



TURRELL, HALL & ASSOCIATES, INC.

MARINE & ENVIRONMENTAL CONSULTING

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August 30, 2010

Arielle Poulos
Department of Environmental Protection
2295 Victoria Avenue
Fort Myers, FL 33901

RE: Clam Bay # 11-0128463-005 RAI Response

1. Thank you for your request to conduct Environmental Restoration and Enhancement and the submittal of \$250.00 for the application fee. Your project does not appear to meet the definition of "Environmental Restoration and Enhancement" in Rule 62-4.020(6), F.A.C. (see below) and will therefore be processed as an individual permit. Please submit to the Department the required non-refundable application processing fee of \$5,610.00 (of which \$250.00 has already been paid) pursuant to Chapter 62-4 F.A.C. Please include the notation "Application Fee for File No. 11-0128463-005."

We would like to discuss this more with Department staff as, based on our reading of 62-4.020(6), F.A.C. this project appears to meet that definition exactly. The project is proposed by a governmental entity, the project is not proposed as mitigation for any permit, and the objective of the activity is to enhance water resources by maintaining the hydrology and water circulation restoration and enhancement work done under the previous permit. The sole purpose of the work was and is to re-establish the native mangrove vegetation and restore it to a more desirable natural condition. Based on this project description, and the requirements laid out in 62-4.020(6), F.A.C., we still believe that this project qualifies for the \$250 application fee. We would be interested in hearing the Departments specific reasons as to why it would not.

2. Please provide a copy of the original permit, #0128463-001-JC and the Clam Bay Restoration and Management Plan, as mentioned in your application.

Please see enclosed as requested, a copy of the 1998 Clam Bay Restoration and Management Plan. The Plan includes a copy of the DEP permit which authorized the restoration and enhancement activities that have been done to date.

3. Please submit a detailed maintenance plan that will keep those plants that are determined to be exotic and nuisance species by the Department out of the proposed restoration area and how the area is to be maintained in perpetuity. This plan should include items such as:
 - If inspections are planned and to what frequency;
 - How the exotic and nuisance vegetation is to be removed;
 - How turbidity is to be controlled during the exotic and nuisance vegetation removal process;
 - Where the extracted vegetation is to be deposited

Site inspections are made during the annual monitoring activities that occur throughout the entire site. The applicant also has a high resolution aerial photograph flown every year. The combination of aerial review with ground truthing serves to identify any areas with exotic infestation. These areas are then reported to the Pelican Bay Services Division (PBSD aka applicant) for treatment. All removal activities are carried out by hand. To date, the main exotic species that has been managed is Brazilian pepper. The exotic plants are cut above the water line and the stumps treated with Department approved herbicides. By cutting the plants above the water line, there is no contamination of the local waters when the stumps are treated. Smaller plants, when able, are pulled up entirely. Plants along the perimeter of the native area are removed but in cases where the exotics are well into the preserve and the removal would cause damage to the existing or regenerating mangroves, the cut debris is left in place to decay naturally. Where possible, the cut debris is placed so that it is not in contact with water and so the possibility of rooting of the debris is minimized. The exotic removal activities generally take place in areas above the MHW line. Accessing the areas on foot and cutting debris by hand, coupled with the fact that the exotic removal is above the MHW line means that turbidity is not an issue.

4. Your application states that your proposed mitigation is wetland enhancement, in the form of exotic removal. Please submit an exotic removal plan to the Department, which details the methods that are to be employed. This plan will include items such as:
 - How the exotics are to be removed, i.e. cut to stump and treated with a Department approved herbicide, the entire tree removed including the root system, etc.;
 - Where the exotic vegetation is to be deposited;
 - If any vehicles or other heavy machinery is to be employed in the removal process;
 - A detailed maintenance and monitoring plan that will ensure that exotic and nuisance species will be kept out of the mitigation area

In reviewing the application submittal, we are unable to find any reference to mitigation. The proposed project is maintenance of wetland enhancements that have been conducted in the past under previous Department permits. Since the proposed activities result in an overall benefit to the mangrove forest and simple maintenance of existing navigation and boardwalk pathways, no mitigation is being proposed. Exotic removal activities are conducted throughout the mangrove forest as part of the ongoing stewardship activities undertaken by the PBSD but this exotic removal is being done, and will continue to be done for the benefit of the forest, not as mitigation for the proposed channel maintenance. The exotic removal is conducted as described in the response to comment #3 above. All work is done by hand on an as needed basis. The areas are accessed on foot either from the adjacent uplands or from the water with the use of a small boat.

5. Please provide a detailed description of the construction methods to be used for the proposed project. It is noted that the application states that all maintenance activities will be done manually; however it also states that mangrove trimming will take place and the limbs will be removed from the project area. Please clarify on the methods for the restoration of the channels, mangrove trimming, material removal, etc. Please note, construction activities should be restricted to the project area. This description shall include items such as:
 - Equip used;
 - Areas used during construction activities;
 - If needed, a plan view drawing indicating the construction and stockpiling areas;
 - A statement indicating whether the construction and staging areas will be temporary or permanent in nature;

- If the areas to be used for construction are to be temporary, please indicate how long the area is to be impacted, at what time of the year it is to be impacted and details on how this area will be restored;
- If rutting of the soils, due to heavy equipment, is expected in the construction areas, please provide a detailed description of the restoration activities;

All work is done by hand. The maintenance of the flushing channels that have been dug throughout the mangrove forest is done by accessing the blocked areas on foot, and using a shovel to remove the blockage. The few shovels of material are broadcast out to the sides. This maintenance protocol has been underway for the past ten years without adverse affects and without any indication that the broadcast material simply fills back in the channel. It has been observed that the maintenance necessity is usually due to vegetative debris causing the blockage and once removed, the channel remains open unless more vegetation falls into it. It is not usually caused by fill from the adjacent area flowing into the channel. Mangrove trimming will be done on an as needed basis from the existing boardwalks or from a small boat only in areas that need to be trimmed in order to maintain access through the existing canoe trail or boardwalks. All trimming is done by hand tools (hand saw, chain saw, or clippers) and trimmed debris is hauled off either in the boat (from the navigation channel), or in a golf cart and trailer (from the boardwalk). The debris is hauled to the landscape disposal area in the PBSB service area.

6. An inspection of the project site may be conducted to determine and evaluate the resources expected to be impacted. Project modifications may be required following the inspection. For the purposes of a site inspection by Department personal, please stake the property corners with the unit and tract number and stake **all areas of impact** for the proposed project. Once this has been completed, please contact the Department at 239-332-6975, ext 184, so a site visit can be scheduled.

We would be happy to escort the Department reviewer(s) on a site visit at their convenience. The project area does not need to be staked as it is well defined by the existing surrounding development, the existing waterways, and the Gulf of Mexico.

7. Pursuant to 373.414(1), F.S., please provide reasonable assurance that this activity is not contrary to the public interest. In determining whether an activity is not contrary to the public interest, the department shall consider and balance the following criteria:

1. Whether the activity will adversely affect the public health, safety, or welfare or the property of others;

The proposed activity is the maintenance of an existing managed system to keep a mangrove system healthy and functional as well as provide public enjoyment of the area. The project was originally undertaken in 1998 to restore a dying mangrove forest. The proposed activity benefits the property of the residents in Pelican Bay by maintaining the mangrove forest; it protects the safety of residents and visitors by maintaining the existing navigation and pedestrian pathways through the area, and it benefits fish and wildlife resources by maintaining the improvements made to the system under previous permits.

2. Whether the activity will adversely affect the conservation of fish and wildlife, including endangered or threatened species, or their habitats;

The proposed project has been a benefit and will continue to be a benefit to fish and wildlife resources. The channels excavated throughout the mangrove forest provide the flushing actions necessary to maintain a healthy mangrove forest community. The regeneration of the forest since the work was undertaken shows the benefits which have been realized. The proposed activities are simply the maintenance needed to keep the system functioning and able to continue providing the benefits to fish and wildlife resources currently realized.

3. Whether the activity will adversely affect navigation or the flow of water or cause harmful erosion or shoaling;

The past 10 years of experience with this project indicate that no adverse affects to navigation or causes of shoaling are associated with the proposed activities.

4. Whether the activity will adversely affect the fishing or recreational values or marine productivity in the vicinity of the activity;

We believe that the flushing and movement of water throughout the system provided by the project is of great benefit to the nursery and habitat functions of the mangrove forest provided to fish.

5. Whether the activity will be of a temporary or permanent nature;

The overall project purpose of maintaining the flushing capacity of the forest is a permanent activity but the maintenance of the channels itself is temporary and only as needed.

6. Whether the activity will adversely affect or will enhance significant historical and archaeological resources under the provisions of 267.061, F.S.; and

No archaeological or cultural resources are affected by the proposed project.

7. The current condition and relative value of functions being performed by areas affected by the proposed activity.

The proposed project is maintenance of channels constructed to improve flushing and help in the restoration of a mangrove die-off. The system has been recovering as a result of the flushing channels and is currently in relatively good shape, recovering from the die-off, as well as from hurricane damage suffered in subsequent years. Our belief is that without the ability to maintain the channels, the system could become compromised and could be adversely affected if water levels are allowed to stack up in the forest as happened prior to the die-off.

Since the proposed management activities are in the public interest, ensuring that the overall quality and viability of the Clam Bay forest system is maintained, no mitigation or other public interest improvements are proposed.

8. Please provide information on who will be conducting any mangrove trimming and who will be supervising the trimming.

Pelican Bay Services Division has in the past and is currently the organization that conducts all mangrove trimming within the Clam Bay system.

9. It appears that the project area may have multiple conservation easements located within it. Please provide information/ maps/and documentation pertaining to the proposed area, showing where the conservation easements exist around the trimming/alteration location. Please note, trimming/alteration may be affected by the information recorded within the conservation easements.

The entire project area is part of a Natural Resource Protection Area (NRPA) established by Collier County Ordinance in 1995. The only trimming or alteration of mangroves proposed is to maintain the existing navigational pathways and boardwalk accesses. Occasionally, a mangrove tree falls over into the waterway and blocks navigation access. The PBSD would like to maintain the ability to remove these downed trees or branches in order to maintain the navigation access through the canoe trail without having to get a separate authorization each time. Likewise, trees occasionally lean over or grow down into the boardwalk and berm pathways and the PBSD would like to be able to quickly remove these branches to maintain safe access along the paths. The only other mangrove alterations proposed in the project area are the result of maintaining the stormwater system that runs along the berm and into the upland development adjacent to the project area. This activity, as has been acknowledged by the Department in the past will remain a maintenance activity associated with the stormwater system and under the review of the SFWMD. As in the past, the PBSD would notify the Department prior to any trimming being done.

Upon your review of the above if you have any questions or concerns please feel free to contact me at the above letterhead phone number.

Regards,



Tim Hall
Senior Biologist
Turrell, Hall & Associates