

**MEMORANDUM FOR RECORD**

**SUBJECT: Department of the Army Environmental Assessment and Statement of Findings for the Above-Referenced Standard Individual Permit Application**

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

**1.0 Applicant:** Hanover Capital Partners LLC  
Attn: Ben Snyder  
2420 South Lakemont Ave, Suite 450  
Orlando FL 32814

**2.0 Project Location:** The project would affect waters of the United States associated with Alligator Lake. The project site is located immediately south of Alligator Lake Road and east of Hickory Tree Road. Overall the proposed project site is +/-177.97 acres and is located in Section 29, Township 26 South and Range 31 East in Osceola County, Florida.

2.1 Approximate central coordinates

28.2052 ° North Longitude: 81.2393 ° West

**3.0 Proposed Project Information:**

3.1 Proposed project description: The applicant seeks authorization to complete the following actions:

- 1) Dredge and fill 4.84 acres of waters of the United States (2.46 acres of wetlands and 2.38 acres of jurisdictional surface waters) to construct a 539 lot single-family residential subdivision with a manmade lake ;
- 2) The excavation of 1.23 acres of uplands to create of a boat basin which will become part of Alligator Lake;
- 3) Installation of a boat lift which would transfer boats from the manmade lake into Alligator Lake;
- 4) Dredge a 0.526 acre channel in Alligator Lake to facilitate navigational access from the proposed boat basin to deeper waters of Alligator Lake;
- 5) Construct a private boat ramp and an ancillary dock within the boat basin; and
- 6) Install aids to navigation adjacent to the dredged channel.

3.2 Proposed avoidance and minimization measures: Through project revisions the applicant has reduced the proposed channel dredging in Alligator Lake to 0.526 acre and eliminated 17 lots to avoid and minimize wetland impacts. The proposed channel will be dredged to a depth of 4 feet below low water conditions of the lake and is 500 feet in length. The length of the proposed dredge area was limited to the average length of existing boat docks on Alligator Lake. Avoidance and minimization is discussed further in Section 9.0.

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- 3.3 Proposed compensatory mitigation plan: The applicant initially proposed to complete permittee responsible mitigation at the State-approved QuickDraw Mitigation Bank. However, after further consideration the applicant amended the mitigation plan to acquire mitigation credits from Southport Ranch Mitigation Bank, which offers both state and federal credits.
- 3.4 Jurisdictional determination information: A preliminary jurisdictional determination was issued. See the administrative record.
- 3.5 Existing conditions and project history, if applicable: The total project area is 177.97 acres, with 9.06 acres of freshwater wetlands consisting of tributaries (five ditches / surface water systems) totaling 2.51 acres and nine wetland communities totaling 6.55 acres. The project uplands total 168.91 acres and consist of sod fields, citrus groves, improved pasture, oak dominated uplands and single family homes. The on-site habitats have been classified according to the Florida Land Use, Cover and Forms Classification System, Department of Transportation (FLUCFCS; DOT 1999). A brief description of each FLUCFCS community is provided below.

#### 166 – Holding Pond

Three man-made ponds are present on the west side of the property. These ponds were excavated to provide water for the cattle.

#### 211 – Improved Pasture

This community is found on the southwest portion of the property. Scattered tree species are present. This area is used for cattle grazing.

The vegetation is currently dominated by bahia grass (*Paspalum notatum*), hairy indigo (*Indigofera hirsuta*), blackberry (*Rubus cuneifolius*), broomsedge (*Andropogon virginicus*), caesar weed (*Urena lobata*), dogfennel (*Eupatorium capillifolium*), cogon grass (*Imperata cylindrical*), sedge grass (*Cyperaceae* spp.), common beggarticks (*Bidens alba*), crabgrass (*Digitaria* spp.), sandspur (*Cenchrus echinatus*) and oldfield toadflax (*Linaria canadensis*). Tree species observed include live oak (*Quercus virginiana*) and longleaf pine (*Pinus palustris*).

#### 221 –Citrus Grove

This community is found throughout the property and is the dominant upland habitat type. Orange (*Citrus aurantium*) trees dominate this community. Groundcover consists of dense bahia grass (*Paspalum notatum*) with weedy species such as blackberry, common beggarticks, oldfield toadflax, American beautyberry (*Callicarpa americana*), Caesar weed, Mexican-tea (*Chenopodium ambrosioides*), Virginia creeper (*Parthenocissus quinquefolia*), broomsedge (*Andropogon virginicus*), grapevine (*Vitis rotundifolia*), ragweed (*Ambrosia*

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artemisiifolia), Florida pusley (*Richardia scabra*) and natal grass (*Rhynchelytrum repens*).

#### 240 – Nursery

Two former plant nurseries are present on the southeast portion of the property. Remnant landscape palms were observed along with discarded plastic landscape containers, landscape cloth and irrigation piping.

#### 242 – Sod Farm

A large field, located on the west side of the property, is used for sod production. The field has been recently harvested and seeded. Irrigation was not observed within this field. Bahia grass sprigs were present.

#### 414 – Pine-Mesic Oak

This upland community is present on the east side of the property. Currently, the canopy is dominated by slash pine (*Pinus elliottii*) with longleaf pine. The subcanopy contains woody species including laurel oak and scattered citrus trees. Groundcover includes stands of wiregrass (*Aristida beyrichiana*) with little bluestem (*Schizachyrium scoparium*), split beard bluestem (*Andropogon ternaries*), chalky bluestem (*Andropogon virginicus*), prickly pear cactus, shiny blueberry (*Vaccinium myrsinites*), silk-grass (*Pityopsis graminifolia*), alicia (*Chapmannia floridana*), goldenrod (*Solidago odora*) and natal grass. Saw palmetto (*Serenoa repens*) is present in the shrub layer.

#### 513 – Ditch

This man-made ditch is located on the west side of the property. This ditch contains standing water along with Asian pennywort (*Chenopodium glaucum*), soft rush (*Juncus effuses*) and marsh pennywort (*Hydrocotyle umbellata*).

#### 520 – Lakes

Alligator Lake is present on the east side of the property. The lake littoral zone contains a variety of native wetland species including rush fuirena (*Fuirena scirpoidea*), marsh pennywort (*Hydrocotyle umbellata*), yellow-eyed grass (*Xyris* spp.), maidencane (*Panicum hemitomon*), meadowbeauty (*Rhexia mariana*) and water lily (*Nymphaea odorata*). Nuisance species were also observed and include primrose willow (*Ludwigia peruviana*) and cogon grass (*Imperata cylindrica*).

#### 615 – Stream and Waterways

A forested wetland with a man-made ditch flows along the southern property boundary. The canopy contains bald cypress (*Taxodium distichum*), black gum (*Nyssa sylvatica*), dahoon holly (*Ilex cassine*) and wax myrtle (*Myrica cerifera*). Groundcover includes Virginia chain fern (*Woodwardia virginica*), cinnamon fern (*Osmunda cinnamomea*), royal fern (*Osmunda regalis*), redroot (*Lachnanthes*

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caroliana) and bog buttons (*Lachnocaulon* sp.). There are some examples of invasive species within the wetland such as Chinese tallow tree (*Triadica sebifera*), primrose willow and Carolina willow (*Salix caroliniana*).

**4.0 Permit Authority:** Section 404 of the Clean Water Act (33 USC 1344); Section 10 of the Rivers and Harbors Act of 1899 (33 USC 403)

**5.0 Scope of analysis for the National Environmental Policy Act, permit area for Section 106 of the National Historic Preservation Act and action area for Section 7 of the Endangered Species Act:**

5.1 Determination of scope of analysis for the National Environmental Policy Act (NEPA): The proposed development is a single and complete project and not dependent on future actions to meet its overall project purpose. The configuration of the property (shape of the uplands and wetlands), proposed internal lake and lake access, and proximity to existing roadways dictate the design of the proposed project. The project area contains jurisdictional waters of the United States which are regulated pursuant to Section 404 of the Clean Water Act of 1972 and the National Environmental Policy Act. The site may contain resources protected under the National Historic Preservation Act, Fish and Wildlife Coordination Act, Executive Order 11990, Protection of Wetlands, and the Endangered Species Act. The property is located within the United States Fish and Wildlife Service's (FWS) Consultation Area for several federally listed species.

Final description of scope of analysis: The extent of cumulative Federal control and responsibility extends to the entire property, including portions outside waters of the United States. Other portions of the entire project are included because the Corps does have sufficient control and responsibility to warrant federal review.

5.2 Determination of permit area for Section 106 of the National Historic Preservation Act (NHPA):

The permit area includes those areas comprising waters of the U.S. that will be directly affected by the proposed work or structures, as well as activities outside of waters of the U.S. because all three tests identified in 33 CFR 325, Appendix C(g)(1) have been met.

Final description of the permit area: The permit area will include the entire project site.

5.3 Determination of "action area" for Section 7 of the Endangered Species Act (ESA): The proposed work must occur in uplands and waters of the United States (wetlands) to accomplish its overall project purpose. The action area for ESA has

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been determined to be the entire project site.

**6.0 Purpose and Need:**

6.1 Applicant’s stated purpose and need: Obtain a permit for proposed wetland impacts, necessary for the development of the property as a single family subdivision with lake access.

6.2 Basic purpose and need: Residential

6.3 Water dependency determination: The activity does not require access or proximity to or sighting within a special aquatic site to fulfill its basic purpose. Therefore, the activity is not water dependent.

The basic project purpose, i.e., to construct houses, does not require access, proximity to, or to be located within a special aquatic site, including jurisdictional wetlands. Therefore the Corps has determined that the proposed discharges of fill material associated with the residential component of this project are not water dependent and the presumptions in the 404(b) (1) Guidelines (the “Guidelines”) apply to the determination of least environmental damaging practicable alternative (LEDPA) for the residential component of the project which is the primary purpose of this proposal. Specifically, practicable alternatives to the proposed discharges of fill material into non-wetland sites are presumed to be available unless clearly demonstrated otherwise by the Applicant as is outlined in 40 C.F.R. § 230.10(a) (3). Additionally, all practicable alternatives that do not involve a discharge into a special aquatic site are presumed to have less adverse impact on the aquatic ecosystem unless clearly demonstrated otherwise by the Applicant. *Id.*

The boat access element of the project, including the proposed construction of a boat lift, excavation of uplands to create a boat basin, and dredging of 0.526 acre of Alligator Lake for an access channel does not involve the discharge of dredged or fill material into waters of the United States; therefore the boat access element is not subject to the presumptions in the 404(b)(1) Guidelines at 40 C.F.R. § 230.10(a)(3). The activities associated with the proposed boat lift, excavation of uplands to create a boat basin, and dredging of 0.526 acre of Alligator Lake are regulated pursuant to Section 10 of the Rivers & Harbors Act, 33 U.S.C. § 403 (“Section 10”).

6.4 Overall purpose and need: Original project purpose as stated in the public notice: To provide a residential development having water related recreational amenities and lake access in St. Cloud, Florida.

After further consideration of the applicant’s needs and the type of project being

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proposed the overall project purpose was amended to the following: To provide a residential development having water related recreational amenities and boating access to the Alligator Chain of Lakes.

**7.0 Application Complete for Public Notice:**

7.1 Date application received: 6 October 2015

7.2 Application complete for Public Notice (PN) consistent with 33 CFR 325.1(d)? No

7.3 If no, date(s) additional information requested 26 October 2015, 22 February 2016, and 4 May 2016

7.4 Date application complete for PN: 23 May 2016

**8.0 Coordination:**

8.1 PN:

8.1.1 Date PN issued: 26 May 2016

Agencies and persons consulted: See list attached to PN in the administrative record

8.1.2 Were comments received on the PN? Yes  
Date Corps acknowledged the receipt of PN comments: 14 July 2016

8.1.3 Summary of comments received:

Federal Agencies: National Marine Fisheries Service (NMFS): By email dated 31 May 2016, NMFS indicated the proposed project would not occur in the vicinity of Essential Fish Habitat. Present staffing levels preclude further analysis of the proposed activities and no further action is planned. This position is neither supportive of nor in opposition to authorization of the proposed work.

Federally Recognized Native American Tribes and Affiliated Groups: N/A

State and Local Agencies: State Historic Preservation Officer: By letter dated 23 June 2016, SHPO stated that the project area was surveyed in 2014 and reviewed by their office in 2015 (DHR #201505705). The cultural resources assessment survey discovered one structure, 8OS02788, which was determined to be ineligible for listing on the NRHP. The Corps determined the proposed project will have no effect on t properties listed, or eligible for listing, on the NRHP.

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State Senator Darren Soto provided a letter dated 19 September 2016, requesting denial of the Department of the Army (DA) permit application. Senator Soto stated: “aforementioned permit would allow heavy dredging causing costly environmental damage such as an overflow of muck and nutrients, destruction of native flora and fauna, and spoiling of our aquifer, among other damages. This permit would also set a dangerous precedent by paving the way for current and prospective major dredging in these beautiful and natural lakes.”

State Representative Mike La Rosa provided a letter dated 5 August 2016 expressing concerns about the potential impact the proposed development will have upon the natural ecosystem of Alligator Lake.

Osceola County Board of County Commissioners provided a letter dated 3 August 2016, recommending denial of the DA permit application.

Individual(s) and Organized Groups: Seventy-six individuals responded with letters of objection to the proposed action; most requested denial of the permit application and a public hearing or meeting to express their concerns. Concerns included:

- Dredging within Alligator Lake which could create an area for muck to accumulate.
- The addition of boats from the proposed action would create a safety hazard from too many boats on the lake. Too many boats on the lake would also adversely affect the aesthetics of Alligator Lake.
- Recommended the use of existing boat ramps instead of creating new access points.
- Objections to boats being taken in and out of Alligator Lake at the project site resulting in the potential for exotic plants to enter the lake and the potential for cross-contamination water from the stormwater pond into Alligator Lake.
- Concerns about overall water quality impacts to Alligator Lake from runoff and additional boats.
- Concerned that the issuance of a Department of the Army permit for the proposed action would create a precedent for future development on Alligator Lake.
- The proposed action would result in the de-valuing of property values.

Ralf Brookes provided comments on behalf of clients who include numerous citizens that reside on the six lakes that form the Alligator Chain of Lakes, including: Mike Reilly, who resides on Coon Lake in Osceola County, Florida. Brookes requested the permit be denied because there are practicable alternatives that would avoid impacts to wetlands and surface waters. Brookes expressed concern about potential adverse effects from connecting the proposed interior stormwater management lake to Alligator Lake and the proposed dredging in Alligator Lake because of the anticipated impacts, which include but are not

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limited to, dredging and filling of wetlands for housing (a non-water dependent use that can be sited without wetland impacts), and adverse impacts to navigation, water quality, noise, and invasive species which are likely to increase over time and will adversely affect Alligator Lake. Brookes also stated the dredge and fill for an artificially created access point into the Alligator Chain of Lakes would set a dangerous precedent.

Mr. Brookes submitted two alternative sites for consideration by electronic letter dated 26 October 2016.

8.2 Were additional issues raised by the Corps including any as a result of coordination with other Corps offices? No

If yes, provide discussion:

8.3 Were comments and/or concerns forwarded to the applicant for response? Yes

Date(s) the applicant provided a response to the comments and concerns: 19 August 2016

**Summarize applicant response:** The applicant stated that the proposed action is a unique, multi-phased, high-end residential community that includes a 45 acre stormwater management system that will also serve as an internal navigable lake. Vista Lakes will be a boating community. In Phase 1, a boat ramp (launch) will be constructed within the residential stormwater management facility (lake) and a boat lift will be constructed to transport a limited number of boats into Alligator Lake. A second boat ramp will be constructed with Phase 5 outside of the boat lift, and within the channel, to allow those residents within the community easier access Alligator Lake.

Access to Alligator Lake is an integral and important aspect of this unique community. Presently there are three access points to the Alligator Lake chain of lakes.

1. There is a public boat ramp along Hickory Tree Road at the southeast end of Alligator Lake. This is the most accessible ramp within the chain and includes limited parking area for several vehicles with boat trailers.
2. There is a public boat ramp along Bass Highway that allows access to Trout Lake. This location has gravel and dirt road access and allows for approximately 5 vehicles with trailers.
3. There is a boat ramp at the west end of Adams Street that allows access to Center Lake. This location does not include a concrete ramp so access is at one's own risk. There is no dedicated parking for vehicles with trailers.



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The applicant anticipates that the proposed boat ramps and boat lift within the Vista Lakes community will benefit the local community by allowing additional safe, access locations without risking burdening the current limited public facilities. Furthermore, the internal boat ramps and the boat lift will be constructed and maintained by the Developer and the community Homeowners Association which will not burden the local residents and tax payers.

The methodical timing of the proposed boat lift will provide for safety for the future residences. The average time for one boat to pass through the lift will limit the number of boats that can access Alligator Lake. The timing of the boat lift reduces potential accidents by regulating the number of boats entering Alligator Lake from the project site per hour and in a typical day (daytime hours). According to lift manufacture the average time for one boat to be loaded onto the lift, transported over the earthen berm and offloaded on the other side will be 15 minutes. Therefore a theoretical maximum of 4 boats per hour can access the lake. During the summer months, the average sunrise is 6:50 am and the average sunset is 8:13 pm. Therefore the average daylight time in a day is 13 hours and 23 minutes. If the boat lift was used continuously and at maximum efficiency for the full 13 hours and 23 minutes of daylight, then an estimated total of 53 boats could access Alligator Lake during daylight hours provided, however this factor does not take into consideration that boats will also use the boat lift to return to Vista Lakes from Alligator Lake. The returning boats will impact the number of boats that could use the boat lift to gain access to Alligator Lake. Afternoon thunderstorms, seasonal fluctuations and a variety of other factors such as high temperatures will also limit the number of boaters per day. The confluence of these factors make it reasonable to assume that the maximum number of boaters gaining access to Alligator Lake will be significantly less than 53, which is a very small number considering the size of Alligator Lake and the Alligator chain of lakes as a whole.

The applicant proposed three site plans to demonstrate the modifications made to the site plan to avoid and minimize dredging and filling in waters of the United States. The alternatives are discussed further in paragraph 9.2.3. The applicant provided detailed information specific to the Corps' public interest factors and responded to comments provided by the public, U.S. Environmental Protection Agency and Osceola County.

The design of the project and future permitted master stormwater system prevents negative water quality impacts to Alligator Lake. There will be no direct mixing of the internal lake water with Alligator Lake. Therefore there will be no "muck basin" occurring within Alligator Lake. Water quality testing will provide SFWMD staff with data as to how the internal lake is performing and the effect of boat lift usage within the dredged canal.

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The addition of boaters on Alligator Lake is not expected to interfere with residents that currently use the lake. Alligator Lake is 3,551.57 acres in size (according to the Florida Atlas of 19 Lakes), so the lake is sufficiently large enough for additional boaters. Alligator Lake is part of a chain of lakes which further provides ample area for boaters.

The internal pond design meets the SFWMD criteria, which means that the system will meet the required State storm water discharge for water quality. The design and construction of the proposed 45 ac stormwater management facility will also serve as recreation for the development. The system will also be used as a navigable lake so that 20 residential boaters can access the proposed boat lift and be transported into Alligator Lake. Signage will be placed at the head of each finger canal in the lake and at the boat lift that specifically states the following: "This is a stormwater Management Facility: Catch and Release fishing Only, No Swimming, No Refueling, No Boat Repair, No Wakes." There is no intent that humans can contact the water within the storm water pond.

The boat lift and structural requirements will be designed and permitted through the Osceola County Building Department and will comply with all current State and Local building codes. The boat lift berm will be at a sufficient elevation (71.00 NAVD 1988) that will prevent overtopping of the internal stormwater management facility and navigable lake during the 100 year 72 hour storm event.

The applicant stated the dredged access canal would likely need to be maintained about every 10-15 years due to its location on the northwest side of Alligator Lake. The prevailing northwest wind in the winter would have a larger effect if the channel were on the south or east side of Alligator Lake.

Since no direct connection would occur between the internal lake and Alligator Lake no new invasive or nuisance plants are expected to be introduced into Alligator Lake. Nuisance species such as torpedo grass and water primrose currently exist along the Alligator Lake shoreline and specifically along the portion that Vista Lakes is proposing to dredge. Other nuisance and exotic plant species observed include cattail, primrose willow and Cuban bulrush.

The applicant stated that they have diligently pursued approvals for this project over the past 19 months; which included zoning and preliminary site plan approval with Osceola County (6 January, 2016), site plan approval (11 August 2016), and Development Order from the City of St. Cloud for utilities (18 July 2016). According to the applicant they have expended more than \$518,000.00 in engineering, consultants, testing, surveying and related design fees. Throughout the entire process, the applicant has complied with all of the Osceola County's engineering concerns and has modified the site plans accordingly to yield a

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project that will not only be aesthetically pleasing but will be technically sound as well. Osceola County did not express objection to the proposed action until publication of the Corps' public notice.

The applicant has provided a detailed compensatory mitigation plan which is discussed in paragraph 13.4 below.

8.4 Corps' evaluation of applicant's response: The response was considered sufficient.

8.5 Public hearing/meeting: A public hearing was requested. The Corps found that the issues raised by commenters have been addressed by the Corps and that there is no valid interest to be served by a public hearing.

8.5.1 Date public meeting held: N/A

**9.0 Alternatives Analysis:** An evaluation of alternatives is required under both NEPA and the Section 404(b)(1) Guidelines. NEPA requires consideration of a reasonable range of alternatives, including the no action alternative; under the Guidelines, practicability of alternatives is taken into consideration and no alternative may be permitted if there is a less environmentally damaging practicable alternative. Criteria used to screen alternatives are described in Section 9.1; alternatives to be evaluated are summarized in Section 9.2; evaluation of practicable alternatives based on site selection/screening criteria is presented in Section 9.3; and identification of the least environmentally damaging practicable alternative is presented in Section 9.4.

The 404(b)(1) Guidelines also require consideration of secondary effects, 40 C.F.R. § 230.11(h), in considering whether a proposed discharge of fill material will cause or contribute to significant degradation of waters of the United States. The Corps considers the proposed channel dredging within Alligator Lake to be a secondary effect of the proposed residential development which includes a boat lift and boat ramp providing navigable access to Alligator Lake. Therefore, the Corps has added dredging within Alligator Lake as a criteria for determining the least environmentally damaging practicable alternative.

9.1 Site selection/screening criteria: In order to be practicable, an alternative must be available, achieve the project purpose (as defined by the Corps), and be feasible when considering cost, logistics and technology. Based on the project purpose as defined by the Corps, the applicant provided information on site criteria that are necessary to achieve the overall project purpose.

Site selection criteria: The ability to provide a residential development having

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water related recreational amenities and boating access to the Alligator Chain of Lakes, cost, availability of utilities, and wetland impacts.

9.2 Alternatives to be evaluated:

9.2.1 No action alternative: The “no action” alternative would prevent the implementation of the project. The existing wetland systems would remain intact, no dredging within Alligator Lake would occur, and the proposed residential development would not be constructed. No financial resources would be expended to complete construction.

9.2.2 Off-site alternatives: The applicant considered one (1) alternative besides the site selected. Mr. Brookes submitted two off-site alternatives for consideration.

Alternative 1 – Buena Lago: Approximately 275-acre property located 3 miles south of the subject site located southeast of the intersection of Deer Run Road and Hickory Tree Drive on the south end of Alligator Lake. The property is in agricultural land use, consisting largely of improved pasture and wetlands. Municipal electric, water or sewer utilities would have to be extended approximately 3 miles to service the large scale development of the site. Aerial review of the site suggests over 100 acres of the site is wetland and likely within the 100 year floodplain. A detailed assessment of wetland impacts and functional assessment was not provided and the Corps has not been on-site to assess the jurisdictional limits or functional value. Based on the preliminary site plan provided by the applicant the Corps assumes that a discharge in waters of the United States would be required to fulfill the overall project purpose. The Corps assumes the direct impacts to wetlands (excluding other surface waters) would exceed 5 acres. This assessment does not consider amenities within Alligator Lake. The property was determined to be of sufficient size and configuration to support all of the necessary development and amenities. The DA received an application for development of this parcel during the review of the subject application.

Alternative 2 – 4501 Fanny Bass Road, St. Cloud, FL – This alternative was proposed by Mr. Ralf Brookes. According to documents provided by Mr. Brookes the parcel was listed for \$1.8 million in February 2015. A review of the Osceola County Property Appraisers website identifies this 114 acre parcel as a citrus grove with an appraised (just) market value of \$2.3 million. A review of aerial photography show the parcel does not appear to contain waters of the United States (wetlands or surface waters), is not located on a navigable lake, and does not have access to a navigable lake. The site is zoned agriculture and located on a dirt road. The site does not currently have the utilities available to support a large scale residential development.

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Alternative 3 – Hickory Tree – This alternative was proposed by Mr. Ralf Brookes. According to documents provided by Mr. Brookes the parcel was listed for \$1.4 million in October 2016 and has a future land use code of Mixed-Use. A review of the Osceola County Property Appraisers website identifies this 76 acre parcel with an appraised (just) market value of \$483 thousand with a zoning designation of vacant. A review of aerial photography shows the parcel likely contains medium to high quality forested wetlands. The site is not located on a navigable lake and does not have access to a navigable lake. The site abuts Lake Gentry Road and does not currently have the utilities available to support a large scale residential development.

9.2.3 On-site alternatives: applicant's proposed site alternative: Approximately 178-acre property located immediately south of Alligator Lake Road and east of Hickory Tree Road. The property is in agricultural land use, consisting largely of improved pasture and citrus groves. The proposed development would require the discharge of fill material into wetlands and surface waters to accomplish the overall project purpose. Municipal electric, water and sewer utilities would have to be extended approximately 1 mile to service the proposed development. The applicant determined the site to be of sufficient size and configuration to support all of the necessary development and amenities. The applicant has acquired development rights to the property and received necessary zoning and utility approvals to complete construction. The following design alternatives were considered for the 178 acre parcel:

Alternative 1: The original site plan (1 April 2015), developed prior to application submittal, proposed a much wider dredged channel in Alligator Lake. This plan allowed for two boats to pass through the channel at the same time and required dredging of approximately 3.09 acres or 14,838.2 cubic yards of dredged material. Additionally, a boat ramp was also proposed directly on Alligator Lake. Wetland and surface water impacts were estimated at 9 acres. This alternative would include a boat lift which would transport boats from the internal lake into the dredged channel which extends into Alligator Lake. It would also include installation of a boat ramp into the internal lake. No boat docks would extend into Alligator Lake.

Alternative 2 (Site plan included in public notice): The second site plan reduced the size of the proposed dredging within Alligator Lake to 1.23 acres. Wetland and surface water impacts were estimated at 7.97 acres. This alternative would include a boat lift which would transport boats from the internal lake into a boat basin and dredged channel which extends into Alligator Lake. It also included the installation of a boat ramp into the boat basin allowing increased access to Alligator Lake. No boat docks would extend into Alligator Lake.

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The acreage estimates for this proposal and detailed in the public notice differ because the applicant's consultants did not update their project narrative prior to the issuance of the public notice. The application stated the proposed work would require the dredging and filling of 9.2 acres of waters of the United States. Upon further analysis by the project engineer it was determined that the proposal included the dredging and filling of 7.97 acres of wetlands for the residential component of the project, the excavation of 0.89 acres of uplands for the boat basin and the dredging of a 1.23 acre access channel in Alligator Lake (i.e., not dredging 9.2 acres of Alligator Lake).

Alternative 3 (Currently proposed alternative): Alternative 3 differs from alternative 2 by eliminating 17 lots from wetlands. Wetland and surface water impacts are estimated at 4.84 acres and the total dredging within Alligator Lake is 0.526 acre. This alternative would require the excavation of 1.23 acres of uplands for a boat basin that will be part of Alligator Lake. The reduction of dredging within Alligator Lake was accomplished by two factors: 1) reducing the width of the proposed channel to allow for only one boat to pass through at a time; and 2) reducing the length of the channel. The applicant completed a bathymetric survey of the lake bottom, which identified sufficient depths could be reached without extending beyond 500-feet from the project site.

Alternative 4: (Developed by the Corps) Utilize on-site alternative 3 site plan which would impact 4.84 acres of wetlands and surface waters for residential development including stormwater management, but would not authorize any navigable access from the project site into Alligator Lake.

Alternative 5: (Developed by the Corps) Utilize on-site alternative 3 site plan which would impact 4.84 acres of wetlands and surface waters for residential development including stormwater management and the development of a boat ramp and associated dock from the project site into Alligator Lake. The Corps assumes the creation of a boat ramp within Alligator Lake would require the additional discharge of 0.5 acre of fill into Alligator Lake to facilitate construction of the boat ramp. Dredging of 0.526 acre of Alligator Lake would be required to reach sufficient water depth. No boat lift would be constructed from the internal lake to Alligator Lake.

Alternative 6: (Developed by the Corps) Utilize the on-site alternative 3 site plan which would impact 4.84 acres of wetlands and surface waters for residential development including stormwater management. This alternative would also include the construction of a multi-slip boat dock within Alligator Lake. No dredging or filling within Alligator Lake would be required.

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Alternative 7: (Developed by the Corps) Utilize the on-site alternative 3 site plan which would impact 4.84 acres of wetlands and surface waters and would require dredging a 0.526 acre channel in Alligator Lake. This plan would include excavating a boat basin with boat ramp and navigable channel within Alligator Lake, but would not include the proposed boat lift between the internal lake and Alligator Lake.

9.3 Analysis of alternatives for practicability: The no build alternative is not considered practicable as it would not allow for construction of the project and would not satisfy the overall project purpose. Off-site alternatives 2 and 3 are not considered practicable because they would not allow the applicant to create a residential development with boating access to the Alligator chain of lakes. Off-site alternative 1 is not considered practicable because it is not currently available for acquisition. The Corps has received an application to construct a residential development at off-site alternative 1 and has assigned the proposed action Department of the Army application number SAJ-2013-02938.

On-site alternative 4 is not considered practicable because it would not accomplish the overall project purpose of providing boating access to the Alligator chain of lakes.

On-site alternative 6 is not considered practicable because the use of a multi-slip boat dock would not provide sufficient boating access to Alligator Lake to meet the overall project purpose. The use of a multi-slip boat dock may not be consistent with local zoning and the riparian rights of the applicant. Additional coordination with Osceola County would be required. The use of a multi-slip boat dock would likely increase the use at existing public boat ramps causing overcrowding and congestion at the existing facilities.

9.3.1 Summary of alternative(s) that are practicable: On-site alternatives 1, 2, 3, 5, and 7 are considered practicable because they are capable of being constructed and could satisfy the overall project purpose.

9.4 Identification of the alternative that is the least environmentally damaging practicable alternative: On-site alternative 3 is the least environmentally damaging alternative (LEDPA). This alternative could be constructed by the applicant and it best satisfies the overall project purpose. The implementation of the boat lift utilizes existing technology to provide additional recreational opportunities on the Alligator chain of lakes while reducing traffic and congestion, which is expected to occur at the two existing public boat ramps on Alligator Lake as the population of Osceola County continues to expand.

On-site alternatives 1, 2, and 5 are not considered the LEDPA because they

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would impact more aquatic resources (wetlands and surface waters including Alligator Lake) than the currently proposed alternative (Alternative 3).

On-site alternative 7 was not considered the LEDPA because it results in the same amount of dredge and fill within waters of the United States (wetlands and surface waters) as on-site alternative 3, but did not allow the applicant to realize the entire development concept of transferring boats from the internal lake to Alligator Lake.

Evaluation Matrix for All Alternatives									
	Available for purchase	Dredge and fill in wetlands & surface waters (acres)	Dredging in Alligator Lake (acres)	Discharge of fill Alligator Lake (acres)	Provides navigable access to Lake	Meets overall project purpose	Logistics (utilities and zoning approved)	Practicable	LEDPA
Off-site Alternative 1	No	15+	0	0	No	No	No	No	No
Off-site Alternative 2	Yes	0	0	0	No	No	No	No	No
Off-site Alternative 3	Yes	5+	0	0	Yes	No	Yes	No	No
On-site Alternative 1	N/A	9.04	3.09	0	Yes	Yes	No	Yes	No
On-site Alternative 2	N/A	7.97	1.23	0	Yes	Yes	No	Yes	No
On-site Alternative 3 (Proposed Alternative)	N/A	4.84	0.526	0	Yes	Yes	Yes	Yes	Yes
On-site Alternative 4	N/A	4.84	0	0	No	No	No	No	No
On-site Alternative 5	N/A	4.84	0.526	0.5 acre fill for boat ramp	Yes	Yes	No	Yes	No
On-site Alternative 6	N/A	4.84	0	0	No	No	No	No	No
On-site Alternative 7	N/A	4.84	0.526	0	Yes	Yes	No	Yes	No

**10.0 Evaluation of the Section 404(b)(1) Guidelines:** Because the discharge is not covered by a general permit, the following sequence as described in the 404(b)(1) Guidelines will be followed (see 40 CFR 230.5).



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10.1 Examine whether there are practicable alternatives to the proposed discharge that would have less adverse impact on the aquatic ecosystem without having other significant adverse environmental consequences (Subpart B, 40 CFR 230.10(a)):

10.1.1 Based on the discussion in Section 9.0, there are no practicable alternatives to the proposed discharge which would have less adverse impact on the aquatic ecosystem, and the practicable alternative with the least adverse aquatic impacts does not have other significant adverse environmental consequences. Concur

10.1.2 Based on the discussion in Section 9.0, if the discharge is proposed in a special aquatic site and if the activity is not water-dependent, the applicant has clearly demonstrated that there are no practicable alternative sites that do not involve special aquatic sites. Concur

10.2 Candidate disposal site delineation (Subpart B, 40 CFR 230.11(f)): Each disposal site shall be specified through the application of these Guidelines.

Discussion: The disposal site is a jurisdictional wetland and/or surface water.

10.3 Potential impacts on physical and chemical characteristics of the non-living environment (Subpart C): See Table 1

Physical and Chemical Characteristics	N/A	No Effect	Negligible Effect	Minor Effect (Short Term)	Minor Effect (Long Term)	Major Effect (Significant)
Substrate					X	
Suspended particulates/turbidity			X			
Water			X			
Current patterns and water circulation			X			
Normal water fluctuations			X			
Salinity gradients	X					

Discussion: No discharge of fill material is proposed within Alligator Lake. The discharge of dredged or fill material into the disposal site will have negligible effect to current patterns and water circulation through changing the dimensions of the on-site wetland and re-routing of the existing on-site surface waters. The discharge would not obstruct flow or change the direction or velocity of water flow in the nearest traditional navigable water. The proposed action includes the

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implementation of a stormwater management system which will attenuate stormwater runoff within the action area. The proposed action is expected to result in a positive change of the chemical characteristic of water leaving the subject site based on cessation of citrus operations and removal of cattle from a majority of the property. The proposed action is not expected to result in a change to the physical characteristic of water leaving the site nor affect normal water fluctuations outside to the project area. The project if constructed would include the use of best management practices during construction in accordance with state and federal water quality standards. The disposal site is located in palustrine wetlands and does not include salinity gradients.

The proposed dredging would not be expected to adversely affect lake sediments, water quality, or induce the accumulation of muck. Shallow Florida lakes tend to fill-in as a natural occurrence due to vegetative growth, the accumulation of organic material, and the expansion and conversion of littoral zone to palustrine wetland. Dredging the current littoral zone habitat to -4 feet below low water conditions will remove vegetative growth, existing organic sediment, and a source of continual lake-generated organic input. It is acknowledged that the dredged area could require future maintenance dredging if sediment/organics accumulate in the channel, as is the natural process for Florida waterbodies.

The proposed dredge depth will preclude turbidity issues as boats navigate the channel. Additionally, treated stormwater from the internal lake will discharge to Alligator Lake through a control structure located near the boat basin

10.4 Potential impacts on the living communities or human uses (Subparts D, E, and F):

10.4.1 Potential impacts on biological characteristics of the aquatic ecosystem (Subpart D): See Table 2

Table 2						
Biological characteristics	N/A	No Effect	Negligible Effect	Minor Effect (Short Term)	Minor Effect (Long Term)	Major Effect (Significant)
Threatened and endangered species			X			
Fish, crustaceans, mollusk, and other aquatic organisms			X			
Other wildlife			X			

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Discussion: The subject wetlands have been disturbed by previous land management activities resulting in a substantially altered hydrologic regime. No fish or crustaceans were observed within the on-site surface waters or wetlands. No federally listed species were observed within the project site; however, the subject site contains suitable habitat for the federally listed eastern indigo snake and wood stork. With the inclusion of the Eastern Indigo Snake Protection Measures in any permit issued the proposed work would not have more than negligible effects to the eastern indigo snake. The purchase of federally approved wetland mitigation bank credits would compensate for the loss of suitable foraging habitat of the wood stork.

The dredging of a 0.526 acre channel within Alligator Lake would result in a change in bottom contours and removal of aquatic vegetation. No federally listed species are known to occur within Alligator Lake. The Corps consulted with the Florida Fish and Wildlife Conservation Commission (FFWCC) concerning the identification of potential adverse effects and none were identified.

See paragraph 14.2 for discussion on endangered species.

10.4.2 Potential impacts on special aquatic sites (Subpart E): See Table 3

Special Aquatic Sites	N/A	No Effect	Negligible Effect	Minor Effect (Short Term)	Minor Effect (Long Term)	Major Effect (Significant)
Sanctuaries and refuges	X					
Wetlands			X			
Mud flats	X					
Vegetated shallows			X			
Coral reefs	X					
Riffle pool complexes	X					

Discussion: Wetlands and surface waters would be permanently dredged or filled to facilitate construction of the proposed project. Vegetated shallows within Alligator Lake would be excavated. The applicant provided a functional assessment analysis to assess the functions that the waters of the United States (wetlands, vegetated shallows, and surface waters) provides, so that appropriate and sufficient compensatory mitigation could be provided to compensate for these lost functions. Overall, the proposed compensatory mitigation would compensate for impacts to wetlands and surface waters resulting from the proposed project. The subject site does not contain any sanctuaries or refuges, mud flats, coral

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reefs or riffle pool complexes. The work as proposed was determined to have negligible effects or were not applicable to this proposed action on special aquatic sites.

10.4.3 Potential impacts on human use characteristics (Subpart F): See Table 4

Table 4						
Human Use Characteristics	N/A	No Effect	Negligible Effect	Minor Effect (Short Term)	Minor Effect (Long Term)	Major Effect (Significant)
Municipal and private water supplies		X				
Recreational and commercial fisheries			X			
Water-related recreation			X			
Aesthetics			X			
Parks, national and historical monuments, national seashores, wilderness areas, research sites, and similar preserves		X				

Discussion: The subject site does not contain or contribute to parks, national and historical monuments, national seashores, wilderness areas, research sites, and similar preserves. The project area comprises a very small portion of the shoreline of Alligator Lake (approximately 350-feet) and the proposed action would provide recreational and boating access to Alligator Lake.

Alligator Lake provides recreational and commercial fisheries and water-related recreation year round. The existing canopy trees located north of the proposed dredge area and immediately adjacent to the lake are expected to remain in place maintaining a visual buffer from users and residents on Alligator Lake. Only aids to navigation are proposed to be installed within Alligator Lake and would not extend beyond existing docks to the south of the proposed channel.

The proposed action would provide additional recreational opportunities to residents of the subdivision and would not reduce existing recreational opportunities of the general public. Additional fishing pressure would occur on existing sportfish stocks within the Alligator chain of lakes but is not be expected to be detrimental to the fishery.

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The proposed work will require the use of potable water, but is not expected to impact the needs of the regional water supply network. The work as proposed was determined to have negligible effects, no effect or were not applicable to this proposed action on the human use characteristics.

- 10.5 Pre-testing evaluation (Subpart G, 40 CFR 230.60): The following information, as appropriate, has been considered in evaluating the biological availability of possible contaminants in dredged or fill material: See Table 5

Table 5	
Physical characteristics	X
Hydrography in relation to known or anticipated sources of contaminants	
Results from previous testing of the material or similar material in the vicinity of the project	
Known, significant sources of persistent pesticides from land runoff or percolation	
Spill records for petroleum products or designated (Section 331 of CWA) hazardous substances	
Other public records or significant introduction of contaminants from industries, municipalities, or other sources	
Known existence of substantial material deposits of substances which could be released in harmful quantities to the aquatic environment by man-induced discharge activities	

Discussion: The subject site is not known to contain contaminants. The Corps expects that the discharged dredged and fill material would be obtained from on-site excavation, an off-site sand mine, and/or from reshaping of the surface of the project site. The specific source(s) of off-site derived fill material is unknown at this time, the Department of the Army permit, if issued, would require the use of clean fill material compatible with existing soils (e.g., soil, rock, sand, marl, clay, stone, and/or concrete rubble). Since material obtained from an off-site source would be clean material and the fill disposal sites are not known to have contaminants, it is unlikely that contaminants would be release in association with the proposed discharges of fill material. Turbidity and erosion controls will be maintained during construction of the project, as required by the Corps' erosion control special condition, if a DA permit is issued, and by the state's Section 401 Water Quality Certification. Turbidity, erosion and stormwater controls would be maintained in the post-construction operation of the project, as required by the Section 401 Water Quality Certification.

It has been determined that testing is not required because the likelihood of contamination by contaminants is acceptably low and the material may be excluded from evaluation procedures.

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10.6 Evaluation and testing (Subpart G, 40 CFR 230.61): As a special condition of the permit all fill material placed within waters of the U.S. is required to be clean fill material free of any contaminants. Any fill material excavated on the subject site is not expected to carry contaminants and therefore will not require specific Chemical, Biological and/or Physical testing.

10.7 Actions to minimize adverse impacts (Subpart H):  
The following actions, as appropriate, have been taken through application of recommendations of 40 CFR 230.70 - 230.77 to ensure minimal adverse effects of the proposed discharge. See Table 6

Table 6	
Actions concerning the location of the discharge	X
Actions concerning the material to be discharged	X
Actions controlling the material after discharge	X
Actions affecting the method of dispersion	X
Actions affecting plant and animal populations	X
Actions affecting human use	X

Discussion: Any authorization issued by the Corps would include special conditions requiring the installation of erosion control features, the use of clean fill, the stabilization of all fill areas, protection measure for federally listed species, and the implementation of the proposed compensatory mitigation plan.

10.8 Factual Determinations (Subpart B, 40 CFR 230.11): See Table 7

Table 7						
Site	N/A	No Effect	Negligible Effect	Minor Effect (Short Term)	Minor Effect (Long Term)	Major Effect (Significant)
Physical substrate					X	
Water circulation, fluctuation and salinity			X			
Suspended particulates/turbidity			X			
Contaminants		X				
Aquatic ecosystem and organisms			X			
Proposed disposal site			X			

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Cumulative effects on the aquatic ecosystem			X			
Secondary effects on the aquatic ecosystem			X			

Discussion: The proposed action includes the discharge of fill in palustrine non-tidal wetlands and/or surface waters (Section 404 waters only) and excavation in non-tidal navigable waters (Section 10) of Alligator Lake which are evaluated in this document. Effects determinations of the characteristics described in sections 10.3 through 10.7 above did not result in a significant effect. Any permit issued would require the implementation of state and federal water quality standards as well as compensatory mitigation.

10.9 Findings of compliance or non-compliance with the restrictions on discharges. (40 CFR 230.10(a-d) and 230.12):

10.9.1 Based on the information above, including the factual determinations, the proposed discharge has been evaluated to determine whether any of the restrictions on discharge would occur. See Table 8

Subject	Yes	No
Is there a practicable alternative to the proposed discharge which would have less adverse impacts on the aquatic ecosystem, and does the alternative with less aquatic impacts have other significant adverse environmental consequences?		X
Will the discharge cause or contribute to violations of any applicable water quality standards?		X
Will the discharge violate any toxic effluent standards (under Section 307 of the Act)?		X
Will the discharge jeopardize the continued existence of endangered or threatened species or their critical habitat?		X
Will the discharge violate standards set by the Department of Commerce to protect marine sanctuaries?		X
Will the discharge cause or contribute to significant degradation of waters of the U.S.?		X
Have all appropriate and practicable steps (Subpart H, 40 CFR 230.70) been taken to minimize the potential adverse impacts of the discharge on the aquatic ecosystem?	X	

Discussion: Reference paragraph 9.0 for a discussion of alternative sites considered and the minimization measures proposed.

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**11.0 General Public Interest Review (33 CFR 320.4 and RGL 84-09):**

The decision whether to issue a permit will be based on an evaluation of the probable impacts, including cumulative impacts, of the proposed activity and its intended use on the public interest. Among those are: conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shore erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, consideration of property ownership, and in general needs and welfare of the people (Reference 33 CFR 320.4(a)). To the extent appropriate, the public interest review below also includes consideration of additional policies as described in 33 CFR 320.4(b) through (r).

11.1 All public interest factors relevant to the proposal, including cumulative effects, were considered and discussed below:

11.1.1 Conservation: None

Discussion: The proposed action would not affect existing conservation areas.

11.1.2 Economics: Beneficial Impacts

Discussion: Construction activities associated with the development will provide short term construction jobs to the area along with the purchase of tools, equipment and supplies to complete the project. The project will contribute to the tax base and support the local economy by the purchase of goods and commodities.

The Corps scope of review in land use decisions is limited to significant issues of overriding national importance, such as navigation and water quality (see 33 CFR 320.4(2)) and cannot make assessments related to property values.

11.1.3 Aesthetics: Negligible

Discussion: The proposed site plan, when compared to similar such developments in the area, is anticipated to have a negligible effect on the overall aesthetics of the area.

The proposed action would convert approximately 350-feet of Alligator Lake shoreline from undeveloped to open water and recreational. The existing canopy trees located north of the proposed dredge area and immediately adjacent to the lake are expected to remain in place maintaining a visual buffer from users and residents on Alligator Lake.



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By letter dated 3 August 2016, Osceola Board of County Commissioners (BCC), submitted a letter to the Corps stating they are strongly opposed to the proposed dredging into Alligator Lake and requested denial of the permit application. However, the applicant obtained approvals which include zoning and preliminary site plan approval on 6 January 2016 and final site plan approval 11 August 2016 from Osceola County BCC. The City of St. Cloud issued a Development Order on 18 July 2016.

The proposed action would contribute to increased urbanization of the area and an increased number of boats on Alligator Lake. The Corps recognizes this could be perceived as a negative aesthetic effect to long-time residents, where they have experienced fewer numbers of people in the surrounding area. The aesthetic change would presumably be acceptable to the project applicant/subject property owner and new property owners or they would not purchase in the area.

The proposed development would be constructed in phases which would limit the amount of boaters/recreators accessing Alligator Lake from the project site. Usership is expected to increase as each development phase is completed but full build out of houses with boat docks is not expected by the Corps. The Corps analyzed the existing conditions at Bellalago, a similarly designed boating community on Lake Tohopekaliga, and determined the number of actual boaters are significantly less than the number of homes with lake access. This determination is made based on the number of waterfront homes which do not have boat docks (i.e., approximately 63 percent do not have docks). Bellalago was authorized Department of the Army permit number SAJ-2003-01494(SP-EPB) and provides a lakefront community with boatlift access to Lake Tohopekaliga. The number of boat docks may have been affected by the downturned central Florida economy of 2008; however, during a recent inspection by the Corps on 13 October 2016 no new boat docks were under construction.

#### 11.1.4 Wetlands: Neutral as a result of mitigative action

Discussion: The functional loss of wetlands and surface waters as a result of the proposed fill activity will be compensated by acquisition of in-kind federally approved mitigation bank credits. The applicant will preserve all 3.65 acres of remaining on-site wetlands. The applicant will provide signs and physical barriers to keep residents out of the preserved wetlands. The applicant will place all remaining on-site wetland in a conservation easement granted to the SFWMD.

#### 11.1.5 Historic properties: None

Discussion: SHPO has reviewed the project site and determined no structures

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eligible for listing in the National Register of Historic Places would be impacted.

#### 11.1.6 Fish and wildlife values: Negligible

Discussion: The proposed activities would impact low quality wetlands which provide limited food and habitat to wildlife. The previous land management activities and adjacent development have decrease the quantity and quality of wildlife habitat within and adjacent to the proposed action. To reduce potential impacts to the federally listed Eastern Indigo Snake, the applicant will be required to implement the Eastern Indigo Snake Protection Measures during construction.

Fish and wildlife values were considered in the functional assessment used to calculate the amount of compensatory mitigation needed to offset the proposed loss of waters of the United States.

FFWCC evaluated the proposed action and did not provide any substantive conservation recommendations, minimization efforts, or objections to the proposed work.

#### 11.1.7 Flood hazards: None

Discussion: N/A

#### 11.1.8 Floodplain values: Negligible

Discussion: This project is located within Zone A, Zone AE, and Zone X as shown on the FEMA FIRM, Map Number 12097C-0280G, Revised 18 June 2013, and proposes to fill within the 100-year floodplain. The proposed action includes the creation of a 37 acre lake from uplands and relocation of existing surface waters. Total floodplain impacts of 10.96 acre-feet are based on: Flood Zone 1 = 4.13 acre-feet at 100-year flood elevation of 66.0 NAVD, Flood Zone 2 = 1.83 acre-feet at 100-year flood elevation of 67.0 NAVD, Flood Zone 3 = 0.37 acre-feet at 100-year flood elevation of 69.0 NAVD and Flood Zone 4 = 4.63 acre feet at 100-year flood elevation of 71.0 NAVD. Total floodplain compensating storage of 133.28 acre-feet will be provided in two floodplain compensating storage areas: Pond 1 (124.51 acre-feet for flood elevations above elevation 68.0 feet NAVD) and Alligator Lake Dredge Area (8.77 acre-feet for flood elevations below elevation 68.0 feet NAVD). The proposed action includes the implementation of floodplain compensation and would not result in a net increase of fill within the floodplain.

#### 11.1.9 Land use: Beneficial Impacts

Discussion: The proposed action would convert the agricultural site to a residential

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development. The changes in land use will provide economic benefits for the surrounding community.

By letter dated 3 August 2016, Osceola Board of County Commissioners (BCC), submitted a letter to the Corps stating they are strongly opposed to the proposed dredging into Alligator Lake and requested denial of the permit application. However, the applicant obtained approvals which include zoning and preliminary site plan approval on 6 January 2016 and final site plan approval 11 August 2016 from Osceola County BCC. The City of St. Cloud issued a Development Order on 18 July 2016.

Since the primary responsibility for land use decisions is held by state, local, and Tribal governments, the Corps scope of review in land use decisions is limited to significant issues of overriding national importance, such as navigation and water quality (see 33 CFR 320.4(2)). These issues are discussed below.

#### 11.1.10 Navigation: Beneficial Impacts

Discussion: The proposed action would not create undue interference with access to, or use of, navigable waters. The proposed action would create additional navigational opportunities within Alligator Lake and its associated chain of lakes via the creation of two boat ramps. One ramp is directly connected to Alligator Lake while the other is on the internal lake. Residents who own a residential lot abutting the internal lake would have access to the proposed boat lift which would transfer boats from the internal lake to Alligator Lake. The Corps does not expect more than 20 boaters to access the Alligator Lake boat ramp on any given day. Usage could increase on holidays.

The applicant has indicated the average time for one boat to be loaded onto the proposed lift, transported over the earthen berm and offloaded on the other side will be 15 minutes. Therefore a theoretical maximum of 4 boats per hour can access the lake. During the summer months, the average sunrise is 6:50 am and the average sunset is 8:13 pm. Therefore the average daylight time in a day is 13 hours and 23 minutes. If the boat lift was used continuously and at maximum efficiency for the full 13 hours and 23 minutes of daylight, then an estimated total of 53 boats could access Alligator Lake during daylight hours; this factor does not take into consideration that boats will also use the boat lift to return to the project site from Alligator Lake. The returning boats will impact the number of boats that could use the boat lift to gain access to Alligator Lake. Afternoon thunderstorms, seasonal fluctuations and a variety of other factors such as high temperatures will also limit the number of boaters per day. The confluence of these factors make it reasonable to assume that the maximum number of boaters gaining access to Alligator Lake from the boat lift would be substantially less than 53 per day.

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The second boat ramp is located on the east side of the community and will have six parking spaces for vehicles with trailers. As with the boat ramp located on the west side of the community, residences will have to offload their boats and then drive back to their lot once the six parking spaces are filled. The east boat ramp is located farther away from the lots so walking back and forth will be a greater inconvenience. This will likely limit the number of users of this ramp.

By providing residents with navigable access to Alligator Lake the proposed action is not expected to have an adverse impact on navigation within the Alligator chain of lakes.

#### 11.1.11 Shore erosion and accretion: Negligible

Discussion: Native vegetation outside of the proposed dredge area will remain undisturbed. The applicant would install aids to navigation including slow speed signs at the entrance of the proposed access canal which would reduce the potential of erosion at the project site.

#### 11.1.12 Recreation: Beneficial Impacts

Discussion: The Corps considered the boating carrying capacity of Alligator Lake to evaluate the anticipated boating experience. A detailed boating carrying capacity study was not completed because the Alligator Chain of Lakes remains in a relatively rural setting, there is minimal public access, and there appears to be sufficient capacity to allow for the current project. Future projects requesting access to the Alligator Chain of Lakes will require a detailed carrying capacity study, or an addendum to an existing study. The Corps completed a literature review of boating capacity studies completed in the past. The studies concluded a density range of 1 boat per 4-30 acres was acceptable depending on uses (fishing, water skiing, canoeing). A review of the Florida Department of Environmental Protection (FDEP) Division of Recreation and Parks, Visitor Carrying Capacity Guidelines suggests a range for optimum carrying capacity for water-based outdoor recreation activities of 1 boat per 5-20 acres. The Corps used a conservative estimate that 1 boat per 15 acres would represent a reasonable carrying capacity for Alligator Lake.

Considering Alligator Lake is 3,551 acres in size, a boating density of 1 boat per 15 acres suggests the carrying capacity would be 237 boats. A review of a 2016 Google Earth image suggests Alligator Lake has approximately 130 residential docks, with 5 or less being multi-slip for subdivisions/condos/hotels. Most docks did not appear to have boats moored at them or have boat houses. Some residential canals occur along the north end of the lake increasing the dockage by

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approximately 30 vessels. Only three public boat ramps provide access to Alligator Lake which would contribute approximately 20 vessels on average. In total, the existing docks and public boat ramps on Alligator Lake would result in the potential for 190 boats to have direct access to Alligator Lake.

Understanding that most of the docks do not have a boat moored at them and not all boaters on the lake would be out on the same day, it is appropriate to assume the addition of 73 boats (53 users of the lift and 20 users of the Alligator Lake boat ramp) from Vista Lakes would not exceed the acceptable carrying capacity range for water-based outdoor activities on Alligator Lake. As discussed above, in section 11.1.10, the time required to use the proposed boat lift will substantially limit the number of boats from Vista Lakes that can access Alligator Lake each day. The proposed action is not expected to result in a negative degree of user enjoyment or satisfaction.

Further consideration is given to the fact that the proposed action is a phased development which would not reach capacity for several years. Boat utilization would likely fluctuate based on buildout of the proposed action, the economy, and fuel prices.

The proposed action would provide for additional recreation opportunities on Alligator Lake and would not eliminate existing recreational opportunities of the general public. Additional recreational opportunities would also be provided by allowing navigation and fishing within the internal lake which provides access to Alligator Lake.

#### 11.1.13 Water supply and conservation: None

Discussion: The proposed work will require the use of potable water, but is not expected to impact the needs of the regional water supply network.

#### 11.1.14 Water quality: Neutral as a result of mitigative action

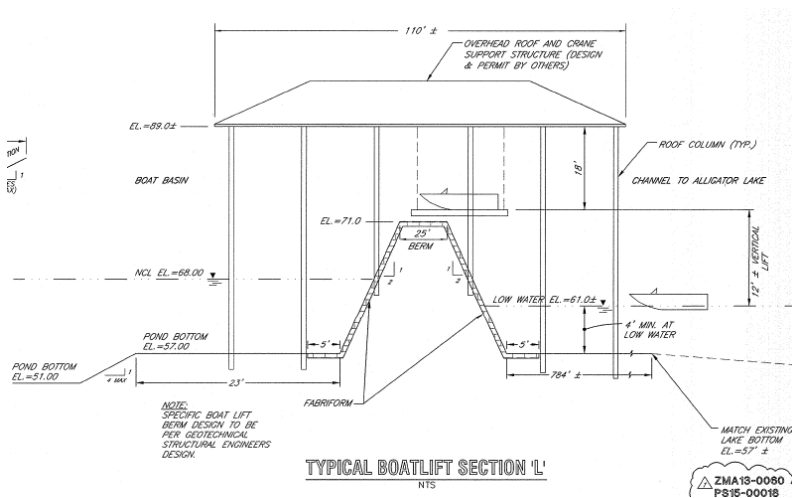
Discussion: According to the FDEP, Alligator Lake has been verified as impaired based on criteria and assessment methodologies in chapters 62-302 and 62-303, F.A.C., respectively. The lake has been listed impaired because of Mercury (in fish tissue). The causes are described as nonpoint source pollution.

In regard to nutrients and productivity, Alligator Lake is described as having relatively low nutrient concentrations during the 1990–2016 timeframe, with good visibility indicated by a Secchi disk depth ranging from 2-11 feet (<http://www.wateratlas.usf.edu/AtlasOfLakes/Florida/Lake.aspx?wbodyid=1000021#data>). The FDEP Trophic State Index (TSI) is a classification system designed

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to rate individual lakes, ponds and reservoirs based on the amount of biological productivity occurring in the water; classifications range from 1 to 100. During the same timeframe, the Alligator Lake TSI ranged from 17-53; July 2016 was 39. This TSI indicates good water quality in the oligotrophic to mid-eutrophic range, with an adequate amount of nutrients which generally support a fair amount of algae, aquatic plants, birds, fish, insects and other wildlife.

The proposed action includes the creation of a 37 acre internal lake which would be used for stormwater management and recreational navigation. The lake would be separated from Alligator Lake by an earthen berm with a minimum top elevation of 71.0 (see figure below). No untreated stormwater would discharge to Alligator Lake. This determination is supported by the fact that the control elevation of the internal lake is set at elevation 68 while peak stage is set at elevation 70.21. Finished floor elevations are required to be at elevation 70.31 and the minimum crown of the road is elevation 70. The perimeter canal will also be re-aligned and re-shaped which will reduce the discharge of sediments into Alligator Lake.



The use of turbidity barriers and silt fences are expected to eliminate or minimize issues with water quality in the adjacent surface water systems during construction. The applicant proposes to utilize a temporary mixing zone created from uplands to treat tail-water resulting from the proposed dredging. The mixing zone would only occur during dredging within Alligator Lake.

The applicant proposes the use of a portable hydraulic dredge comprised of a horizontal auger (cutter head) to dredge the access channel into Alligator Lake. The dredged material would be pumped into geo-tubes until dried and then

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disposed in uplands. The dredging would be performed in accordance with best management practices and state water quality certification standards.

According to the applicant the boat basin and channel would need to be maintained approximately every 10-15 years because of its location on the northwest corner of Alligator Lake. The dredged channel within Alligator Lake is limited to 0.526 acre and the boat basin excavated for uplands is 1.23 acres in size. Given the existing soil types within dredge and excavation areas, and limited size of the excavated and dredged areas in relation to the overall size of Alligator Lake (+/-3,551 acres), no adverse effects from turbidity and/or muck accumulation are expected as a result of construction and operation of the proposed project. No comments have been received from the U.S. Environmental Protection Agency.

The Clean Water Act assigns responsibility for control of non-point sources of pollution to the State of Florida (33 CFR 320.4(d)). By letter dated 15 January 1998, Governor of the State of Florida, under the authority in 33 U.S.C., Sections 1341 and 1362 (the Clean Water Act), and 40 CFR 121.1(e) (Federal Water Pollution Control Act), designated the FDEP Agency as the agency responsible for certifying compliance with applicable state water quality standards for federal licenses or permits issued by the Corps under Section 404 of the Clean Water Act, 33 U.S.C. 1344. That letter granted the FDEP the authority to issue, deny, or waive certification of compliance with water quality standards, the authority to identify categories of activities for which water quality certification is waived, and the authority to establish categories of State permits or other authorizations for which the issuance (or denial) of the permit or authorization constitutes a certification (or denial of certification) that the permitted or authorized activity complies with (or falls to comply with) applicable state water quality standards.

The proposed action has received water quality certification from the SFWMD (Permit No. 49-02458-P, issued 16 Sep 2016). The SFWMD Individual Permit Technical Staff Report indicates the applicant's pollutant loading calculations determined the proposed stormwater management system reduces the post-development loading of total phosphorous to levels below the loadings generated under the pre-development condition. Water quality treatment for one inch over the basin area is provided in the stormwater management system. The provided water quality treatment volume includes an additional 50% above the requirements as reasonable assurance that the project will not have an adverse water quality impact on the downstream receiving body (i.e., Alligator Lake). The water quality certification ensures the proposed action is designed to meet or exceed state and federal water quality standards. No adverse impacts to water quality are expected.

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The Corps considered the water quality conditions of Bellalago, a similar type project, (SFWMD permit number 49-01120-P), no water quality violations have been reported by the SFWMD.

#### 11.1.15 Energy needs: Negligible

Discussion: This project will result in energy consumption during construction and operation.

#### 11.1.16 Safety: Negligible

Discussion: The proposed earthen berm which would be constructed between the existing internal lake and Alligator Lake has been designed by a civil engineer and reviewed and approved by the SFWMD. The berm is currently being reviewed by structural and geotechnical engineers and will receive a building permit from Osceola County prior to construction. The cumulative review ensures the proposed earthen berm will be structurally sufficient.

Additionally, the boat carrying capacity numbers established in Sections 11.1.10 and 11.1.12 would not indicate the project will negatively affect boating safety on Alligator Lake.

The proposed action will contribute to increased traffic and congestion on area roadways. Increased congestion could result in traffic accidents. Osceola County and the State of Florida will likely implement traffic management controls to ensure public safety.

#### 11.1.17 Food and fiber production: None

Discussion: N/A

#### 11.1.18 Mineral needs: Negligible

Discussion: The proposed action, if authorized by this permit, could require considerable amounts of construction material such as sand, limerock, concrete, asphalt, etc. These mineral resources are expected to be readily available.

#### 11.1.19 Considerations of property ownership: Beneficial Impacts

Discussion: The property owners will benefit by realizing the full use of their property. The proposed action would provide access to navigable waters of the United States. No structures are proposed within Alligator Lake and aids to navigation markers would assist boaters entering and existing the proposed



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access channel. The proposed action would not create an undue interference with access to, or use of, navigable waters.

11.1.20 General needs and welfare of the people: Beneficial Impacts

Discussion: Increase in tax base and additional opportunities for employment. The proposed action would increase the amount of residential home units available within Osceola County which has been reported to be needed in this region.

11.2 The relative extent of the public and private need for the proposed structure or work: Public benefits include a temporary increase in the local tax base during construction. Additional public benefits will include an increase in available single family home units. Proposed action would satisfy the need identified by the applicant.

11.3 If there are unresolved conflicts as to resource use, explain how the practicability of using reasonable alternative locations and methods to accomplish the objective of the proposed structure or work was considered. The Corps received numerous objections related to land use, water quality, aesthetics, and dredging within Alligator Lake. The objections primarily result from perceived outcomes from adjacent property owners on Alligator Lake. The Corps surmises the resident's view of the proposed action as a competing use of the resource (Alligator Lake).

The proposed action has been planned and designed in accordance with the local, state, and federal water quality design standards; Chapter 373, Part IV, Florida Statutes. Water quality certification has been provided by the State of Florida and no objections were received from the federal resource agencies. The applicant has minimized impacts to waters of the United States to the extent practicable and proposed compensatory mitigation to ensure no net loss of waters of the United States. Based on the informal carrying capacity analysis, the Corps does not expect a change in boating safety. The use of alternative locations was considered, as discussed in section 9.0 of this document.

11.4 The extent and permanence of the beneficial and/or detrimental effects that the proposed work is likely to have on the public and private use to which the area is suited:

Detrimental effects are expected to be minimal and permanent. The loss of uplands, wetlands, and surface waters will result in the disruption of habitats utilized by avian and terrestrial species known to occur in the area. Terrestrial

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and avian species are expected to adapt and relocate to acceptable habitats. The use of compensatory mitigation will mitigate any long term detrimental effects.

**Beneficial effects are expected to be** minimal and permanent. The project is expected to provide a permanent benefit to the economic tax base of the area which provides benefits to both the public and private sector. Additional recreational opportunities to residents of the proposed action are expected to be permanent.

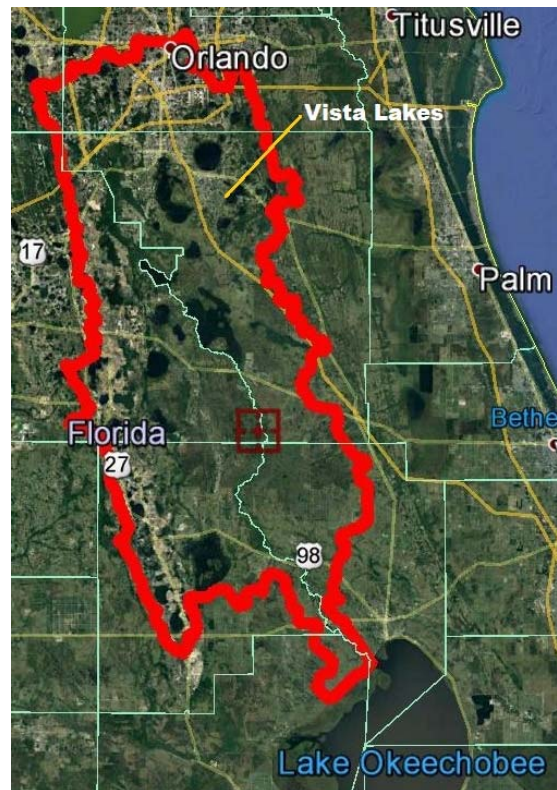
**12.0 Cumulative and Secondary Impacts:**

(40 CFR 230.11(g) and 40 CFR 1508.7, RGL 84-9) Cumulative impacts result from the incremental environmental impact of an action when added to all other past, present, and reasonably foreseeable future actions. They can result from individually minor but collectively significant actions taking place over a period of time. A cumulative effects assessment should consider both direct and indirect, or secondary, impacts. Indirect impacts result from actions that occur later in time or are farther removed in distance from the original action, but still reasonably foreseeable.

12.1 Identify/describe the direct and indirect effects of the proposed activity: The Corps considered loss of wetlands, upland and wetland habitat fragmentation, navigation, recreation, dredging within Alligator Lake, and water quality within Alligator Lake in its assessment of cumulative and secondary impacts.

12.2 The geographic scope for the cumulative effects assessment is: The 1,875,920 acre Kissimmee River Watershed (HUC 03090101; see adjacent figure).

12.3 The temporal scope of this assessment covers: The Corps considered a temporal scope of 34 years, from 2006 to 2040, because this time frame captures past, present, and reasonably foreseeable future actions resulting in environmental impacts within the geographic scope.



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12.4 Describe the affected environment: Approximately 23 percent of the Kissimmee River watershed area is comprised of aquatic resources.

(a) Receiving Waters/Physiography: The headwaters of this watershed originate within the City of Orlando, a highly urbanized area. Ultimately, rainfall within the City of Orlando can flow to Lake Okeechobee, the Everglades, and continue on to Florida Bay. This area is within the Eastern Flatwoods District ecoregion. Counties within the watershed include Orange, Osceola, Lake, Polk, Highlands, Okeechobee and Glades.

(b) Land Use: Historically, the Kissimmee River meandered approximately 103 miles from Lake Kissimmee to Lake Okeechobee through a 1-2 mile wide floodplain. The river and its floodplain consisted of a mosaic of wetland plant communities and supported a diverse group of waterfowl, wading birds, fish and other wildlife. Between 1962 and 1971, the river was channelized and two-thirds of the historical floodplain was drained. Excavation of the canal and placement of the spoil material destroyed one-third of the river channel. Implementation of the Kissimmee Flood Control project led to drastic declines in wintering waterfowl, wading bird and game fish populations, as well as loss of ecosystem functions. Land uses within the watershed are primarily agricultural, and include beef production, citrus, sod production and truck crops. Minimal sand and peat mining also occurs. Urban development occurs from the City of Orlando south to Lake Tohopekaliga. The Osceola County urban service area boundary extends to just south of Lake Tohopekaliga.

(c) Acres/Percent Wetland Area: It would appear that the NWI/USGS map underestimates the extent of waters of the U.S. (i.e., wetlands) in the Kissimmee Watershed. This is likely the result of inaccuracies in the NWI/USGS datasets, state and/or federal wetland restoration projects (e.g., the [Kissimmee River Restoration Project](#)), and compensatory mitigation projects (i.e., wetlands created and/or restored through mitigation banks, private/public mitigation projects conducted on private and/or state-owned lands) that have not been captured in the datasets. Approximately 23 % of the watershed area is aquatic resource. As of October 2006, in the Kissimmee River Cataloging HUC there were approximately 365,810 acres of palustrine vegetated wetlands, 10,000 acres of palustrine unvegetated, 5,744 acres of riverine habitat, and 196,316 acres of lacustrine systems.

(d) Outstanding Aquatic Resources: An Outstanding Florida Water, (OFW), is water designated worthy of special protection because of its natural attributes. This special designation is applied to certain waters, and is intended to protect existing good water quality. Typically, OFWs include areas managed by the state or federal government as parks, including wildlife refuges, preserves, marine

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sanctuaries, estuarine research reserves, certain waters within state or national forests, scenic and wild rivers, or aquatic preserves. Generally, the waters within these managed areas are OFWs because the managing agency has requested this special protection. Waters that are not already in a state or federal managed area, may be designated as "special water" OFWs if certain requirements are met including a public process of designation. OFW's within this watershed include Catfish Creek Preserve State Park, Lake Kissimmee State Park, Lake Arbuckle State Park, Crooked Lake, Prairie Lakes State Preserve, and Three Lakes Prairie Lakes. Additional OFW's may be included in the following conservation lands: Avon Park Air Force Range, Kissimmee Prairie Preserve State Park, Florida Forever Projects (Pine Island Slough, Bombing Range Ridge, Catfish Creek, Big Bend Swamp/Holopaw Ranch, Lake Hatchineha Watershed), Lake Wales Ridge State Forest, Kissimmee Chain of Lakes (Lake shoreline acquisition for Kissimmee River restoration project), Three Lakes Wildlife Management Area, and the Upper Lakes Basin Watershed. Other important conservation lands include Reedy Creek and large tracts of mitigation lands such as Disney Wilderness Preserve, London Creek/McKinney tracts, Florida Mitigation Bank, Reedy Creek Mitigation Bank, and the Habitat Restoration, Inc. mitigation site.

The proposed work would dredge and fill forested and non-forested wetlands within the project site, relocate existing surface waters, convert improved pasture, citrus grove, sod farm, and pine-mesic oak upland habitats to residential development and stormwater management features. Additionally, 1.23 acres of uplands and 0.526 acre of Alligator Lake would be dredged to create an access channel from the proposed development to deeper waters of Alligator Lake.

The subject wetlands, surface waters, and uplands provide benefits which include food chain production, general habitat and nesting, spawning, rearing and resting sites for aquatic or land species habitat, flood storage and attenuation, and water quality benefits.

The Alligator Chain of Lakes consists of Alligator Lake, Lake Center, Coon Lake, Trout Lake, Lake Lizzie and Brick Lake. All of these lakes are linked together by Central and South Florida (C&SF) federal flood control project canals. In addition to these lakes, the chain includes Live Oak Lake, Bay Lake, Sardine Lake, Buck Lake and Lake Pearl that are linked to the C&SF lakes through private canals. Two water control structures (S-60 and S-58) control water levels on the Alligator Chain. The two structures are jointly operated by a single regulation schedule. The S-60 water control structure located at the southern outlet of Alligator Lake is the primary structure. It allows water discharges through the C-33 Canal to Lake Gentry but it precludes navigation upstream and downstream from that point. The smaller S-58 water control structure located at the north end of Trout Lake generally acts as the drainage divide for flows through the Kissimmee Chain of

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Lakes. This is the case except under very high water conditions when water can be released northward through the C-32C Canal into the Lake Preston, Myrtle, and Joel Lake Management Area (LMA).

Historically, a surface water connection did not exist between the Alligator Chain of Lakes and Lake Gentry. The Alligator Chain discharged north into the Preston, Myrtle, and Joel LMA. The C&SF project excavated the canals that connect the Alligator Chain to Lake Gentry and Lake Gentry to Lake Cypress.

The Alligator Chain supports stable populations of bass, pan fish, and alligators. The lake is utilized for nesting and foraging by a variety of wading birds; however, no federally listed species have been observed.

- 12.5 Determine the environmental consequences: Corps permits for the 2006 – 2010 calendar year period authorized the discharge of fill in approximately 453.7 acres of wetlands within the watershed. Currently, the 1,875,920 acre Kissimmee watershed is characterized as having approximately 595,381 acres of aquatic resources. In *Florida 2060, A Population Distribution Scenario for the State of Florida* (August 2006. Zwick and Carr. GeoPlan Center at the University of Florida), the Kissimmee watershed is mapped as approximately 10 percent developed in the 2006 scenario. In the 2040 future development map, approximately 25 percent of the basin is projected to be developed and is clustered in the northern half of Osceola County, along the western edge of the watershed, and along SR 60.

The proposed residential development aspect of the proposed action is typical for the watershed. The proposed dredging and boat lift allowing navigable access to Alligator Lake are less common. The environmental consequences should be limited to the subject site since the project site has already been degraded by previous land management practices which include citrus production, nursery production, and active cattle grazing. The areas surrounding the subject site have been converted from native uplands and wetlands to residential development and agricultural lands. Wetlands have been fragmented, but still provide lifecycle functions. The stormwater management area meets current state and federal water quality standards and will be monitored annually to ensure water quality standards are not violated. The majority (1.23 acres) of the excavation/dredging would occur in disturbed uplands and 0.526 acre would occur within Alligator Lake.

The project includes the direct (4.84 acres) and secondary impacts to (0.25 acres) 5.09 acres of waters of the United States (wetlands and surface waters) with an estimated functional value of 2.33 UMAM units. The proposed dredging is limited

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to the minimum amount necessary to achieve the required access to navigation within Alligator Lake.

Development in the Kissimmee River watershed through 2040 will increase urban development from a current 283,948 acres to an estimated total of 520,907 acres. Approximately 26,500 acres of aquatic resources lay within this development envelope and would potentially be affected by this future growth. Based on the trend of 2006 – 2010 calendar year fill authorizations, the estimated extent of aquatic resources filled through the year 2040 would total approximately 10,900 acres. An estimated 584,481 acres of aquatic resources would remain through the year 2040.

Through the year 2040, it is expected that:

- Approximately 2.1% of current aquatic resource acreage would be filled due to Corps authorizations for fill in waters of the United States.
- Another 3% of current aquatic resources may experience secondary/indirect impacts (e.g., noise, light, traffic, and other anthropogenic effects).
- The urban envelope in Osceola County will expand almost 200% through 2040.
- Navigation pressure and recreational use of the upper Kissimmee River Chain of Lakes, including the Alligator Chain, will increase due to continued market demand for boating communities (such as Vista Lakes), increased recreational demand from increasing population, future lake access opportunities provided within Osceola County, and navigational access from Lake Okeechobee.

12.6 Discuss any mitigation to avoid, minimize or compensate for cumulative effects: The applicant has revised the proposed plans to reduce direct and indirect impacts to wetlands. The applicant proposed the purchase of palustrine credits from a federally approved mitigation bank to ensure no net loss of wetland functions. The mitigation bank is located within the same watershed as the subject site. Supporting mitigation banks conserves larger, more sustainable, tracts of land connected to the Kissimmee River corridor.

The applicant proposes to implement the Eastern Indigo Snake Protection Measures during construction and relocate all on-site gopher tortoise. The applicant would follow best management practices during site development which includes the use of turbidity controls. The applicant will monitor water quality within the proposed internal lake in accordance with their SFWMD permit.

Due to market demand for boating communities on Alligator Lake, Lake Tohopekaliga, and generally the Upper Kissimmee River Chain of Lakes, the

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Corps will require future navigation capacity studies on Section 10 waters (i.e., lakes) to establish lake carrying capacities for recreational and commercial boating activities. Such studies could not be required until future dredge and fill applications are received for projects where lake access is a component of the project purpose.

- 12.7 Conclusions: When considering the overall impacts that will result from this project, in relation to the overall impacts from similar past, present, and reasonably foreseeable future projects, the cumulative impacts are not considered to be significantly adverse. Compensatory mitigation will be required to offset the impacts to wetlands and wildlife. Stormwater management features will capture and treat surface water runoff which is not currently being treated. It is likely similar activities will be proposed in the future, and these will be subject to the appropriate review process at that time.

The applicant will monitor water quality standards within the internal lake and submit those results to SFWMD for analysis per conditions of the SFWMD permit. If the applicant or SFWMD identify a violation of water quality standards remedial actions will be taken to prevent long-term adverse effects.

The direct loss of wetlands due to fill, and resulting secondary effects, do not appear to reach a level of significance through the year 2040 in the Kissimmee River watershed. Approximately 95% of the current extent of aquatic resources will remain. The 240,000 acre loss of primarily agricultural and rangeland land use could affect general environmental concerns (e.g., habitat fragmentation, etc.), wildlife and listed species. However, this loss does not achieve significance since approximately 83% of the watershed, and upland/wetland habitats, will remain intact. The Kissimmee River, with corridor connections to other streams and abutting habitats, mitigation banks, and over 422,000 acres of public lands will remain to sustain wildlife and listed species into the future.

**13.0 Mitigation:**

- 13.1 Are project modifications needed to minimize adverse project impacts? (see 33 CFR 320.4(r)(1)(i)) No

- 13.2 Is compensatory mitigation required to offset environmental losses resulting from proposed unavoidable impacts to waters of the United States? Yes

If no, rationale:

- 13.3 Type and location of compensatory mitigation:

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13.3.1 Is the impact in the service area of an approved mitigation bank? Yes

If yes, does the mitigation bank have appropriate number and resource type of credits available? Yes

13.3.2 Is the impact in the service area of an approved in-lieu fee program? No

If yes, does the in-lieu fee program have the appropriate number and resource type of credits available? N/A

13.3.3 Selected compensatory mitigation type/location(s): See Table 9

Table 9	
Mitigation bank credits	X
In-lieu fee program credits	
Permittee-responsible mitigation under a watershed approach	
Permittee-responsible mitigation, on-site and in-kind	
Permittee-responsible mitigation, off-site and/or out of kind	

13.3.4 Does the selected compensatory mitigation option deviate from the order of the options presented in §332.3(b)(2)-(6)? No

If yes, provide rationale for the deviation, including the likelihood for ecological success and sustainability, location of the compensation site relative to the impact site and their significance within the watershed, and/or the costs of the compensatory mitigation project (see 33 CFR §332.3(a)(1)):

13.3.5 Is the proposed compensatory mitigation plan permittee-responsible? No

13.4 Amount of compensatory mitigation: The purchase of 2.3 palustrine federal credits from the Southport Ranch Mitigation Bank.

Rationale for required compensatory mitigation amount: The applicant completed a functional assessment using the Uniform Mitigation Assessment Method.



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ID	Type	impact acres	Location & Landscape Support		Water Environment		Community Structure		Delta	Functional Loss
			Pre	Post	Pre	Post	Pre	Post		
SW-1	513	0.44	4	0	4	0	4	0	0.40	0.18
SW-2	513	0.02	4	0	4	0	3	0	0.37	0.01
SW-3	surface water	1.04	4	0	5	0	4	0	0.43	0.45
SW-4	513	0							0.00	0.00
SW-5	513	0.88	5	0	6	0	5	0	0.53	0.47
	subtotal	2.38								1.11
wetland 1	643	0.31	4	0	5	0	4	0	0.43	0.13
wetland 2	643	0.06	4	0	5	0	4	0	0.43	0.03
wetland 3	643	0.25	4	0	5	0	4	0	0.43	0.11
wetland 4	615	0.44	5	0	4	0	5	0	0.47	0.21
wetland 5	621	0.01	4	0	4	0	4	0	0.40	0.00
wetland 6	615	0	0	0	0	0	0	0	0.00	0.00
wetland 7	615	0.56	5	0	4	0	5	0	0.47	0.26
wetland 8	615	0.83	6	0	4	0	5	0	0.50	0.42
wetland 9	lake littoral	0	0	0	0	0	0	0	0.00	0.00
	subtotal	2.46								1.16
Alligator Lake	Lake	0.526	7	7	7	7	6	4	0.07	0.04
Grand Total		5.366								2.3
Secondary Impacts										
wetland 7	615	0.25	5	4	4	4	5	4	0.07	0.02

**14.0 Compliance with Other Laws, Policies, and Requirements:**

14.1 Has a federal agency other than the Corps Regulatory office documented that the proposed project complies with applicable federal laws, to include Section 7 of the Endangered Species Act (ESA), the essential fish habitat (EFH) provisions of the Magnuson-Stevens Fishery Conservation and Management Act (MSA), and/or Section 106 of the National Historic Preservation Act (NHPA), as appropriate?  
No.

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**14.2 Section 7(a)(2) of the ESA:**

14.2.1 Known species/habitat present: Yes

14.2.2 Name of species and/or critical habitat considered: eastern indigo snake (*Drymarchon corais couperi*), wood stork (*Mycteria americana*), Florida scrub-jay (*Aphelocoma coerulescens*), Audubon’s crested caracara (*Polyborus plancus audubonii*), Everglades snail kite (*Rostrhamus sociabilis plumbeus*), Florida grasshopper sparrow (*Ammodramus savannarum floridanus*), and red cockaded woodpecker (*Picoides borealis*)

14.2.3 Effect determination(s): See Table 11

Table 11	
No effect; consultation not required	X
May affect, not likely to adversely affect; informal consultation	X
May affect, likely to adversely affect; formal consultation required	

Basis for determination(s): The project site does not contain habitat suitable for the Florida scrub jay, the Audubon’s crested caracara, Everglades snail kite, or the Florida grasshopper sparrow. The Corps has determined the proposal will have no effect to the Florida scrub jay, the Audubon’s crested caracara, Everglades snail kite, or the Florida grasshopper sparrow.

The project site contains pine trees capable of providing habitat for the red cockaded woodpecker. The closest documented occurrence of this species is approximately eleven (17) miles southeast of the subject property. No individuals of this species were observed on or adjacent to the project site during field reviews by the applicant’s consultant. The Corps has determined the proposal will have no effect to the red cockaded woodpecker.

The Corps completed an evaluation of the project based upon the August 13, 2013 updated addendum to the January 2010 North and South Florida Ecological Services Field Offices Programmatic Concurrence for use with the Eastern Indigo Snake. Use of the Key for the Eastern Indigo Snake resulted in the following sequential determination: A (The project is not located in open water or salt marsh.) > B (The permit will be conditioned for use of the Service’s standard Protection Measures for the Eastern Indigo Snake during site preparation and protection construction.) > C (There are gopher tortoise burrows, holes, cavities, or other refugia where a snake could be buried or trapped and injured during project activities.) > D (The project will impact less than 25 acres of xeric habitat (scrub, sandhill, or scrubby flatwoods) > E (Any permit will be conditioned such that all gopher tortoise burrows, active or inactive, will be evacuated prior to site

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manipulation in the vicinity of the burrow. If an indigo snake is encountered, the snake must be allowed to vacate the area prior to additional site manipulation in the vicinity. Any permit will also be conditioned such that holes, cavities, and snake refugia other than gopher tortoise burrows will be inspected each morning before planned site manipulation of a particular area, and, if occupied by an indigo snake, no work will commence until the snake has vacated the vicinity of proposed work. Preliminary surveys for the gopher tortoise determined that the subject property likely contains fewer than 25 potentially occupied gopher tortoise burrows.) = not likely to adversely affect (NLAA)

The Corps completed an evaluation of the project based upon the May 2010 South Florida Ecological Services Field Offices Programmatic Concurrence for use with the Wood Stork. Use of the Key for the Wood Stork resulted in the following sequential determination: A (Project impacts Suitable Foraging Habitat (SFH) at a location greater than 0.47 mile from a colony site.) > B (Project impact to SFH is greater in scope than one-half acre) >C (Project impacts to SFH within the CFA of a colony site) >D (Project impacts to SFH are within a Core Foraging Area.) > E (Project provides SFH compensation within the Service Area of a Service-approved wetland mitigation bank.) = NLAA. Based upon the NLAA determination for the Wood Stork no further coordination is required.

No designated critical habitat would be impacted by this project.

- 14.2.4 Was Section 7 ESA consultation required? No, project-specific consultation was not required.
- 14.2.5 Additional information: The FWS, through consultation with the Corps, provided Effect Determination Keys, 25 January 2010 and 13 August 2013 Update Addendum (Eastern Indigo) and May 2010 (Wood Stork), with specific criteria for the Service to concur with a determination of NLAA, that satisfies the FWS responsibilities under the Endangered Species Act of 1973, as amended (87 Statute 884: 16 U.S.C. 1531 et seq).
- 14.2.6 Based on a review of the above information, the Corps has determined that it has fulfilled its responsibilities under Section 7(a)(2) of the ESA.
- 14.3 Magnuson-Stevens Fishery Conservation and Management Act, EFH:** N/A, there is no essential fish habitat in this district's area of responsibility
- 14.3.1 Is EFH present in the project area? No
- 14.3.2 EFH species or complexes considered:

Effect determination:

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Basis for determination:

14.3.3 Date EFH assessment completed by Corps and transmitted to National Marine Fisheries Service (NMFS)

Summary of NMFS EFH comments:

Corps' response to NMFS:

14.3.4 Additional information:

14.3.5 Based on a review of the above information, the Corps has determined that it has fulfilled its responsibilities under the MSA.

**14.4 Section 106 of the NHPA:**

14.4.1 Known cultural resource sites present and/or survey or other additional information needed? No

14.4.2 Identify cultural resource sites(s): N/A

Effect Determination(s): See Table 12

Table 12	
No potential to cause effects; consultation not required	X
No effect; consultation required	
No adverse effect; consultation required	
Adverse effect; consultation required	

Basis for determination(s): The SHPO responded to the Corps request for consultation and is the opinion of SHPO that the proposed undertaking is not likely to have an effect on historic properties.

Additionally, use of the Jacksonville District Regulatory Division Section 106 Key Dated March 2013 resulted in the following sequential determination: 1 > 2 “No Potential to Cause Effect”. This determination is based on the fact that the subject site has been subjected various types of agricultural practices which have manipulated the soils, the site has been surveyed by an archaeologist who identified one historic structure which was determined to be ineligible for listing, on the National Register of Historic Places. Little likelihood exists for the proposed project to impinge upon a historic property. National Historic Preservation Act (NHPA) concerns will be addressed by the placement of special conditions in any

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permits issued advising Permittees how to proceed should unexpected cultural resources be encountered.

14.4.3 Was Section 106 NHPA consultation required? Yes

Date consultation initiated: 26 May 2016

Date consultation completed: 23 June 2016

14.4.4 Additional information: It is the opinion of this Florida Department of State, Florida State Historic Preservation Officer that the proposed project is unlikely to affect historic properties. However, the permit, if issued, should include the following special condition regarding unexpected discoveries: If prehistoric or historic artifacts, such as pottery or ceramics, projectile points, dugout canoes, metal implements, historic building materials, or any other physical remains that could be associated with Native American, early European, or American settlement are encountered at any time within the project site area, the permitted project shall cease all activities involving subsurface disturbance in the vicinity of the discovery. The applicant shall contact the Florida Department of State, Division of Historical Resources, Compliance Review Section at (850)-245-6333. Project activities shall not resume without verbal and/or written authorization. In the event that unmarked human remains are encountered during permitted activities, all work shall stop immediately and the proper authorities notified in accordance with Section 872.05, Florida Statutes.

14.4.5 Based on a review of the above information, the Corps has determined that it has fulfilled its responsibilities under Section 106 of the NHPA.

#### **14.5 Tribal Trust Responsibilities:**

14.5.1 Was government-to-government consultation conducted because proposed activity requiring DA authorization has the potential to significantly affect protected tribal resources, tribal rights (including treaty rights) and/or Indian lands or because consultation was requested? No

If project-specific government-to-government consultation was conducted, provide a summary of the consultation and findings: N/A

14.5.2 Based on a review of the above information, the Corps has determined that it has fulfilled its tribal trust responsibilities.

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**14.6 Section 401 of the Clean Water Act – Water Quality Certification (WQC):**

14.6.1 Is a Section 401 WQC required? Yes

14.6.2 Type of certification: Individual

14.6.3 Date of individual WQC decision, if applicable: 16 September 2016

**14.7 Coastal Zone Management Act (CZMA):**

14.7.1 Is a CZMA consistency concurrence required? Yes

14.7.2 Type of consistency concurrence: Individual

14.7.3 Date of individual CZMA consistency concurrence, if applicable: 16 September 2016

**14.8 Wild and Scenic Rivers Act:**

14.8.1 Is the project located in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a “study river” for possible inclusion in the system? No

14.8.2 Based on a review of the above information, the Corps has determined that it has fulfilled its responsibilities under the Wild and Scenic Rivers Act.

**14.9 Effects on Federal Projects (33 USC 408):**

14.9.1 Does the project require permission under Section 14 of the Rivers and Harbors Act (33 USC 408) because of potential for modifications to a federal project? No, There will be no effect to federal projects.

**14.10 Corps Wetland Policy (33 CFR 320.4(b)):**

14.10.1 Does the project propose to impact wetlands? Yes

14.10.2 Based on the public interest review herein, the beneficial effects of the project outweigh the detrimental impacts of the project.

**14.11 Other (as needed):** N/A

**15.0 Special Conditions:**

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15.1 Special conditions required? Yes

15.2 Required special condition(s):

- a) Reporting Address: For compliance
- b) Commencement Notification: For compliance
- c) Agency Approval: Notification if changes are made
- d) Post Permit: For compliance
- e) Wetland Avoidance: For compliance
- f) Cultural Resources/Historic Properties: Protection of resources
- g) Erosion Control: Protection of adjacent surface waters and wetlands
- h) Clean Fill: Protection of groundwater and surface waters
- i) Indigo Snake Standard Protection Measures: Protection of Listed Species
- j) Mitigation: Compensate for loss of wetlands
- l) As-built Certification by Engineer: For compliance

**16.0 Findings and Determinations:**

16.1 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.

16.2 Presidential Executive Orders (EO):

16.2.1 EO 13175, Consultation with Indian Tribes, Alaska Natives, and Native Hawaiians: This action has no substantial effect on one or more Indian tribes, Alaska or Hawaiian natives.

16.2.2 EO 11988, Floodplain Management: Alternatives to location within the floodplain, minimization and compensatory mitigation of the effects were considered above.

16.2.3 EO 12898, Environmental Justice: The Corps has determined that the proposed project would not use 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.

16.2.4 EO 13112, Invasive Species: There are no invasive species issues involved in

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this proposed project. Nuisance species such as cattail, primrose willow, and torpedo grass are known to occur within Alligator Lake. Three public boat ramps already exist on Alligator Lake, the addition of the boat lift and boat ramp is not expected to result in a single point introduction of nuisance and exotic species. The proposed stormwater management lake will be managed to reduce the growth and spread of nuisance vegetation to ensure sufficient surface water management occurs. This management would further reduce the likelihood of nuisance and exotic vegetation being spread to Alligator Lake.

- 16.2.5 EO 13212 and EO 13302, Energy Supply and Availability: The proposal is not one that will increase the production, transmission, or conservation of energy, or strengthen pipeline safety.
- 16.3 Findings of No Significant Impact: 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.
- 16.4 Compliance with the Section 404(b)(1) Guidelines: Having completed the evaluation above, I have determined that the proposed discharge complies with the Guidelines, with the inclusion of the appropriate and practicable special conditions to minimize pollution or adverse effects to the affected ecosystem.
- 16.5 Public interest determination: Having reviewed and considered the information above, I find that the proposed project is not contrary to the public interest.



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**Prepared By:**

\_\_\_\_\_ **Date:** 18 January 2017

**Andrew W. Phillips**  
**Project Manager**

**Reviewed By:**

\_\_\_\_\_ **Date:** 18 January 2017

**Irene F. Sadowski**  
**Chief, Cocoa Permits Section**

**Approved By:**

\_\_\_\_\_ **Date: 18 January 2017**

**for Jason A. Kirk, P.E.**  
**Colonel, U.S. Army**  
**District Commander**