Appendix C

Statement of Findings

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EVERGLADES NATIONAL PARK

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FLAMINGO COMMERCIAL SERVICES PLAN/ENVIRONMENTAL ASSESSMENT

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Everglades National Park
Flamingo Commercial Services Plan
Floodplain Statement of Findings
November 2007

Introduction

The largest developed area within Everglades National Park is the Flamingo area, located at the southernmost mainland point of the park, at the end of a 38-mile paved road that extends southwest from the main visitor center near Homestead, Florida. In 2005, the Flamingo area sustained heavy infrastructural damage as a result of two consecutive hurricanes. These storms caused overwhelming impacts to already aged facilities, and many of the visitor uses and services in Flamingo had to be shut down or reduced. The Flamingo Lodge, cottages, restaurant, gift shop, and cafe were closed due to the damage caused by strong winds and six to eight foot storm surges from Hurricanes Katrina and Wilma. Historically, Flamingo was the only area providing overnight accommodations, beyond tent and recreational vehicle (RV) camping, to park visitors. Due to the loss of available services and accommodations at Flamingo, the National Park Service (NPS) was asked by the public to expedite the process for determining the site's future. As a result, the park embarked on a planning process, through the development of a Commercial Services Plan and Environmental Assessment (CSP/EA), to identify options and make decisions about Flamingo. The park is considering repairing and/or replacing the damaged facilities. At the present time there is no preferred alternative, so this statement of findings will consider the reconstruction of the Flamingo area under both action alternatives. At a minimum, the project will involve the reconstruction of the lodge, restaurant, and cottages. Certain facilities damaged by past hurricanes would also be rebuilt or replaced (amphitheater, NPS employee housing, maintenance facilities, concessioner housing, two backcountry campsites).

Justification for the Use of Floodplain

The entire Flamingo area is located within a designated high hazard zone floodplain (see EA, Affected Environment and Environmental Consequences- Water Resources – Floodplains, and figure 3-5). Although the NPS is under executive order and policy to reduce or eliminate development in floodplain, in the Flamingo area this is not possible because the entire area falls within the 100 year floodplain. Therefore, the redevelopment of Flamingo must occur within the floodplain, but the extent of development, placement of structures, and types of structures and associated facilities can be selected to minimize impacts.

Site-Specific Flood Risk

The entire Flamingo area lies at an elevation of less than 10 feet above sea level and is relatively flat. The A campground loop, walk-in and group camping areas, former lodge and cottage sites, marina, visitor center, parking, and employee housing are in the "VE" zone of the 100-year floodplain, which means that this area is also subject to storm wave action. The remainder of the primary project study area (which includes the B, C, and T Campground Loops, the Eco Pond area, the water treatment plant, and maintenance facility) is in what is classified as the "AE" 100 year floodplain zone (see EA, figure 3-5). As seen by past hurricanes and other storm events, any buildings or other facilities located in this floodplain have a high potential to be impacted by flood waters, high winds, and storm surge. The current disrepair of the buildings at Flamingo is a direct result of hurricanes Wilma and Katrina in 2005. The resulting impact of these storm events is loss of use of structures and the creation of flood debris, which can contain contaminants and must be cleaned up so as not to continue to present hazards or eyesores.

Alternative A (No Action) - Under this alternative, concessions at Flamingo would function according to current uses, which primarily focus on day users. Only the campground and limited marina slips would be available for overnight use. Certain facilities damaged by past hurricanes would be rebuilt (amphitheater, NPS employee housing, maintenance facilities, concessioner housing, backcountry chickees) (see EA, figure 2-1). The reconstruction would occur primarily in the high hazard/storm surge hazard zone, with the exception of the maintenance facility that lies further inland. Lands where the lodge and cottages used to be sited would be restored; this area is also in the high hazard storm surge zone. Flood and storm surge risk would continue to include loss of structures, creation of debris, and damage from flooding.

Alternative B – Flamingo Rebuilt – This alternative would involve reconstruction of the lodge and cottage in the same general location, within the high hazard/storm surge zone. Additional areas (the former B and C campground loops) would be restored in the high hazard zone (see EA, figure 2-2). Risks of replacing structures in the floodplain would be the same as alternative A: flood damage and loss of structures, creation of debris, plus possible releases of materials from the lodge and restaurant facilities (e.g. swimming pool chlorine, oils and greases).

Alternative C – Flamingo Redesigned - This alternative would include the lodge and cottage reconstruction in the same general area, but would relocate the RVs to the area next to the visitor center and add 40 ecotents in a portion of the area currently used for group and walk-in camping, set back from the Florida Bay shoreline. Additional areas of floodplain would be restored (the former B,C, and T campground loops and a sizeable area around Eco Pond) (see EA, figure 2-4). Risks of replacing structures in the floodplain would be the same as alternatives A and B: flood damage and loss of structures, creation of debris, plus possible releases of materials from the lodge and restaurant facilities (e.g. oils and greases).

Flood Mitigation Plans

All Alternatives:

- The overall developed footprint in the 100-year floodplain would be reduced as much as possible, given the limits and development concepts for each alternative.
- All new structures would be constructed on previously disturbed areas that have already been filled. No new fill is anticipated unless necessary for foundation purposes. No areas that are not already filled would be subject to filling or grading.
- In accordance with EO 11988, flood protection would be provided by elevating permanent accommodations, which would be built to the 2004 Florida Building Code standards for a High Hazard Hurricane Zone. The NPS would operate the area using the Everglades National Park Hurricane Plan, which is coordinated with the Monroe County Emergency Management Department. The replacement employee housing and concessioner housing would be elevated structures; the maintenance facility would meet all hurricane building codes.
- The alternatives also include the restoration of large tracts of previously developed land (see next page for details). Any sites no longer needed for replacement of facilities would be restored. This would include portions of the areas where the lodge buildings and duplex cottages stood (under all alternatives), as well as areas that would no longer be used due to consolidation and reconfiguring of the overall Flamingo area. The exact type of restoration would depend on the size and location of the area, but would generally include removal of building materials and fill or other impervious surface materials (paving), followed by grading to historic contours. Then, either the area would be allowed to revegetate naturally (coastal prairie habitat in most cases), or native species would be planted consistent with desired vegetative conditions and the surrounding

landscape. NPS would monitor the area to assess the progress of revegetation and/or any plantings and the presence of any non-native species.

Alternative A (No Action)

- All of the above measures would be adhered to, and site restoration would result in the recreation of about 27 acres of wetland habitat in the floodplain. If restored to coastal prairie or mangrove communities, vegetation will return that will help to reduce the effects of storm surges and flooding in the area.

Alternative B (Flamingo Rebuilt)

- All of the above measures would be adhered to, and site restoration would result in the recreation of about 50 acres of wetland habitat in the floodplain. If restored to coastal prairie or mangrove communities, vegetation will return that will help to reduce the effects of storm surges and flooding in the area.
- Construction of the lodge and cottage parking will use permeable paving material to increase infiltration and reduce runoff.

Alternative C (Flamingo Redesigned)

- All of the above measures would be adhered to, and site restoration would result in the recreation of about 87 acres of wetland habitat in the floodplain. If restored to coastal prairie or mangrove communities, vegetation will return that will help to reduce the effects of storm surges and flooding in the area.
- Construction of the lodge, cottage, ecotent, and RV parking will use permeable paving material to increase infiltration and reduce runoff.
- The proposed ecotents would be designed to be seasonal, so that all but the foundations could be removed during the off-season, minimizing the potential for damages.

Summary

Because all of the Flamingo area is in a 100-year floodplain, the proposed commercial services and associated facilities addressed in this EA must be located in a floodplain; there are no other siting alternatives. The continuation of uses and rebuilding of structures and facilities in the Flamingo area would result in risks from the possibility of flooding and wind/storm surge damage, with localized adverse impacts on floodplains, but there would be moderate beneficial effects from the consolidation of facilities, elevation of structures, use of flood resistant design, and restoration of a large area of previously disturbed floodplain. Therefore, floodplain values would be protected to the maximum extent possible and potential flood hazards would be minimized.