



United States Department of the Interior



FISH AND WILDLIFE SERVICE
South Florida Ecological Services Office
1339 20th Street
Vero Beach, Florida 32960

May 24, 2018

Colonel Jason A. Kirk
U.S. Army Corps of Engineers
Jacksonville District
701 San Marco Blvd.
Jacksonville, FL 32207

Service CPA Code: 04EF2000-2015-CPA-0237
Service Consultation Code: 04EF2000-2015-I-0434
Corps Application Number: SAJ-2004-01424 (MAO-SP)
Date Received: May 5, 2015
Project: SLD Landfill, Inc.
Applicant: SLD C&D Landfill Group II
Excavation
County: Charlotte

Dear Colonel Kirk:

The U.S. Fish and Wildlife Service (Service) has reviewed the U.S. Army Corps of Engineers' (Corps) request to initiate consultation on the SLD Landfill, Inc. project (Project) dated May 5, 2015. The Corps has determined the Project may affect, but is not likely to adversely affect the federally endangered Florida bonneted bat (*Eumops floridanus*) (FBB), red-cockaded woodpecker (RCW) (*Picoides borealis*) and federally threatened Florida scrub jay (*Aphelocoma coerulescens*), eastern indigo snake (*Drymarchon corais couperi*), and wood stork (*Mycteria americana*). The bald eagle (*Haliaeetus leucocephalus*) is also common in the area because of the proximity of the adjacent landfill, and foraging resources associated with Charlotte Harbor and other borrow lakes in the area. The application indicates that two bald eagle nests are located more than ¾-mile from the site and that eagles have been observed roosting on the boundaries of the adjacent landfill. This letter is submitted in accordance with Section 7 of the Endangered Species Act of 1973, as amended (ESA) (87 Stat. 884; 16 U.S.C. 1531 *et seq.*), the Fish and Wildlife Coordination Act (FWCA) of 1958, as amended (48 Stat. 401; 16 U.S.C. 661 *et seq.*) the Bald and Golden Eagle Protection Act (BGEPA) (16 U.S.C. 668(a); 50 CFR 22) and the Migratory Bird Treaty Act (MBTA) (16 U.S.C. 703-712).

PROJECT DESCRIPTION

As described in a Corps Public Notice dated May 5, 2015, the applicant was seeking authorization for the excavation of 127,388 cubic yards and fill of 8,446 cubic yards of material in wetlands for the expansion of an existing landfill. The excavated material would be used for top cover at a functioning adjacent landfill. Approximately 2.285 acres (ac) of palustrine forested wetlands would be filled and 6.13 ac of palustrine forested wetlands would be

excavated. Impacts described as “temporary” total approximately 1.143 ac for construction of temporary roads. Acreage figures for impacts to uplands are not provided in the application received from the Corps. The site plan also included an 8-9-ac “Conceptual Flowway” associated with the Charlotte Harbor Flatwoods Initiative (CHFI) restoration project. The Project site is located in Section 31, Township 42 South, Range 24 East, Punta Gorda, Charlotte County, Florida.

The Public Notice indicates that the 224.59-ac Project site consists of 131.89 ac of wetlands and 92.7 ac of uplands, primarily hydric and mesic flatwoods (approximately 214 ac of forest with open overstory) with varying degrees of exotic plant invasion. Site vegetation consists of slash pine (*Pinus elliotti*), gallberry (*Ilex glabra*), Melaleuca (*Melaleuca quinquenervia*), staggerbush (*Lyonia ferruginea*), saw palmetto (*Serenoa repens*), wax myrtle (*Myrica cerifera*), primrose willow (*Ludwigia microcarpa*), and broomsedge (*Andropogon virginicus*). The Project site is located south of the SLD Zemel Road Construction and Demolition Debris Disposal and Recycling Facility, west of U.S. 41, and east and north of the 15,014-acre Yucca Pens unit of the 80,772-ac (125-square mile) Fred C. Babcock/Cecil M. Webb Wildlife Management Area (Babcock/Webb WMA) managed by the Florida Fish and Wildlife Conservation Commission (FWC) for 77 years.

FISH AND WILDLIFE RESOURCES

Charlotte Harbor Flatwoods Initiative

The applicant’s consultants and engineers have participated in discussions by local, state, federal and non-governmental environmental protection groups regarding a regional restoration proposal, the CHFI (Enclosure). The CHFI consists of an interagency group that includes the FWC, the Florida Department of Environmental Protection (FDEP), two (South and Southwest) Water Management Districts, Charlotte and Lee Counties, the city of Cape Coral, the Charlotte Harbor National Estuary Program, the Florida Department of Transportation, the Conservation Foundation of the Gulf Coast, the Trust for Public Land, and the Conservancy of SW Florida; as well as the Corps, Service, U.S. Geological Survey (USGS) and the Natural Resource Conservation Service (NRCS).

Beginning notably in the 1970s, active land and water management strategies for farming and cattle grazing, and more recently the development of residential communities and transportation corridors have variously, and with incremental effect, resulted in the substantial reduction of wet season surface water flows westward from, and the consequent trapping of water on, the Babcock/Webb WMA. The reduced surface water flows downstream of earthen berms and diversion canals, Interstate 75, US 41, and two railroad corridors have collectively caused wetland habitat degradation and function losses through flooding and dewatering in the Project area and the Charlotte Harbor Flatwoods and Yucca Pens units of Babcock/Webb WMA (SFWMD 2015a).

Downstream (west and southwest of the Project site), a key component of the overall initiative is restoration of tidal creeks within the watershed that flow into Charlotte Harbor. These tidal creeks are essential fish habitats for snook (*Centropomus undecimalis*), redfish (*Sciaenops ocellatus*), and tarpon (*Megalops atlanticus*). Recreational fishing in the harbor serves as an integral economic engine for the regional area. Water quality, quantity, and attaining the correct timing of water to the tidal creeks are significant elements in tidal creek restoration and preservation efforts, as well as the ability to maintain these connections, or the reconnection with creeks that have been bisected from the watershed (SFMWD 2015b).

In order to allow seasonal flows from the main unit of the Babcock/Webb WMA on the east side of U.S. 41, I-75, and railroad right-of-ways to reach the drained Yucca Pens and Charlotte Harbor Flatwoods Units of the WMA west of these linear facilities, re-construction of historical flowways (shallow sheetflow of freshwater) is necessary. These reconstructed flowways would alleviate high water conditions in the southwest corner of the main unit of the Babcock-Webb WMA, restore seasonal hydrology to the hydric flatwoods on the western Units of the WMA, reduce peak discharges from man-made canals from west of I-75 to tidal waters in Matlacha Pass by diverting surface water flows through historic wetlands and sloughs and move water through tidal creeks to Charlotte Harbor, one of 28 watersheds in the National Estuary Program. Portions of this project were originally proposed by the Corps and the SFWMD as the Yucca Pens Restoration Project in the Southwest Florida Comprehensive Watershed Plan (Corps 2016), which included a Corps value-engineering assessment.

If designed and implemented properly, a shallow, wider northeast to southwest flowway and spreader on the Project site location offers a unique opportunity to offer critical regional restoration opportunities on a landscape-scale project. This project potentially contributes opportunities for wetland restoration and state and federal listed species conservation and restoration across water management district and county boundaries.

In response to a Corps Request for Additional Information (RAI), the applicant provided additional information and a new site plan (to remove Lake 3) on May 4, 2016. This response discussed wetland impact minimization and cost-benefit ratios of the excavation plan and represented a 3.939 ac (41 percent) reduction in wetland and other surface waters impacts. The revised plan impacted 5.619 ac of wetlands (0.931 ac of wetland fill, 3.545 acres of wetland excavation, and 1.143 ac of temporary wetland fill).

The Service also discussed potential modifications to the Project with the applicant's environmental consultants (W. Dexter Bender and Associates [WDBA]) in 2015, members of the CHFI committee (June 2, 2015, September 10, 2015, and September 13, 2016), and the Corps on August 25, 2016 and April 3, 2017; that would serve to accomplish a wider restoration goal and potentially mitigate listed species and wetland issues on the Project site. On December 7, 2016, we provided the applicant and Corps with recommendations based on discussions referenced above that would effect these goals. These recommendations included the partial relocation of mining operations which are primarily located on "uplands" on the project site further to the north in order to effect a broader, shallower "Flowway" on the southern portion of the site. The

“Flowway” could be included in the future in the regional mitigation strategy for the CHFI project. We originally recommended that the Corps provide the applicant with on-site wetland mitigation credit for this “Flowway” and recommended that a perpetual conservation easement and long-term management plan for the southern portion of the site be provided to the Service and FWC. This larger conservation area would be intended to address remaining project listed species issues for the site. On April 3, 2017, we met with the applicant’s consultant and engineers (Craig Smith of WDBA, Gary Bayne of SW Engineering and Design [SED]) Corps (Tunis McElwain and Stephen Fleming), and the Florida Department of Environmental Protection (FDEP)(Patricia Clune) to discuss the conservation area, the Corps 404 vs. the FDEP mining permit, and updates needed to listed species surveys, particularly for the RCW and FBB.

Although there was general agreement that the southern 150-ac portion of the 225-ac site was critical to the CHFI “Flowway”, the Corps was reluctant to consider the conservation area for some type of future unspecified mitigation credit or banking under their mitigation banking guidance. The applicant’s representatives were hesitant to agree to a long-term management plan in the absence of mitigation credit. The Service raised concerns about effects of mining on federally listed species in the adjacent conservation area and surrounding areas as well as the effects of mining pits on adjacent but indirectly affected wetlands. In discussions with the applicant, Corps and FDEP, the applicant’s representatives agreed that it would be acceptable for FDEP to hold a conservation easement on the conservation area as a condition of their mining permit in recognition of a future opportunity to “construct the CHFI “Flowway”, conserve site wetlands, and reduce effects on federally listed species, including the FBB, RCW, wood stork, and EIS.

Therefore, as part of the Project commitments to reduce the effects of the Project on wetlands and Florida bonneted bat habitat, the Applicant has agreed to place the undeveloped freshwater wetlands and uplands area (approximately 150 ac shown on Exhibit A [Enclosure 2]) under Conservation Easement with the FDEP. The Applicant has further agreed that the referenced area will be made available to the FWC and SFWMD for a potential future “Flowway” associated with the Charlotte Harbor Flatwoods project. The Applicant will not be responsible for any maintenance activities (i.e. exotic vegetation treatment) within the Conservation Easement area and will not be responsible for funding or for mitigating any impacts associated with the “Flowway.” The Conservation Easement with reference to the “Flowway” will be added as a permit condition to the existing FDEP mining permit and the Corps permit and will be recorded within 60 days of FDEP permit issuance. A copy of the FDEP permit condition and a record of the Conservation Easement will be provided to the Corps and the Service. The Corps and Service will be provided with third party enforcement rights for the Conservation Easement area. The exact design and location of the “Flowway” has not been assessed by the Service. The Service would likely favor a larger, shallower “Flowway” over any narrow channel based on wetlands and listed species impacts.

The recommended FDEP and Corps permit language agreed to by the applicant and the Service is as follows:

- 1) A Conservation Easement (with third party enforcement rights granted to the Corps and Service) will be provided for the 150± ac shown in Exhibit A (Enclosure 2). The primarily freshwater wetland area may be used in the future for a potential “Flowway” associated with the Charlotte Harbor Flatwoods Initiative project. The Applicant will not be responsible for any maintenance activities (i.e. exotic vegetation treatment) within the Conservation Easement area and will not be responsible for funding or for mitigating any impacts associated with the “Flowway.”

THREATENED AND ENDANGERED SPECIES

Initial listed species surveys were performed on the site on January 16 and 21, 2014, some and in January 2016 for a 19-ac “Phase 3” site. At the request of the Service per letter dated December 7, 2016, and per methodologies agreed to in April and May of 2017; additional wildlife surveys were performed for foraging RCW, FBB cavity trees, and beautiful pawpaw (*Deeringothamnus pulchellus*) from April 17-May 8, 2017. FBB acoustic surveys were completed in June 2017.

Florida scrub jay

In our letter to the Corps dated December 7, 2016, the Service advised the Corps that the project would have “no effect” on the Florida scrub jay based on a determination that the Project was not located in Florida scrub jay habitat.

Red-cockaded woodpecker, Bald eagle, and Beautiful pawpaw

In our letter to the Corps dated December 7, 2016, the Service indicated that specific wildlife survey information for the site was required to concur with the Corps determination of “may affect, but is not likely to adversely affect” the RCW and for additional determinations regarding the location of bald eagle nests near the site and the presence of the federally endangered beautiful pawpaw on the site. The applicant provided this additional survey information on May 9, 2017. Surveys for RCW cavity trees and a nesting season forage survey were negative. Bald eagles were noted as foraging on site, but will likely be more attracted to forage opportunities associated with the open borrow areas during and after construction. Therefore, the Service concurs with the Corps’ “may affect but not likely to adversely affect” determination for the RCW and has no further comment on impacts to bald eagles which are not nesting on the site. The beautiful pawpaw was not documented on the site therefore the Service has no further comment on this endangered species.

Eastern indigo snake and wood stork

On May 21, 2018, the Corps notified the Service that they had made a determination of “may affect, but is not likely to adversely affect” based on the *Eastern Indigo Snake Programmatic Effect Determination Key* (Service 2017), and implementation of the *Standard Protection Measures for the Eastern Indigo Snake* (Service 2013a). Additionally, the Corps provided a

determination of “may affect, but is not likely to adversely affect” for the wood stork based on the *Wood Stork Programmatic Effect Determination Key* found in the South Florida Programmatic Concurrence-Wood Stork [Service Consultation Code 41420-2007-I-0964 (Service 2010)]; based on the sequential determination of A>B>C>D “NLAA”. The Service concurs with these determinations.

Florida bonneted bat

The project is partially located inside a FBB focal area (Service 2013b) and is included in areas anticipated to be part of the Service’s FBB consultation area based on best available science provided to the Service. The site contains forested habitat types and open wetland forage that have been documented as FBB habitat and is located adjacent to a significant state WMA (Babcock/Webb) that supports one of the most documented FBB populations in South and Central Florida. In their letter to the Service dated May 5, 2015, the Corps concluded that the proposed project “may affect but is not likely to adversely affect” the FBB. However, no substantive information was provided in the notice to support this effect determination. In our letter dated December 7, 2016, the Service requested additional information to substantiate this determination, including specific FBB acoustic and peeping (scoping) surveys of cavity trees on the site.

In April of 2017, the Service and applicant’s environmental consultant (WDBA) agreed to a specific methodology for additional listed species surveys on the site which included a search for potential FBB cavity trees. WDBA provided additional survey results (April 5 and April 17-May 8 [RCW forage survey]) in a letter to the Service dated May 9, 2017. Based on the May 9, 2017, listed species surveys which identified potential FBB cavity trees, and survey methodologies approved by the Service on April 5 and May 24, 2017, additional FBB acoustic surveys were conducted. On April 5, 2017, linear overlapping pedestrian transects were traversed across 75.10 ac of the property directly impacted by the two proposed borrow pits and a temporary road area. A total of nine dead trees (snags) containing potential FBB cavities were identified in the 116.5- ac pedestrian transect survey area. An additional 27 snags containing potential FBB cavities were observed elsewhere on the overall property during the RCW foraging survey. Of those, only two were located within the footprint of the proposed borrow pits. The remaining seven snags were located on state-owned lands to the west (two snags), within the existing preserve for the C&D landfill to the north (three snags), and on the subject property (two snags). The potential roost cavities located in the two snags within the proposed excavation areas and the one snag adjacent to the temporary access road were scoped and no evidence of FBB or any species of bats was observed.

The acoustic survey results and methodology provided to the Service on June 21, 2017, were conducted from May 31 to June 5, 2017, and included five acoustic stations, two of which were located within the proposed mining pit areas. Stations were chosen based on available roost cavities. Full-spectrum and zero-crossing bat detectors used included: Song Meter SM2BAT+ with SMX-US Ultrasonic Microphones and Song Meter SM3BAT with SMM-U1 Ultrasonic microphones (Wildlife Acoustics, Inc.); Anabat SD1, Anabat SD2, and Anabat II (Titley

Scientific, Ballina, New South Wales, Australia), and a D500X Ultrasound Detector/Recorder (Pettersson Elektronik AB, Uppsala, Sweden). Microphones were attached to detectors via cables and horizontally mounted on 12 to 15± feet tall poles. Microphones were oriented towards areas that increased the likelihood of high quality call recording (e.g., forest canopy openings, road corridors with open canopies, ponds, wetlands). Monitoring began at sunset (8:16 pm) and continued to record bat vocalizations until sunrise (6:34 am) for six nights at each station. Less than 1% (21 calls out of 8,072) were identified by KPro software as potential FBB calls. Upon manual identification by a biologist (Paul Owen, WDBA) trained in acoustic bat identification, none of the potential FBB calls were considered to be indicative of FBB, but were identified as the northern yellow bat (*Lasiurus intermedius*), Seminole bat (*Lasiurus seminolus*), or Brazilian free-tailed bat (*Tadarida brasiliensis*).

The Project will result in the conversion of approximately 77 ac of potential FBB habitat. Although it does not appear that the Project site is currently being used for FBB roosting, and acoustic surveys indicate a lack of FBB forage activities on the site; the foraging habitat on site is consistent with habitat utilized by FBB on public lands adjacent to the Project site. FBB may also be attracted to the site by forage opportunities associated with the open water availability upon Project completion. In one study using GPS-satellite tags at Babcock-WMA, researchers found that most FBB locations were within one mile of the roost (point of capture) (Ober 2015). However, FBBs also tended to take one longer foray, up to seven miles, shortly after sunset each (Ober 2015, Ober 2016). Assuming a foraging area centered on a roost with a 1-mile radius, FBBs likely forage throughout 2,010 ac, and could forage up to 98,470 ac (7 mile radius), on any given night. It is unknown how foraging behavior and needs differ among individuals (e.g., ages, sexes), seasonally and in different habitat types. The quality of habitat and the prey availability and other factors likely greatly influences the relative importance of any particular area. FBB foraging areas are also expected to be greater in areas with lower quality foraging habitat in order to meet their biological needs; which at some point would be expected to lead to a loss in fitness.

The Corps determined the proposed Project “may affect, but is not likely to adversely affect” the FBB. The Project is not expected to remove a FBB roost, as FBB foraging activities have not been documented on site and some adverse effects to potential FBB forage would be expected to be limited and may be somewhat augmented by the addition of open water forage areas in future mine areas that replace drained wetlands. Most importantly, the applicant is willing to conserve under conservation easement, the southern project area that is primarily wetlands, for future consideration as a “Flowway” associated with the CHFI. Therefore, based on the available information, the Service concurs with the Corps’ determination that the Project “may affect, but is not likely to adversely affect” the FBB.

In conclusion, the Service has reviewed the information and Corps determinations provided for the FBB, RCW, and Florida scrub jay. The Service believes there is “no effect” to the Florida scrub jay and concurs with the Corps determination of “may affect, but not likely to affect” the FBB and RCW. Bald eagle nesting is not occurring on the site.

This letter fulfills the requirements of section 7 of the Act and further action is not required. If modifications are made to the Project, if additional information involving potential effects to listed species becomes available, or if a new species is listed, reinitiation of consultation may be necessary.

Thank you for your cooperation in the effort to protect fish and wildlife resources. If you have any questions regarding this project, please contact Kim Dryden at 239-532-5614.

Sincerely yours,



Roxanna Hinzman
Field Supervisor
South Florida Ecological Services Office

Enclosures

cc: electronic only

Service, Immokalee, Florida (Kim Dryden)

Service, Vero Beach (Dave Bender)

Corps, Ft. Myers, Florida (Muriel Blaisdell)

FDEP, Ft. Myers, Florida (Patricia Clune)

EPA, West Palm Beach, Florida (Ron Miedema)

FWC, Tallahassee, Florida (FWC-CPS)

FWC, Punta Gorda, Florida (Mike Kemmerer, Andrew Pope)

W. Dexter Bender and Associates, Ft. Myers, Florida (Craig Smith)

SW Engineering and Design Punta Gorda, Florida (Gary Bayne)

SFWMD, Ft. Myers, Florida (Kim Fikoski)

Lee County, Ft. Myers, Florida (Cathy Olsen)

Charlotte County, Port Charlotte, Florida (Bill Byle)

SWFWMD, Brooksville, Florida (Lizanne Garcia)

Progressive Waste Solutions, Clearwater, Florida (Kirk Wills)

LITERATURE CITED

- Beever, J.W., and K.A. Dryden. "Red-cockaded woodpeckers and hydric slash pine flatwoods." *Transactions of the North American Wildlife and Natural Resources Conference*. 1992. 693-700.
- Ober, H. 2015. Annual report to USFWS for calendar year 2015. Permit number TE23583B-1. University of Florida, Department of Wildlife Ecology and Conservation, North Florida Research and Education Center. Quincy, Florida.
- Ober, H. 2016. Annual report to USFWS for calendar year 2016. Permit Number TE23583B-1. University of Florida, Department of Wildlife Ecology and Conservation, North Florida Research and Education Center. Quincy, Florida.
- South Florida Water Management District (SFWMD) 2015a. Charlotte Harbor Flatwoods Initiative "Vital Tidal Creeks" Land Acquisition and Conservation Prioritization Analysis. South Florida Water Management District, Ft. Myers, Florida.
- South Florida Water Management District (SFWMD). 2015b. Charlotte Flatwoods Restoration on the C. M. Webb Management Area , Conceptual Mitigation Plan, Draft Final. South Florida Water Management District, Ft. Myers, Florida.
- U.S. Army Corps of Engineers (Corps). 2016. Southwest Florida Comprehensive Watershed Plan. U.S. Army Corps of Engineers, Jacksonville District, Jacksonville, Florida.
- U.S. Fish and Wildlife Service (Service). 2010. Wood Stork Effect Determination Key. U.S. Fish and Wildlife Service; South Florida Ecological Services Offices; Vero Beach, Florida.
- U.S. Fish and Wildlife Service (Service). 2010. South Florida Programmatic Concurrence Wood Stork. Service Consultation Code 41420-2007-I-0964. May 18, 2010. South Florida Ecological Services Office. Vero Beach, Florida.
- U.S. Fish and Wildlife Service (Service). 2013a. Standard Protection Measures for the Eastern Indigo Snake. August 12, 2013. U.S. Fish and Wildlife Service, South Florida Ecological Services Office; Vero Beach, Florida.
- U.S. Fish and Wildlife Service (Service). 2013b. Florida bonneted bat consultation and focal areas. Fish and Wildlife Service, South Florida Ecological Services Office: Vero Beach Florida.
- U.S. Fish and Wildlife Service (Service). 2017. Consultation key for eastern indigo snake – revised. U.S. Fish and Wildlife Service; South Florida Ecological Services Office; Vero Beach, Florida.

