall also be included in this report. If no snakes are encountered throughout construction, a report shall be submitted indicating that fact. Additionally, as a conservation measure, the FWS asked the applicant to allow for a site visit by Project Oriane with their eastern indigo snake detection dog to do a test survey. The applicant voluntarily agreed to fund this portion of the study to aid in future methods to locate eastern indigo snakes. Compliance with the reasonable and prudent measure and three terms and conditions of the BO will be made a condition of the DA permit.

c. Essential Fish Habitat (EFH). Adverse impacts to Essential Fish Habitat will/will not result from the proposed project. The project site does not contain any EFH.

d. Historic Properties. The proposed project will/will not have any effect on any sites listed, or eligible for listing in the National Register of Historic Places, or otherwise of national, state, or local significance. There are two sites that were identified by the Archaeological and Historical Conservancy, Inc. cultural resource survey: 1) The remains of a historic structure (the "Briger house"), which is identified as 8PB13962 and 2) a previously unrecorded archaeological site (a prehistoric midden and historic artifact scatter), which is identified as 8PB13953. The Briger house (8PB13962) is not eligible for listing on the National Register for Historic Places based on a SHPO determination letter dated 17 December 2008. The Briger house is not eligible due its lack of architectural or historical significance and its ruinous condition. Based on the letter from SHPO dated 5 November 2009, the Briger archaeological site (8PB13953) may be eligible for listing in the National Register of Historic Places and of regional significance. A SHPO letter sent to the applicant's consultant, dated 29 January 2009, provided the

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determination that the measures taken to preserve this site would adequately protect and preserve the site and no further investigations would be required. The DRI approval for the project requires the preservation of 8PB13953. The DA permit would be conditioned to require the preservation of 8PB13953.

e. Cumulative & Secondary Impacts. The geographic area for this assessment is the Florida Southeast Coast watershed. The Southeast Coast Watershed includes areas from north of the Jupiter inlet including the Lake Worth Lagoon in Palm Beach County to the Key Biscayne in Dade County. The SE Coast Watershed includes the Intracoastal Waterway (ICW), a narrow strip of coastal land on the west of the ICW, and the series of barrier islands that extend east of the ICW.

(1) Baseline and Context. Approximately three percent of the watershed area is wetland habitat. There is an extensive network of canals within the watershed. Most of the watershed is developed with single and multi-family residential homes, marinas, commercial, and conservation uses. Privately-owned undeveloped areas are rare, and the undeveloped parcels are predominately designated conservation or recreational land use. Single-family and multi-family residential development dominates the coast of the Intracoastal Waterway and along the coastal beaches. High density urban development continues throughout the inland portions of the watershed. The coastal wetlands contain mangroves; however, much of the shoreline is hardened with bulkheads, seawalls, or riprap. The projection is that authorizations will continue at the current rate because economic activity and development will continue at approximately the same rate. Natural resource issues of particular concern from Federal & non-Federal activities are wetland impacts, seagrass and hardbottom impacts, and endangered species impacts. The proposed project is very large compared to other activities in the watershed; however there are limited areas remaining for future large-scale development. Developments similar to the proposal have occurred in the last decade. Future conditions are expected to be similar to current conditions. Resulting natural resource changes and stresses include water pollution, the loss of productive upland and wetland habitat, and the fragmentation of undeveloped natural areas.

(2) Reasonably foreseeable future impacts: The project is expected to create approximately 9,478 new full-time jobs at full build-out resulting in increased demand for housing. The economic study conducted for the DRI found that there were 2,744 for sale units in Palm Beach County and 920 for sale units in Martin County. In addition, 813 of 7,404 rental units located within a 10 mile/20 minute drive time distance from the DRI were available for rent. The approved DRI for this project includes an additional 2,700 units, which are a mix of single family, multi-family and rental apartments. Therefore the available housing supply at the time of DRI approval was as follows: 2,744 units in Palm Beach County, 920 units in Martin County, 813 units for rent within 10 mile/20 minute drive distance, and 2,700 proposed on-site for this project, resulting in a total availability of 7,177 units. The project is expected to generate a total of 9,478 jobs, of which 8,652 will be full time. The 2002 Census found that approximately 50% of households in Palm Beach County were multi-worker households. Based on this assumption,

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the creation of 9,478 jobs will require 7,109 units [calculation: half of 9,478 jobs will require one residential unit, (4,739 units) and the remaining jobs will require one house per two jobs (2,370 units).  $4,739 + 2,370 = 7,109$  units]. As such, the project does not create a demand for housing in excess of what is proposed onsite and currently available. Additionally, due to the recent economic downturn, more for-sale and rental units are available now when compared with the units available when the study was conducted.

Additional development on private lands, such as Vavrus Ranch is a potential adverse cumulative impact resulting from this project. The Loxahatchee River Basin Wetland Planning Project for Palm Beach County dated 1 July 1999, states that the Vavrus Ranch is one of the largest areas containing wetlands that have not been protected. Palm Beach County has identified portions of the Vavrus property as areas desirable to purchase for conservation and recreational uses. The Corps anticipates additional development resulting in part from this project could impact wetlands and undeveloped upland habitat (including Vavrus Ranch); however substantial additional offsite development is not expected as a result of any potential unmet housing demand created by this project since there is currently an excess supply of residential homes on the market in the surrounding area. Given the existing development pressure in northern Palm Beach County, the timing and number of future development applications would likely be very similar with or without the proposed project. Any future plans for development requiring DA authorization will be evaluated and processed by the Corps under a separate application once it is submitted.

According to the Treasure Coast Regional Planning Council's Final Assessment Report, the project is expected to generate more than 7,000 gross trips at build out of the development during the p.m. peak hour. The level of service on several roadways is expected to be negatively impacted. As a result roadway projects are expected to result in response to the proposed project including intersection improvements at the Donald Ross Road/I-95 intersections, widening of Donald Ross Road from I-95 to Heights Boulevard, widening of Hood Road from Parkside Drive to Central Boulevard, intersection improvements at Central Boulevard with both Hood Road and PGA Boulevard, improvements at Turnpike ramps and/or the intersections with either Indiantown Road or PGA Boulevard, intersection improvements at Indiantown Road and I-95, and potentially the construction of a Park and Ride Lot. The Corps anticipates additional roadway construction could impact wetlands and undeveloped upland habitat; however the majority of the proposed construction would likely be proposed in developed areas adjacent to existing roadways and would result in minimal environmental impacts.

According to the Palm Beach County Solid Waste Authority, the project is expected to generate the following amounts of waste: 4,314 tons/year and 8,760 gallons/year during Phase 1; 1,799 tons/year and 11,680 gallons/year during Phase 2; 1,547 tons/year and 11,680 gallons/year during Phase 3; and 4,281 tons/year and 43,800 gallons/year during Phase 4. This amounts to domestic solid waste totaling approximately 11,941 tons/year and 75,920 gallons/year at project build-out. Palm Beach County Solid Waste Authority has indicated that it has capacity to provide the necessary services for the proposed development. Calculations by Palm Beach

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County Solid Waste indicate that sufficient capacity exists or will exist to support this project; however, landfill capacity is projected to end in 2021. The Corps does not anticipate any measurable secondary or cumulative effects on the aquatic environment related to the solid waste generated as a result of the project.

Based on the student generation rate provided by the Palm Beach County School District, the project is expected to generate a total of roughly 582 new students (2009 through 2028) as follows: 284 elementary school students, 130 middle school students, 168 high school students. Based on the School District's analysis, the elementary and high school students anticipated to be generated from the subject project can likely be accommodated within existing schools. However, the middle school students anticipated to be generated from the subject project will cause the Watson B. Duncan Middle School to exceed capacity. To accommodate these students at that middle school, capacity enhancements will be required (either modular units or permanent capacity expansion). The Corps does not anticipate any measurable secondary or cumulative impacts to the aquatic environment as a result of the school expansion that would likely be required.

The recommended Development Order conditions include a provision that no building take place until such time as the applicant receives written confirmation from each of Palm Beach Gardens Fire Rescue Department, Palm Beach County Fire Rescue and Palm Beach Gardens Police Department that each agency has adequate facilities and personnel to serve the project at the beginning of each phase of development. The Corps does not anticipate any measurable secondary or cumulative impacts to the aquatic environment as a result of additional fire and emergency services infrastructure construction. Additionally, the energy demands of the project are not expected to result in the construction of substantial additional infrastructure. There is an approximately 4.48-acre area on the project site designated for substation expansion. Upgrades to existing transmission lines would likely be required.

(3) Secondary Impacts. The application indicates there will be no industrial uses within the site. However, biotechnological research and development is expected to generate medical and chemical waste. The recommended Development Order conditions include provisions requiring the developer to prepare a Hazardous Waste Management Plan that identifies off-site disposal plans, on-site waste handling, generation and emergency procedures for each generator of hazardous waste. The plan is to be approved by the City of Palm Beach Gardens. The Corps does not anticipate any measurable secondary effects related to the hazardous waste as a result of the project.

The Air Program of the Florida Department of Environmental Protection (FDEP), in conjunction with the Palm Beach County Health Department's Air Section, reviewed the project to determine if air quality concerns for the project had been adequately addressed. The agencies reviewed a carbon monoxide (CO) air quality analysis for Phase 1 of the proposed development. Based on this review, FDEP concluded that the developer has adequately addressed CO air quality

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concerns for the first phase of development. The recommended Development Order conditions include a provision requiring the developer to submit a Carbon Monoxide Air Quality Analysis prior to approval of future phases of development. The recommended Development Order conditions also include provisions requiring soil treatment techniques appropriate for controlling unconfined particulate emissions during land clearing and site preparation. The purpose of this is to minimize dust production and soil erosion during land clearing and to prevent soil particulates from becoming airborne between the time of clearing and construction. The development is to comply with all National Pollutant Discharge Elimination System requirements. Based on the FDEP review of the project, the Corps does not anticipate any measurable secondary impacts to air quality as a result of the project.

Secondary impacts to wetland A resulting from the proposed surrounding development were assessed using UMAM as described in Section 9. No other secondary impacts to wetlands or other waters are expected given the existing surrounding land uses.

(4) Mitigation and Monitoring. The project affects the following key issue(s): wetland impacts and loss of natural habitat. The magnitude of the proposed effect is minor within the watershed considering the location of the project and the degraded nature of the wetland habitat. Compensatory mitigation, including the purchase of mitigation credits at the Loxahatchee Mitigation Bank, the enhancement and preservation of 395 acres of wetlands in the Pine Glades West Advance Mitigation Area, and the enhancement and preservation of wetland A as described in this document will result in the minimization of cumulative impacts on the aquatic environment to an acceptable level.

(5) Cumulative Impact Assessment Conclusions. The project's cumulative impacts on the environment resulting from the incremental impact of this project when added to the past, present, and reasonably foreseeable future actions are minor given the current requirements of federal laws including the Clean Water Act, the Corps regulatory program regulations, and the special conditions of the DA permit. This project's cumulative aquatic habitat impacts would be minor since the applicant will be required to completely offset the functions and values of the impacted wetland habitat with appropriate in-kind mitigation using a watershed approach. Cumulative water quality impacts will be negligible given the permit erosion control conditions, State permitting requirements with respect to water quality certification, and the wetland compensatory mitigation requirements. Cumulative wildlife and fisheries impacts would also be negligible given the location and impacted nature of the project site and the compensatory mitigation proposed for the project impacts. No other measurable cumulative impacts are expected for any other resource.

f. Corps Wetland Policy. The proposed wetland alteration is necessary to realize the project purpose and should result in minimal adverse environmental impacts. The project would result in a no-net loss of wetland functions and values. Therefore the project is in accordance with the Corps wetland policy.

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g. (NA) Water Quality Certification under Section 401 of the Clean Water Act has been issued by the South Florida Water Management District (SFWMD) under permit number 50-00610-S-24, dated 4 May 2010. The permit was challenged by two petitioners and the matter was heard before the Division of Administrative Hearings on 5 October 2010. The Recommended Order (RO) was issued by the Administrative Law Judge on 30 November 2010. The RO recommended that the SFWMD final order grant application number 090427-7 with conditions contained in the SFWMD amended staff report associated with permit number 50-00610-S-24. The SFWMD final order dated 3 January 2011 approved application number 090427-7 with conditions contained in the District's amended staff report.

h. Coastal Zone Management (CZM) consistency/permit: Issuance of a State permit certifies that the project is consistent with the CZM plan.

i. Other authorizations. The City Council of Palm Beach Gardens (Resolution 1, 2010) approved the proposed Development of Regional Impact (DRI) on 1 April 2010.

j. (NA) Significant Issues of Overriding National Importance.

k. (NA) Internal Coordination.

l. Additional Coordination.

(1) The Corps coordinated project review with SHPO following the issuance of the public notice. By e-mail dated 24 August 2010, the Corps requested clarification from SHPO on the archaeological site numbers and the sites eligible for listing in the National Register of Historic Places. By e-mail dated 15 September 2010, SHPO provided an updated determination letter identifying the correct site number for the one site eligible for listing in the National Register of Historic Places (Briger archaeological site - 8PB13953).

(2) The Corps coordinated project review with the EPA following the issuance of the public notice. By e-mail dated 15 April 2011, the Corps provided the EPA with the final wetland impact summary and mitigation plan. By e-mail dated 15 April 2011 the EPA requested additional information on the alternatives analysis and the justification for utilizing credits at the Loxahatchee Mitigation Bank since the proposed impacts are not located within the Federal service area of the bank. The Corps provided the additional information via e-mails dated 15 April 2011 and 18 April 2011. Based on the information provided, the EPA did not provide any additional comments on the project.

(3) Upon receipt of comments from Rachel Kijewski and others regarding the FWS Biological Opinion (BO), the Corps forwarded the comments to FWS to determine if the information provided warranted re-initiation of ESA consultation. By e-mail dated 5 May 2011, the FWS indicated that there would be no need to re-initiate ESA consultation based on the

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information provided. The FWS indicated that no indigo snakes or signs of indigo snakes have been observed on site. The FWS took the conservative approach (based on the results of the dog survey) that an indigo snake could be on site and this was the driving factor for doing a biological opinion for the project. Regarding the wood stork comments, the applicant has proposed to sufficiently replace the forage value that will be lost due to the proposed wetland impacts. The Corps concurred with the FWS response to these comments and determined that re-initiation of ESA consultation would not be required.

9. Compensation and other mitigation actions.

a. Compensatory Mitigation

(1) Is compensatory mitigation required?  yes  no [If “no,” do not complete the rest of this section]

(2) Is the impact in the service area of an approved mitigation bank? The project is within the State service area, but not the Federal service area for the Loxahatchee Mitigation Bank. According to the bank’s approved mitigation banking instrument, “The Loxahatchee Mitigation Bank may be used to compensate for impacts beyond the bank’s service area on a case-by-case basis where the bank is expected to offset specific wetland impacts to herbaceous and forested systems and where it is determined to be practicable and environmentally desirable”. For this project it was determined that for impacts to historically long-hydroperiod wetlands (marsh), use of the Loxahatchee Mitigation Bank would be environmentally preferable to permittee-responsible mitigation either on-site or offsite at Pine Glades West since the Pine Glades West wetlands are predominantly shorter hydroperiod wetlands (marsh/wet prairie mix and hydric pine flatwoods). The use of the Loxahatchee Mitigation Bank would ensure in-kind mitigation at a large and ecologically significant site is provided for the historically long-hydroperiod wetland impacts.

Does the mitigation bank have appropriate number and resource type of credits available?  yes  no

(3) Is the impact in the service area of an approved in-lieu fee program?  yes  no

Does the in-lieu fee program have appropriate number and resource type of credits available?  yes  no

(4) Check the selected compensatory mitigation option(s):

mitigation bank credits

in-lieu fee program credits

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- permittee-responsible mitigation under a watershed approach
- permittee-responsible mitigation, on-site and in-kind
- permittee-responsible mitigation, off-site and out-of-kind

(5) If a selected compensatory mitigation option deviates from the order of the options presented in §332.3(b)(2)-(6), explain why the selected compensatory mitigation option is environmentally preferable. Address the criteria provided in §332.3(a)(1) (i.e., the likelihood for ecological success and sustainability, the location of the compensation site relative to the impact site and their significance within the watershed, and the costs of the compensatory mitigation project): To offset unavoidable impacts to onsite wetlands and ditches, the applicant would be required to enhance and preserve 7.50 acres of wetland A and 1.72 acres of wetland buffer, enhance and preserve 395 acres at the Pine Glades West Advance Mitigation Area (providing 23.39 UMAM functional units to offset impacts to short hydroperiod wetlands including hydric pine flatwoods), and purchase 13.7 herbaceous credits at the Loxahatchee Mitigation Bank to offset impacts to long hydroperiod wetlands. The Pine Glades West Advance Mitigation Area was determined to be a more appropriate and environmentally preferable mitigation option for some of the wetland impacts because of habitat type similarities and because of its proximity to the project site. Approximately 47.76 acres of the wetlands to be impacted on the site are considered short hydroperiod (wet prairie, hydric pine, wetland hardwood communities) and more closely compare to the type of habitat found at the Pine Glades West Mitigation Area. The Loxahatchee Mitigation Bank does not have credits available for the 5.18 acres of hydric pine flatwood impacts proposed at the project site. Additionally, the Pine Glades mitigation area is located within the same drainage basin as the project site. By providing some of the project mitigation within the same drainage basin as the impacts, the applicant has demonstrated that the project will not result in adverse cumulative impacts to the drainage basin as defined by the SFWMD. The determination that utilization of the Pine Glades West Advance Mitigation Area for a portion of the impacts would be environmentally preferable to the purchase of mitigation bank credits is based on a watershed approach that recognizes the environmental importance of the large area of wetland habitats being enhanced and preserved and the ecological connection of the Pine Glades West Advance Mitigation Area to other adjacent preserved natural areas including an additional 4,720 acre area of the Pine Glades Natural Area, the 12,000-acre Hungryland Wildlife and Environmental Area to the north of the site, and the Corbett Wildlife Management Area to the west. These large natural areas provide important wildlife corridors and hydrologic connections between wetlands in north Palm Beach County/south Martin County and the Loxahatchee River. The Pine Glades West Mitigation Area is owned and managed by Palm Beach County, which has a successful record of wetland restoration and enhancement based on rigorous scientific and technical analysis, planning, and implementation. The County has demonstrated it has the financial resources to implement and maintain the mitigation area in perpetuity. These factors, combined with the ecological benefits of the proposed mitigation and

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the successful wetland enhancement work already completed at the site, reduce the risk and uncertainty usually associated with permittee-responsible mitigation. Therefore, the in-kind, permittee-responsible offsite mitigation area was determined to be the most appropriate form of mitigation to offset proposed impacts to short hydroperiod wet prairie, hydric pine, and wetland hardwood communities despite the mitigation order preference outlined at 33 CFR 332. The portion of the mitigation plan involving the enhancement and preservation 7.50 acres of onsite Wetland A is being proposed to offset the secondary impacts to Wetland A resulting from the surrounding development. The Corps determined Wetland A would remain viable post-project and would provide valuable habitat that would support wildlife located in the 83.26 acres of proposed onsite upland enhancement and preservation. It was determined that mitigating for secondary impacts to wetland A with enhancement and preservation of wetland A would be environmentally preferable to the purchase of mitigation bank credits. The project also includes the purchase of herbaceous freshwater credits at the Loxahatchee Mitigation Bank, to offset impacts to longer hydroperiod wetlands.

(a) Description of the compensatory mitigation: The mitigation plan was revised after the public notice to account for the additional wetland impacts proposed and the preference for “in-kind” mitigation and the utilization of mitigation bank credits provided in 33 CFR 332. The revised compensatory mitigation plan is to enhance and preserve 7.50 acres of wetland A and 1.72 acres of wetland buffers, enhance and preserve 395 acres at the Pine Glades West Advance Mitigation Area (providing 23.39 UMAM functional units to offset impacts to short hydroperiod wetlands and hydric pine flatwoods), and purchase 13.7 herbaceous credits at the Loxahatchee Mitigation Bank to offset impacts to long hydroperiod wetlands. The Corps evaluated the wetlands on the property and approved the Uniform Mitigation Assessment Method (UMAM) and Modified Wetland Rapid Assessment Procedure (M-WRAP) data sheets provided by the applicant for all wetlands proposed for impact or mitigation. The approved UMAM and M-WRAP assessments are as follows:

Table 1. UMAM assessment for wetland impacts (mitigation provided at the Pine Glades West Advance Mitigation Area).

Impact ID	FLUCCS	Acres	UMAM Delta	UMAM Functional Loss
Wetland C	643	1.17	0.37	0.43
Wetland F	619	3.03	0.50	1.52
Wetland G	619	4.72	0.47	2.22
Wetland I	619	3.56	0.50	1.78
Wetland J	619	3.23	0.33	1.07
Wetland K	643	1.04	0.40	0.42
Wetland M	619	5.90	0.50	2.95
Wetland N	643	0.25	0.40	0.10
Wetland R	619	1.21	0.53	0.64
Wetland S	625	5.18	0.70	3.63
Wetland X	643	0.13	0.33	0.04

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Wetland Y	643	0.10	0.33	0.03
Wetland Z	643	0.13	0.33	0.04
Wetland CC	610	11.51	0.47	5.41
Wetland CC	643	3.70	0.47	1.74
Wetland DD	619	1.63	0.40	0.65
Wetland EE	643	0.20	0.33	0.07
Wetland FF	643	0.97	0.47	0.46
Wetland II	643	0.10	0.33	0.03
<b>TOTALS:</b>		<b>47.76</b>		<b>23.23</b>

Table 2. M-WRAP assessment for wetland impacts (mitigation provided at the Loxahatchee Mitigation Bank).

Impact ID	FLUCCS	Acres	WRAP Delta	WRAP Functional Loss
Wetland A	641	0.18	0.52	0.09
Wetland C	641	1.41	0.45	0.63
Wetland D	641	0.73	0.50	0.37
Wetland E	619	5.17	0.50	2.59
Wetland G	619	0.91	0.46	0.42
Wetland H	619	0.61	0.32	0.20
Wetland L	641	0.57	0.50	0.29
Wetland O	641	2.78	0.58	1.61
Wetland P	641	2.21	0.58	1.28
Wetland Q	619	2.02	0.35	0.71
Wetland AA	619	1.41	0.42	0.59
Wetland BB	641	0.22	0.54	0.12
Wetland CC	641	1.38	0.48	0.66
Wetland GG	619	2.90	0.31	0.90
Wetland HH	619	2.98	0.42	1.25
Wetland JJ	641	0.32	0.49	0.16
Wetland LL	619	1.28	0.38	0.49
Wetland MM	619	0.79	0.42	0.33
Wetland OO	641	0.08	0.39	0.03
Ditches U, V, W	510	2.72	0.33	0.90
Ditch T	510	0.04	0.42	0.02
<b>TOTALS:</b>		<b>30.71</b>		<b>13.64</b>

Time lag and risk were not assessed for the enhancement of wetland A since the secondary impact is minor, the risk is expected to be negligible, and restoration would be completed within a year of the commencement of wetland impacts associated with the construction of Basin 1W. Time lag and risk were not assessed for the mitigation proposed at the Pine Glades West

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Advance Mitigation Area because this mitigation was scored as “preservation” with a “preservation adjustment factor” as provided in UMAM. The preservation adjustment factor was determined to be 0.5 for wet flatwoods and 0.4 for depression marsh/wet prairie habitat. Of the 395 acres of mitigation proposed at the Pine Glades West Advance Mitigation Area, approximately 242.5 acres would be wet flatwood enhancement (UMAM relative functional gain of 0.065 resulting in 15.76 functional capacity units) and approximately 152.5 acres would be marsh/wet prairie enhancement (UMAM relative functional gain of 0.05 resulting in 7.63 functional capacity units). The ratio of the area of these two mitigation habitat types is similar to the ratio of forested and herbaceous habitat area impacted at the project site; therefore the proposed mitigation at the Pine Glades West Advance Mitigation Area is “in-kind”.

The total functional loss for the wetland impacts to be mitigated at the Loxahatchee Mitigation Bank is 13.64 M-WRAP functional capacity units. The total functional loss for the wetland impacts to be mitigated at the Pine Glades West Advance Mitigation Area is 23.23 UMAM functional capacity units. The mitigation proposed at the Pine Glades West Advance Mitigation Area would provide 23.39 UMAM functional units and 13.7 herbaceous credits would be purchased at the Loxahatchee Mitigation Bank. The secondary impacts to wetland A are fully offset by the enhancement and preservation proposed in wetland A. Therefore, the compensatory mitigation proposed fully offsets all direct and secondary impacts to wetlands and ditches at the project site.

(b) Selection of the mitigation type and location, §332.3(b)(2)-(6), considered the following: For longer hydroperiod wetlands, the purchase of herbaceous credits at the Loxahatchee Mitigation Bank was considered the most appropriate form of mitigation in accordance with 33 CFR 332. For shorter hydroperiod wetlands including wet prairie and hydric pine flatwoods, the utilization of the Pine Glades West Advance Mitigation Area was determined to be environmentally preferable as described in Section 9 (a)(5). It was also determined that mitigating for secondary impacts to wetland A with enhancement and preservation of wetland A would be environmentally preferable to the purchase of mitigation bank credits because of the wildlife support this area would provide to animals utilizing the preserved onsite upland habitat.

(c) Selection relied upon the following aspects of the Mitigation Plan, §332.4(c)(2)-(14), NA if Mitigation Bank or In-Lieu Fee):

Objectives: The County will perform restoration and enhancement activities, and record a passive recreational conservation easement over the Pine Glades West Advance Mitigation Area to ensure preservation of the mitigation area in perpetuity in accordance with the Corps-approved mitigation plan. The County would be required to enhance and preserve the 7.50 acre wetland A in accordance with the Corps-approved mitigation plan.

Site Selection: For the Pine Glades West Advance Mitigation Area, a large area of wetland habitats would be enhanced and preserved. These wetlands have an ecological connection to

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other adjacent preserved natural areas. For wetland A, the enhancement and preservation activities would occur onsite, providing valuable aquatic habitat that would support species utilizing the upland habitat preserved onsite.

**Site Protection Instrument:** A passive recreational conservation easement in favor of the SFWMD will be placed over the entire Glades West Advance Mitigation Area to provide perpetual protection to the Mitigation Area. The Corps will have third-party enforcement rights. The County would also be required to place a conservation easement over the 7.50 acre wetland A.

**Baseline Information:** The Pine Glades West Advance Mitigation Area is predominantly higher quality native wetland communities. The mitigation area is composed primarily of depressional, wet prairie and wet flatwoods wetland systems. Exotic/nuisance vegetation coverage ranges from 0-20 percent (primarily melaleuca) within the proposed mitigation area. The mitigation area also shows signs of moderate disturbance from hog rooting which promotes the spread of exotic/nuisance vegetation. The onsite wetland A is a freshwater marsh with approximately 10% coverage of exotic/nuisance species.

**Determination of Credits:** The ecological lift was determined using UMAM.

**Mitigation Work Plan:** Exotic vegetation removal is ongoing in the Pine Glades West Advance Mitigation Area. To control feral hog populations on the site, the County will contract with the U.S. Department of Agriculture to provide feral hog removal services. Unauthorized off-road vehicle use is a problem in certain portions of the site. Fencing and/or barriers shall be installed and maintained along the boundaries of the site in a manner that will limit unauthorized uses of the Mitigation Area. In addition, the County has a contract with the Sheriff's Department to provide deputies to patrol the County's Natural Areas, including this Mitigation Area. A total of 7.50 acres of wetland A will be enhanced and preserved on the project site. The wetlands will be enhanced by receiving treated water through the proposed surface water management system and by exotic and nuisance plant species removal. A total of 1.72 acres of wetland buffers will also be preserved and enhanced adjacent to wetland A.

**Maintenance Plan:** The mitigation area will be incorporated in the County's Pine Glades Natural Area and will be managed in perpetuity in accordance with the Pine Glades Natural Area Management Plan, which includes the treatment/removal of exotic/nuisance plant species. Additionally, prescribed burns, fuel reduction, and other management techniques will be utilized to encourage native species regeneration and diversity and to maintain minimal coverage of exotic/nuisance species. Wetland A would be maintained by the permittee in accordance with the DA permit special conditions.

**Performance Standards:** To meet the objectives of the approved compensatory mitigation plan, the permittee shall achieve the following performance standards:

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- a. At least 80 percent cover by appropriate wetland species (i.e., FAC or wetter).
- b. Cover of Category I and II invasive exotic plant species, pursuant to the most current list established by the Florida Exotic Pest Plant Council at <http://www.fleppc.org>, and the nuisance species, dogfennel (*Eupatorium capillifolium*), Bermudagrass (*Cynodon* spp.), Bahiagrass (*Paspalum notatum*), and cattail (*Typha* spp.) shall total less than 5 percent.
- c. Hydrologic enhancement of the 7.5-acre onsite wetland will result in soils that are saturated to the surface or inundated with a frequency and duration sufficient to support appropriate wetland hydrology.
- d. Maintain the entire Pine Glades West Advance Mitigation Area in perpetuity in accordance with the County's Pine Glades Natural Area Management Plan.

Monitoring Requirements: To show compliance with the performance standards the Permittee shall complete the following:

- a. Perform a time-zero monitoring event of the wetland mitigation area(s) within 60 days of completion of the compensatory mitigation objectives identified in the **Compensatory Mitigation** Special Condition of this permit.
- b. Submit the time-zero report to the Corps within 60 days of completion of the monitoring event. The report will include at least one paragraph depicting baseline conditions of the mitigation site(s) prior to initiation of the compensatory mitigation objectives and a detailed plan view drawing of all created, enhanced and/or restored mitigation areas.
- c. Subsequent to completion of the compensatory mitigation objectives, perform semi-annual monitoring of the wetland mitigation areas for the first 2 years and annual monitoring thereafter for a total of no less than 5 years of monitoring.
- d. Submit annual monitoring reports to the Corps within 60 days of completion of the monitoring event. Semi-annual monitoring will be combined into one annual monitoring report.
- e. Monitor the mitigation area(s) and submit annual monitoring reports to the Corps until released in accordance with the Special Conditions of the DA permit.

Long-term management plan: The perpetual management of the mitigation areas would be required by DA permit conditions.

Adaptive management plan: The County would implement an adaptive management approach should the County be unable to construct the project according to the approved

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mitigation plans or if the project does not meet approved success criteria within the monitoring period. Should either of the above scenarios occur, the County will consult with the Corps and will agree upon acceptable modifications to the mitigation plan in order to complete and/or bring the mitigation area into compliance with the Corps permit, as well as move the mitigation area toward the identified success criteria and long-term sustainability.

Financial Assurances: Construction, maintenance, and perpetual management of the Pine Glades West Advance Mitigation Area will be funded from three sources: 1) the County's "Natural Areas Fund," and interest bearing account that is used to restore, maintain, manage, and construct public use facilities on all the County's Natural Areas, 2) the County's "Natural Areas Stewardship Endowment Fund", an interest bearing account that is used to manage all the County's natural areas, and 3) contributions to these funds from the County Department that is utilizing the proposed mitigation. The Permittee has the financial resources to enhance and maintain wetland A.

Other Information ( NA)

(d) Selection is environmentally preferable, §332.3(a)(1), based on the following: For shorter hydroperiod wetlands including wet prairie and hydric pine flatwoods, the utilization of the Pine Glades West Advance Mitigation Area was determined to be environmentally preferable as described in Section 9 (a)(5). Wetland A enhancement was determined to be environmentally preferable to offset secondary impacts to wetland A as described in Section 9 (a)(5).

(6) Other Mitigative Actions:  NA

b. Special Condition.

(1) Functional assessment. M-WRAP assessment for wetland impacts with mitigation provided at the Loxahatchee Mitigation Bank. UMAM assessment for wetland impacts with mitigation provided at the Pine Glades West Advance Mitigation Area. For wetland A, the pre-project and post-project UMAM scores would remain the same. The location and landscape support score for wetland A would go down 1 point as a result of project construction, and the community structure score would go up 1 point as a result of the enhancement activities proposed. See Table 1 and Table 2 in this document.

(2) Compensatory mitigation required by special conditions of the permit. The permittee would be required to enhance and preserve 395 acres of wetlands at Pine Glades West Advance Mitigation Area and purchase of 13.7 herbaceous freshwater wetland credits at the Loxahatchee Mitigation Bank. The permittee would be required to enhance and preserve 7.50 acres of wetland A and 1.72 acres of wetland buffer adjacent to wetland A to offset secondary impacts to wetland A.

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(3) Other mitigative actions required by special conditions of the permit.  NA

10. General evaluation criteria under the public interest review. We considered the following within this document:

a. The relative extent of the public and private need for the proposed structure or work: Public benefits include employment opportunities and a potential increase in the local tax base. Private benefits include land use and economic return on the property.

b.  There are no unresolved conflicts as to resource use. ( There are unresolved conflicts as to resource use. One or more of the alternative locations and methods described above are reasonable or practicable to accomplish the objectives of the proposed structure or work but are not being accepted by the applicant.) ( There are unresolved conflicts as to resource use however there are no practicable reasonable alternative locations and methods to accomplish the objective of the proposed work.)

c. The extent and permanence of the beneficial and/or detrimental effects, which the proposed work is likely to have on the public, and private uses to which the area is suited.  Detrimental impacts are expected to be minimal although they would be permanent in the construction area. The beneficial effects associated with utilization of the property would be permanent.

11. Determinations

a. Public Hearing Request:  NA/ I have reviewed and evaluated the requests for a public hearing. There is sufficient information available to evaluate the proposed project; therefore, the requests for a public hearing are denied.

b. Section 176(c) of the Clean Air Act General Conformity Rule Review: The proposed permit action has been analyzed for conformity applicability pursuant to regulations implementing Section 176(c) of the Clean Air Act. It has been determined that the activities proposed under this permit will not exceed de minimis levels of direct or indirect emissions of a criteria pollutant or its precursors and are exempted by 40 CFR Part 93.153. Any later indirect emissions are generally not within the Corps' continuing program responsibility and generally cannot be practicably controlled by the Corps. For these reasons a conformity determination is not required for this permit action.

c. Relevant Presidential Executive Orders (EO).

(1) EO 13175, Consultation with Indian Tribes, Alaska Natives, and Native Hawaiians.  This action has no substantial direct effect on one or more Indian tribes. The comments received by the STOF were considered and site 8PB16953 would be preserved.

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(2) EO 11988, Floodplain Management.

Not in a floodplain. ( Alternatives to location within the floodplain, minimization, and compensation of the effects were considered above.)

(3) EO 12898, Environmental Justice. In accordance with Title III of the Civil Right Act of 1964 and Executive Order 12898, it has been determined that the project would not directly or through contractual or other arrangements, use criteria, methods, or practices that discriminate on the basis of race, color, or national origin nor would it have a disproportionate effect on minority or low-income communities.

(4) EO 13112, Invasive Species:

The evaluation above included invasive species concerns in the analysis of impacts at the project site and associated compensatory mitigation projects.  Through special conditions, the permittee will be required to control the introduction and spread of exotic species.

(5) EO 13212 and 13302, Energy Supply and Availability.

The project was not one that will increase the production, transmission, or conservation of energy, or strengthen pipeline safety.

d. Finding of No Significant Impact (FONSI). Having reviewed the information provided by the applicant and all interested parties and an assessment of the environmental impacts, I find that this permit action will not have a significant impact on the quality of the human environment. Therefore, an Environmental Impact Statement will not be required.

e. Compliance with 404(b)(1) guidelines. Having completed the evaluation in Sections 5 and 6 of this document, I have determined that the proposed discharge complies with the 404(b)(1) guidelines.

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f. Public Interest Determination: I find that issuance of a Department of the Army permit is  
not contrary to the public interest.

PREPARED BY:



Eric Reusch  
Project Manager

6/10/11

\_\_\_\_\_  
Date

REVIEWED BY:



Leah Oberlin  
Chief, Palm Beach Gardens Section

6/10/11

\_\_\_\_\_  
Date

APPROVED BY:



ALFRED A. PANTANO, JR.  
Colonel, Corps of Engineers  
Commanding

6/10/2011

\_\_\_\_\_  
Date