Florida Fish and Wildlife Conservation Commission

Commissioners
Kathy Barco
Chairman
Jacksonville

Kenneth W. Wright
Vice Chairman
Winter Park

Ronald M. Bergeron
Fort Lauderdale

Richard A. Corbett
Tampa

Aliese P. "Liesa" Priddy
Immokalee

Charles W. Roberts III
Tallahassee

Brian S. Yablonski
Tallahassee

Executive Staff
Nick Wiley
Executive Director

Greg Holder
Assistant Executive Director

Karen Ventimiglia
Chief of Staff

Division of Habitat & Species Conservation
Eric Sutton, Director

(850) 488-3831
(850) 921-7793 FAX

Managing fish and wildlife resources for their long-term well-being and the benefit of people.

620 South Meridian Street
Tallahassee, Florida
32399-1600
Voice: (850) 488-4676

Hearing/speech-impaired:
(800) 955-8771 (T)
(800) 955-8770 (V)

MyFWC.com

June 1st, 2012

Ms. Megan Mills
Florida Department of Environmental Protection
Submerged Lands & Environmental Resource Program
South District Office
2295 Victoria Avenue, Suite 364
Fort Myers, Florida 33902-2549

Re: **Fisheating Creek WMA- Cowbone Marsh Channel Restoration, Glades County, Sections 26, 27, 28, 32, 33 and 34, Township 40S, Range 31E, and Sections 3, 4, 5, 6, 7 and 8), Township 41S, Range 31E, ERP Permit No. 22-0303652-001**

Dear Ms. Mills,

The Florida Fish and Wildlife Conservation Commission (FWC) has prepared a permit modification package for the Fisheating Creek WMA- Cowbone Marsh Channel Restoration (ERP Permit No. 22-0303652-001). The permit modification package addresses transporting of fill material and backfilling a channel depicted in the attached plans.

This letter describes modifications to ERP 22-0303652-001 in accordance with the ERP General Conditions - Paragraph 10. In addition, attachments to the letter include the revised plans and specifications for the project.

The Florida Department of Environmental Protection (FDEP) requires that a permit modification request provide information regarding the need and intent of the proposed modifications. Those are as follows:

Reasons for Proposed Modification

In April 2010 to comply with a condition of the Fisheating Creek Settlement Agreement that required FWC to maintain and enhance navigation along Fisheating Creek, FWC utilized an Agitator to shred vegetation in Cowbone Marsh. The route followed the one depicted in the 1929 USACE survey map. FDEP and subsequently the United States Army Corps of Engineers (USACE) issued emergency orders to halt the work. The USACE referred enforcement to the United States Environmental Protection Agency (EPA).

In accordance with orders issued by these agencies, FWC immediately constructed a temporary weir and has since constructed six check dams. However, the regulatory agencies are not satisfied that impacts to the hydrology of Cowbone Marsh will be satisfactorily addressed by this method. Therefore, FWC has continued to work with USACE, EPA, FDEP and the South Florida Water Management District (SFWMD) to develop methodologies to return the cut area to pre-impact conditions as closely as possible and practicable by backfilling the channel that resulted from the Agitator operations.

Description of the Proposed Activities

1. Create a temporary access road 14-feet wide and 1.164 miles in length through an area designated as Freshwater Marshes within Cowbone Marsh in Fisheating Creek WMA to access the location of a future channel restoration project as shown in the enclosed drawing C2.01. This temporary access road will be overlaid with composite interlocking mats and will impact 2.205 acres of wetlands.
2. Utilize the temporary access road to transport approximately 27,000 Cubic Yards of sand fill obtained from a borrow pit at a location shown in Drawing C2.01.
3. Fill will be placed in the channel and spread. Backfilling will then continue progressively upstream within the channel for about 10,000 feet using the filled areas as the access for low ground pressure earth moving equipment.
4. The backfilled area will be stabilized with a native wetland seed prescription applied via hydro-seeding.
5. As soon as backfilling of the channel is completed and stabilized, the composite interlocking mats will be removed and all grades and vegetation will be restored to pre-construction activities condition.

Drawings and Specifications

Revised plans (Attachment-A) are attached on 11"x17" paper. Drawings are dated May 2012, and consist of sheets as numbered below, with each sheet bearing the following general title:

C1.01	KEY SHEET AND VICINITY MAP
C2.01	TEMPORARY ACCESS ROAD LAYOUT
C2.02	TEMPORARY ACCESS ROAD SHEETS LAYOUT
C2.03~C2.08	TEMPORARY ACCESS ROAD PLAN AND CROSS SECTIONS
C2.09	COMPOSITE MAT DETAILS
C2.10	TEMPORARY ACCESS ROUTE ALTERNATIVES TAR-1 & TAR-2
C2.11	TEMPORARY ACCESS ROUTE ALTERNATIVES TAR-3 & TAR-4
C3.01	CHANNEL SHEETS LAYOUT
C3.02~C3.10	CHANNEL PLAN VIEW AND CROSS SECTIONS
C4.01~C4.02	EROSION CONTROL DETAILS

Specifications are those contained in attached document titled Project Manual, Cowbone Marsh Channel Restoration (Attachment-B) and consisting of:

DOCUMENT TITLE	PAGES
01520 - POLLUTION CONTROL	2-4
01530 - ENVIRONMENTAL PROTECTION	5-9
02090 – EROSIN CONTROL	11-15
02100 - SITE PREPARATION	16-17
02200 – EARTHWORK	18-21
02200 – PLANTING	22-23

Construction Schedule and Implementation
Please see attached project schedule (Attachment-C)

Listed Species and Procedures to Avoid and Minimize Impacts
Please see attached document titled "Cowbone Marsh Restoration Plan - Potentially Affected Wildlife and Plants" (Attachment-D) and Section 01530 of the Project Manual – "Environmental Protection" (Attachment-B).

Avoidance
The temporary access road to the channel (proposed project) was designed to avoid filling of wetlands, avoid impacting highly compressible marsh soils, and avoid impacts to cultural resources and sensitive wildlife.

Access from both the north and south side of the project area were evaluated. Site visits of both the Herbert Hoover Dike (LD-3) (south levee) and the LD-50 (north levee) revealed that the south levee route is the desirable option for accessing the restoration area. Considerations were given to the structure, condition and location of each of the levees, as well as the potential cultural resource issues, wetland characteristics, soil characteristics and wildlife issues along each of the two routes. The north levee route was located in closer proximity to known cultural resources, the levee was much narrower and therefore not as safe or feasible for construction traffic, and was farther from the proposed fill material source.

Four potential routes to access and transport fill material to the project area were evaluated. These included two Temporary Access Routes (TAR-1 and TAR-2, Drawing C2.10) from LD-3 and two Temporary Access Routes (TAR-3 and TAR-4, Drawing C2.11) from an alternative borrow pit site on Lykes Bros., Inc. property. Considerations were given to the upland impacts, wetland characteristics, potential cultural resource issues, wildlife issues and soil characteristics along each of the four routes. Site visits revealed that TAR-3 is the preferred option for accessing the restoration area.

TAR-1 starts at Cemex Sand Mine Complex at the beginning of LD-3, continues east for approximately 4.85 miles, exits LD-3 and turns north following an existing fireline and trails on impacted wetlands for about 1.66 miles. The last portion of the route traverses minimally impacted floodplain over sandy Basinger and Floridana soils for approximately 0.65 miles.

TAR-2 is the same as TAR-1 except for the last portion of the route, which traverses minimally impacted floodplain over highly compressible Okeelanta Muck soils for approximately 0.44 miles.

TAR-3 follows an existing fireline and trails on impacted wetlands for about 0.51miles. The last portion of the route traverses minimally impacted floodplain in sandy Basinger and Floridana soils for approximately 0.65 miles.

TAR-4 is the same as TAR-3 except for the last portion of the route, which traverses minimally impacted floodplain over highly compressible Okeelanta Muck soils for approximately 0.44 miles.

Taking all these factors into consideration, the selected route (TAR-3) represents the least impactful design overall and minimizes potential impacts to wetland, wildlife and cultural resources. Additionally, it completely avoids the peat soils of the marsh (Okeelanta muck), which are highly compressible.

Minimization

The preferred route (1.164 miles) from the proposed borrow pit in Lykes Brothers, Inc. property is within an area designated as mostly Freshwater Marsh (FLUCCS 6410) and follows an existing fireline. The fireline is regularly disked, which disturbs vegetation and soils. The water storage and hydrologic function will not be significantly impacted by the proposed project, because all work will be conducted in the dry season and temporary composite mats will be used instead of fill.

The last 0.5 miles of the temporary access route traverses minimally impacted floodplain. No fill will be placed along the floodplain temporary access route. Composite interlocking mats will be used to eliminate filling of wetlands and to minimize temporary impacts to the wetlands, including soil disturbance. The area being traversed consists of Freshwater Marsh habitat, including a diverse array of herbaceous species. The entire length of the temporary access road through wetlands will be 14' wide. A 100' by 100' staging area will be located on an existing sand bar located near the beginning of the channel and at the end of the temporary access road. Mats also will be used to underlay the staging area.

Temporary impacts to the vegetative composition through the installation of the at-grade mats are expected; however, rapid recovery of the vegetative community is expected once the temporary mats are removed. This expectation is based on the fact that the mats will protect the soils from significant disturbance and compression, the seed source will remain intact and the hydrology will be appropriate to support re-growth and recruitment of appropriate species.

The total work area over wetlands is 2.205 acres (1.164 miles x 14-feet wide plus the 100-foot x 100-foot staging area). The use of mats to traverse these 2.205 acres of wetlands will have a De minimis effect on the marsh ecology. In order to ensure that the marsh vegetative community recovers appropriately, quarterly monitoring of the temporary access road will be performed upon completion of the proposed activities. Percent coverage of the vegetation will be recorded at transects across the restored road every 0.2 miles along the floodplain (except the areas currently used for firelines). The percent coverage of vegetation must be within 10% of the adjacent undisturbed marsh percent coverage within 6 months of the project completion or additional measures will be taken. Additional measures may include hydro-seeding and/or hand planting of appropriate marsh vegetation. The quarterly monitoring also will identify and record the percent coverage of exotic or undesirable species found within the footprint of the restored road. Exotic and undesirable (native invasive) species will be treated if they exceed the percent coverage of the adjacent impacted marsh by 10%.

The access road will be perpendicular to the direction of the flow; therefore, is not expected to cause harmful erosion or preferential flow paths. The temporary access road will not adversely affect the hydrologic connection of the marsh to off-site water resources and is not expected to adversely affect the frequency of inundation or saturation

of the wetland areas. The mats are designed for use in standing water; therefore, no culverts are needed to maintain hydrology. The applicant proposes to use appropriate best management practices where necessary to avoid adverse impacts to water quality. All work will be conducted in the dry season, further minimizing any impacts to hydrology and water quality of the wetlands.

Best management practices will be utilized to prevent short term water quality impacts during road improvements. There are no expected long term water quality impacts. Any impacts to soils will be restored to pre-construction grade. Through the use of the best management practices, on-site supervision by an environmental compliance officer, education of the construction personnel, and post-construction planting and monitoring, the potential for secondary impacts are minimized. Each contractor will be required to attend an educational seminar that will include information on wetlands, soils, and endangered species and their habitats. They will learn how to identify endangered species and the appropriate protocols to engage when one is spotted during construction. Additionally, an environmental compliance officer will be on-site at all times. It will be their duty to ensure that all construction personnel follow the permitting requirements.

Compensatory mitigation

There are no permanent dredging and filling activities associated with the temporary road. The road alignment was selected to minimize impacts to wetlands and has been aligned to avoid sensitive marsh peat soil types. The proposed project is temporary in nature. No secondary or cumulative impacts are anticipated. There are no permanent impacts proposed.

Impacts to the marsh vegetative community through the installation of the at-grade mats are De minimis. All other habitat, hydrologic and soil functions and connections are expected to remain the same. If removing the composite mats reveals the presence of ruts (more than 6" high) due to hauling activities, the ruts will be returned to even surface with low ground pressure earth moving equipment The area will be re-graded to match adjacent elevations to eliminate any permanent impacts. The area(s) also will be re-vegetated, if necessary. Since no specifically identifiable impacts are reasonably likely to occur, a mitigation plan is not proposed. We believe this plan of work, including the timing, logistics, and materials will result in the restoration of Cowbone Marsh with no functional disturbance to the surrounding wetland systems.

Restoration and Monitoring Plan

Please see attached document titled Cowbone Marsh Cut Backfill Plan (Attachment-E).

If you have any questions please call me at: (850) 488-5531.

Sincerely,

Mahmoud S. Madkour, Ph.D., P.E.
Professional Engineer Administrator

cc: Eric Sutton, FWC
Bud Vielhauer, FWC
Jerrie Lindsey, FWC

Attachments