

**Statement of Findings for
Executive Order 11988**

Floodplain Management

**Owen Billie Camp:
New Home and Septic System Expansion**

Big Cypress National Preserve, Florida

Recommended:

Superintendent, Big Cypress National Preserve

Date

Certification of Technical Adequacy and Servicewide Consistency:

Chief, Water Resources Division

Date

Approved:

Director, Southeast Region

Date

INTRODUCTION

Executive Order (EO) 11988 (Floodplain Management) requires the NPS and other federal agencies to evaluate the likely impacts of actions in floodplains. The objective of EO 11988 is to avoid, to the extent possible, the long- and short-term adverse impacts associated with the occupancy and modification of floodplains and to avoid direct or indirect support of floodplain development wherever there is a practicable alternative. NPS procedures for complying with the floodplain Executive Order are outlined in NPS Directors Order and Procedural Manual 77-2, DO 77-2 and PM 77-2, respectively. This Statement of Findings (SOF) documents compliance with these NPS floodplain management procedures.

In accordance with Executive Order 11988, Floodplain Management, and National Park Service guidelines for implementing the order, the National Park Service has reviewed the flood hazards at the proposed Billie Camp expansion site in Big Cypress National Preserve and has prepared this Statement of Findings.

The purpose of this Statement of Findings is to present the rationale for choosing the Preferred Alternative stated the Environment Assessment. The Miccosukee Tribe of Indians of Florida proposes to build a new home and septic system at the Billie Camp. The project area is located along U.S. 41 (Tamiami Trail), in Collier County, Florida, 5.5 miles east of State Road 29 on the south side of the road. This action is needed in order to provide adequate housing to support a healthy and safe living environment for a tribal member at this camp. The member currently resides in a “chickee,” or traditional Miccosukee housing, and desires to advance to more adequate housing. The proposed home and septic system would be on U.S. government property.

The site proposed for expansion is immediately east of the camp and consists of 0.5 acres of palustrine forested, deciduous, seasonally flooded wetlands located within the 100-year regulatory floodplain according to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map.. The proposed action would add 5’5 feet of fill to provide a suitable base for the home and septic system.

The natural floodplain values associated with the Billie Camp expansion site include water storage, groundwater recharge, and improved water quality due to sedimentation and water filtering of contaminants by wetlands vegetation. The flooding that occurs at the site is primarily characterized by seasonal wetlands and other low-lying areas becoming inundated during the south Florida wet season. Ponding and soil saturation in these wetland areas is typically only seasonal in nature. In a severe flood, such as could occur from long durations of heavy precipitation or from Gulf of Mexico storm surges associated with hurricanes and tropical storms, it is possible for flood water to overtop the banks of nearby canals and natural waterways. Such severe flooding could affect even the camp itself, which is situated on high ground; however, the National Park Service has no records or physical proof that flooding has occurred at the camp.

JUSTIFICATION FOR USE OF THE FLOODPLAIN

The camp expansion in the regulatory floodplain is justified for the following reasons:

- The new home needs to be part of the existing Billie Camp due to familial and cultural ties.
- Constructing the home at a less flood-prone location would place it too far away from the camp
- There is no room within the existing camp for the proposed home and septic system.

DESCRIPTION OF SITE-SPECIFIC FLOOD RISK

Federal Emergency Management Agency (FEMA) Flood Insurance Rate map show what the project area is within a Zone AE flood hazard zone. Zone AE is the flood insurance rate zone that corresponds to areas within 1 percent annual chance of flooding. FEMA designates the base flood elevation (BFE) to be seven feet. The BFE is the predicted flood water elevation above mean sea level. The project will add 5.5 feet of fill to the site with a new mean grade level of 12.5 feet.

Only during periods of extreme high water could the building and septic system be flooded. Floodwater in an extreme event could originate from rising water in surrounding lowlands from high seasonal rainfall or from overtopped banks in the nearby Tamiami Canal from extreme storm surges from the southwest. If rising water from very high seasonal rainfall occurs, the flow direction at the project site would generally be towards the south-southwest. If the flooding results from overtopped banks, the direction may be reversed. However, once again, although ponding in nearby wetlands and low areas during the wet season is not uncommon, the National Park Service has identified no records or physical indication that the camp has been flooded in the past.

The timing and duration of potential flooding at the project site would vary depending on the source/type of flooding. If the flooding is a result of high seasonal rainfall, it could take weeks or perhaps months to occur. This type of flooding at the project site would allow a substantial amount of time for advanced warning to camp occupants (days or weeks). The flood duration in this case would also have a long duration due to fully saturated soils, flat terrain, and slow rate of recession.

If the flooding at the project site results from a strong hurricane or tropical storm, the timing would be shortened considerably. Because this type of flooding would result from a storm surge and rising water in the Tamiami Canal, the flooding could occur in a matter of hours. Thus, the available time for advanced warning and evacuation would be more limited because of the rapid approach of storm surges. However, forecasted hurricane warnings and early evacuation notices/orders should provide camp occupants with flood awareness hours to days in advance of the risk. The proximity of the site to U.S. 41, a major evacuation route, would also shorten the time needed to evacuate camp residents.

Notable hydrologic changes from geomorphic and erosion processes in this area are primarily only measureable at the scale of geologic time. There could be some sediment and debris deposition at this site as a result of storm surge, but the typical seasonal inundation at the project site would lack the energy to produce detectable erosion or channelization.

FLOOD MITIGATION MEASURES

The highest level of flood mitigation for the home site would be to locate the home out of the floodplain. This No-Action alternative would have no impacts on the floodplain. This option is not

feasible for the reasons previously stated. Thus, this option has not been chosen by the National Park Service. If or when the structure reaches its usable lifespan, or if a future flood results in severe damage, then the National Park Service and the Miccosukee tribe should assess possibilities for relocating the home.

The proposed action qualifies as a Class I action as defined by NPS Director's Order #77-2 (NPS 2003). Since the project site is within the 100-year regulatory floodplain impacts of the preferred alternative would affect the capacity of the floodplain to store floodwaters. The flow of water in the floodplain during floods would also be slightly affected. These impacts would be adverse but localized. The mitigation site is also located within the 100-year regulatory floodplain, and restoring the site to its original pre-disturbance elevations would benefit floodplains by restoring natural floodplain values such as soils, vegetation, and wildlife habitat, dissipation of flood energy, floodwater storage, sedimentation processes, and ground water recharge. Impacts of the preferred alternative would add a small increment to these cumulative impacts but would be offset by beneficial impacts to floodplains at the mitigation site.

The primary flood mitigation measure for protection of human life available to the Billie Camp residents is an evacuation procedure or plan, given the proximity of the camp to flooding risks. This procedure or plan would include strategies that ensure proper storm monitoring, emergency communication methods, effective evacuation routes, and timely emergency evacuation notification for all residents and visitors. The camp is located on a major highway in the area (U.S. 41), a convenient evacuation route for camp residents and visitors. Depending on storm trajectory or flooding dynamics, evacuees could seek higher ground by driving east or west via U.S. 41. The most ideal and safest evacuation route would be determined by local emergency management system authorities during the time of the storm.

Camp residents, like all residents of Collier County, should closely monitor the news media and the National Weather Service before, during, and after a flooding event. The Collier County emergency management system is well developed and has proven to be very successful at providing people in the area with advanced warning of potential floods. During past floods, this emergency management system has given warning well in advance of storm activity, leaving ample time for evacuation.

The primary flood mitigation measure to protect the capital investment of the project is to elevate the structure on fill to a level of 12.5 ft., which is 5.5 ft. above the elevation of the Regulatory Flood.

SUMMARY

The National Park Service has determined that there is no practicable alternative to locating the new home at the Billie Camp site. This determination is primarily based on: (1) the new home needs to be part of the existing Owen Billie Camp due to familial and cultural ties, (2) constructing the home at a less flood-prone location would place it too far away from the camp. (3) There is no room within the existing camp for the proposed home and septic system.

The primary flood mitigation measure for the protection of human life at the site is to develop an evacuation procedure or plan for the camp residents. Although the site is within or near areas subject to flooding, there would be ample time to warn residents and visitors using the camp to evacuate the area. If a flood occurs, residents and visitors could evacuate to higher ground via U.S. 41. The primary flood mitigation measure to protect the capital investment of the project is to elevate the structure on fill to a level of 12.5 ft., which is 5.5 ft. above the elevation of the Regulatory Flood.